

# **DIVIDER**

**STATE OF NORTH DAKOTA  
INFORMATION TECHNOLOGY DEPARTMENT  
SFN 2053 (4-2002)**

**PU-07-790  
Northern States Power Company  
Minnesota Integrated Resource Plan  
Information  
Filed 12/19/2007      Closed 12/20/2007**

**07**



# ELECTRIC UTILITY ANNUAL REPORT

TO THE

MINNESOTA DEPARTMENT  
OF COMMERCE

MINN. RULES 7610.0100 – 7610.0700

SUBMITTED BY  
NORTHERN STATES POWER COMPANY,  
A WHOLLY-OWNED SUBSIDIARY OF  
XCEL ENERGY INC.  
JULY 2007



## Minnesota Electric Utility Annual Report – July 2007

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**7610.0120 REGISTRATION.**

Any electric utility that commences operations in the state shall file a registration statement with the commissioner within 30 days after commencing operation. Each registration statement shall be on forms issued by the commissioner and shall contain the name and headquarter address of the utility, the type of utility, the names and addresses of all officers of the utility, and the name, address, and telephone number of a person who may be contacted for information about the utility. Registration statements must be updated as a part of each utility's annual report.

**Please update this registration statement annually.**

|                                                                                                                                          |                                                                                                                          |                                                |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--|
| Utility Name<br>Northern States Power Company                                                                                            |                                                                                                                          | Federal ID No.<br>41-1967505                   |  |
| Address<br>414 Nicollet Mall                                                                                                             |                                                                                                                          | City, State, Zip Code<br>Minneapolis, MN 55401 |  |
| Telephone (include area code)<br>(612) 330-5500                                                                                          | Utility Type: <input type="checkbox"/> Private <input checked="" type="checkbox"/> Public <input type="checkbox"/> Co-op |                                                |  |
| Utility Officers (list name, title, and address if different from above):<br><br>See following page.<br>_____<br>_____<br>_____<br>_____ |                                                                                                                          |                                                |  |
| Contact Name<br>Jennifer Sanner                                                                                                          | Title<br>Regulatory Administrator                                                                                        | Telephone<br>(612) 330-1925                    |  |
| Contact Address<br>414 Nicollet Mall                                                                                                     | City, State, Zip Code<br>Minneapolis, MN 55401                                                                           |                                                |  |
| Contact Email Address<br>jennifer.sanner@xcelenergy.com                                                                                  |                                                                                                                          |                                                |  |
| Name of Person Preparing Forms<br>Various                                                                                                | Preparer's Title                                                                                                         | Date<br>July 2007                              |  |

**7610.0150 FEDERAL OR STATE DATA SUBSTITUTION.**

Upon written request by any utility, the commissioner may allow it to substitute data provided to the federal government or another state agency in lieu of data required by these parts if the data required by both agencies is substantially the same.

| Federal Agency                      | Form Number | Form Title | Filing Cycle |        |       |
|-------------------------------------|-------------|------------|--------------|--------|-------|
|                                     |             |            | Monthly      | Yearly | Other |
| See following section<br>7610.0170. | _____       | _____      | _____        | _____  | _____ |
|                                     | _____       | _____      | _____        | _____  | _____ |
|                                     | _____       | _____      | _____        | _____  | _____ |
|                                     | _____       | _____      | _____        | _____  | _____ |
|                                     | _____       | _____      | _____        | _____  | _____ |

## 7610.0120 Registration – Officers

### NORTHERN STATES POWER COMPANY

#### Officers:

|                                      |                         |
|--------------------------------------|-------------------------|
| Chairman                             | Richard C. Kelly        |
| President & CEO                      | Cynthia L. Leshner      |
| Executive VP, Acting President & CEO | David M. Sparby         |
| Vice President                       | Paul J. Bonavia         |
| Vice President                       | David M. Wilks          |
| Vice President & General Counsel     | Michael C. Connelly     |
| Vice President & CFO                 | Benjamin G.S. Fowke III |
| Vice President & Treasurer           | George E. Tyson II      |
| Vice President & Controller          | Teresa S. Madden        |
| Vice President & Secretary           | Cathy J. Hart           |
| Vice President                       | Raymond E. Gogel        |

Northern States Power Company is a Minnesota corporation and a wholly-owned subsidiary of Xcel Energy Inc. and uses the trade name Xcel Energy. The Company will be referred to as “NSP” or “Xcel Energy” in this report.

## 7610.0170 – Federal Reports Filed by Utilities

| <u>Federal Agency</u>                | <u>Form No.</u> | <u>Form Title</u>                                                          | <u>Cycle</u>  |
|--------------------------------------|-----------------|----------------------------------------------------------------------------|---------------|
| Federal Energy Regulatory Commission | Form 1          | Annual Report of Major Electric Utilities, Licensees and Others            | Annually      |
| Federal Energy Regulatory Commission | Form 3Q         | Quarterly Report of Major Electric Utilities, Licensees and Others         | Quarterly     |
| Federal Energy Regulatory Commission | Form 80         | Licensed Hydropower Development Recreation Report                          | Every 6 Years |
| Federal Energy Regulatory Commission | Form 423        | Monthly Cost and Quality of Fuels for Electric Plants                      | Monthly       |
| Federal Energy Regulatory Commission | Form 516        | Electronic Quarterly Report                                                | Quarterly     |
| Federal Energy Regulatory Commission | Form 561        | Interlocking Directorships or Conflict of Interest                         | Annually      |
| Federal Energy Regulatory Commission | Form 566        | Twenty Largest Electric Customers                                          | Annually      |
| Federal Energy Regulatory Commission | Form 580        | Interrogatory on Fuel and Energy Purchases Practices                       | Bi-Annually   |
| Federal Energy Regulatory Commission | Form 714        | Annual Electric Control and Planning Area Report                           | Annually      |
| Federal Energy Regulatory Commission | Form 715        | Annual Transmission Planning and Evaluation Report                         | Annually      |
| Federal Energy Regulatory Commission | Form 2056       | Statement of Generation in kWh for Hydropower – Annual Charges for Project | Annually      |
| Federal Energy Regulatory Commission |                 | Annual Nuclear Decommissioning Trust Report                                | Annually      |

**7610.0170 – Federal Reports Filed by Utilities**  
(continued)

| <u>Federal Agency</u>                | <u>Form No.</u>           | <u>Form Title</u>                                                                  | <u>Cycle</u>     |
|--------------------------------------|---------------------------|------------------------------------------------------------------------------------|------------------|
| Federal Energy Regulatory Commission | Reporting Requirement 582 | Annual Charges Report                                                              | Annually         |
| Securities Exchange Commission       | Form 10-K                 | Annual Financial Statements                                                        | Annually         |
| Securities Exchange Commission       | Form 10-Q                 | Quarterly Financial Statements                                                     | Quarterly        |
| Securities Exchange Commission       | Form 8-K                  | Disclosure of Interim Events                                                       | Periodic         |
| Securities Exchange Commission       | Form 11-K                 | 401(k) Benefit Plan                                                                | Annually         |
| Securities Exchange Commission       | Form 3                    | Initial Disclosures for Statement of Changes in Beneficial Ownership of Securities | Annually         |
| Securities Exchange Commission       | Form 4                    | Statement of Changes in Beneficial Ownership of Securities                         | Annually         |
| Securities Exchange Commission       | Form S                    | Registration Statements                                                            | Periodic         |
| Securities Exchange Commission       | Schedule 14A              | Proxy Statement                                                                    | Annually         |
| U.S. Department of Commerce          | BE 10                     | Benchmark Survey of U.S. Direct Investment Abroad                                  | Every Five Years |
| U.S. Department of Commerce          | BE 11A                    | Survey of U.S. Direct Investment Abroad                                            | Annually         |
| U.S. Department of Energy            | DOE 906M                  | Power Plant Report                                                                 | Monthly          |
| U.S. Department of Energy            | EIA-411                   | Coordinated Bulk Power Supply Report                                               | Annually         |
| U.S. Department of Energy            | EIA-457A                  | Residential Energy Consumption Survey                                              | Quadrennially    |

7610.0170 – Federal Reports Filed by Utilities  
(continued)

| <u>Federal Agency</u>     | <u>Form No.</u> | <u>Form Title</u>                                                                                 | <u>Cycle</u>  |
|---------------------------|-----------------|---------------------------------------------------------------------------------------------------|---------------|
| U.S. Department of Energy | EIA-759         | Monthly Power Plant Report                                                                        | Monthly       |
| U.S. Department of Energy | EIA-767         | Steam-Electric Plant<br>Operation and Design Report                                               | Annually      |
| U.S. Department of Energy | EIA-826         | Monthly Electric Sales &<br>Revenue Report with State<br>Distributions                            | Monthly       |
| U.S. Department of Energy | EIA-860         | Annual Electric Generator<br>Report                                                               | Annually      |
| U.S. Department of Energy | EIA-860M        | Monthly Update to Annual<br>Electric Generator Report                                             | Monthly       |
| U.S. Department of Energy | EIA-861         | Annual Electric Utility<br>Report                                                                 | Annually      |
| U.S. Department of Energy | EIA-871A/I      | Commercial Building Energy<br>Consumption Survey                                                  | Quadrennially |
| U.S. Department of Energy | EIA-906A        | Power Plant Report                                                                                | Annually      |
| U.S. Department of Energy | RW-859          | Nuclear Fuel Data                                                                                 | Quadrennially |
| U.S. Department of Energy | NWPA-830R       | Standard Contract for<br>Disposal of Spent Nuclear<br>Fuel and/or High Level<br>Radioactive Waste | Quarterly     |
| Internal Revenue Service  | Form 990        | Return of Organization<br>Exempt from Income Tax                                                  | Annually      |
| Internal Revenue Service  | Form 1120       | Corporate Income Tax<br>Return                                                                    | Annually      |
| Internal Revenue Service  | Form 5500       | Annual Return/Report of<br>Employee Benefit Plan                                                  | Annually      |

**7610.0600 B – Names, Addresses, and Electricity Consumed by Largest Customers**

**[TRADE SECRET DATA]**

This information is being submitted separately.

7610.0600 C – Detailed map of the utility's Minnesota service area, identifying power plants, principle substations and transmission lines over 200 kilovolts, identified by voltage.

[SECURITY INFORMATION]

This map is being submitted separately.

**7610.0600 D – Sales for Resale and Purchases from Other Utilities**

See the following pages from Xcel Energy's 2006 FERC Form 1.



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|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours Sold<br>(g) | REVENUE                 |                         |                        | Total (\$) (h+i+j)<br>(k) | Line No. |
|----------------------------|-------------------------|-------------------------|------------------------|---------------------------|----------|
|                            | Demand Charges (\$) (h) | Energy Charges (\$) (i) | Other Charges (\$) (j) |                           |          |
| 1,008                      | 178,920                 | -919,582                | 50                     | -740,612                  | 1        |
| 360,037                    | 1,544,808               | 14,264,610              | 886                    | 15,810,304                | 2        |
| 678                        | 17,705                  | 8,430                   | 237                    | 26,372                    | 3        |
| 8,094                      | 86,167                  | 369,640                 | 259                    | 456,066                   | 4        |
| 900                        | 69,248                  | -34,871                 | 39                     | 34,416                    | 5        |
| 344                        | 3,869                   | 8,989                   | 74                     | 12,932                    | 6        |
| 3,479                      | 42,024                  | 159,554                 | 260                    | 201,838                   | 7        |
| 3,573                      | 46,584                  | 166,039                 | 260                    | 212,883                   | 8        |
| 69                         | 3,060                   | -237                    | 21                     | 2,844                     | 9        |
| 24,098                     | 24,577                  | 1,114,595               | 96                     | 1,139,268                 | 10       |
| 434                        | 328,653                 | -7,262                  | 295                    | 321,686                   | 11       |
| 1,117                      | 38,908                  | -8,009                  | 24                     | 30,923                    | 12       |
| 74,084                     | 767,024                 | 3,154,658               | 282                    | 3,921,964                 | 13       |
| 789                        | 26,071                  | 4,173                   | 21                     | 30,265                    | 14       |
|                            |                         |                         |                        |                           |          |
|                            |                         |                         |                        |                           |          |
|                            |                         |                         |                        |                           |          |
| 7,384,511                  | 6,920,561               | 271,823,397             | -65,599                | 278,678,359               |          |
| 7,925,435                  | 954,575                 | 342,020,206             | 0                      | 342,974,781               |          |
| 15,309,946                 | 7,875,136               | 613,843,603             | -65,599                | 621,653,140               |          |

Page 310.1

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                       |                               |                              | Total (\$)<br>(h+i+j)<br>(k) | Line<br>No. |
|-------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|-------------|
|                               | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                              |             |
|                               |                               | -294,482                      |                              | -294,482                     | 1           |
| 86                            |                               | 27,824                        | 190                          | 28,014                       | 2           |
| 43,956                        | 342,891                       | 1,885,755                     | -106,346                     | 2,122,300                    | 3           |
| 73,964                        | 655,878                       | 3,187,927                     | 295                          | 3,844,100                    | 4           |
| 253                           | 46,909                        | -35,752                       | 151                          | 11,308                       | 5           |
| 119,544                       | 1,407,097                     | 1,677,750                     | 161                          | 3,085,008                    | 6           |
| 888                           | -3,428                        | 6,206                         | -23                          | 2,755                        | 7           |
| 27,027                        | 155,671                       | 1,215,695                     | 5,799                        | 1,377,165                    | 8           |
| 6,426,022                     |                               | 236,458,791                   |                              | 236,458,791                  | 9           |
| 2,264                         | 13,006                        | 120,742                       | 9                            | 133,757                      | 10          |
| 181,192                       | 1,107,454                     | 7,901,479                     | 31,041                       | 9,039,974                    | 11          |
| 526                           | -157,306                      | -59,125                       | 25                           | -216,406                     | 12          |
| 30,085                        | 174,771                       | 1,429,925                     | 295                          | 1,604,991                    | 13          |
|                               |                               | -9,929                        |                              | -9,929                       | 14          |
| 7,384,511                     | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359                  |             |
| 7,925,435                     | 954,575                       | 342,020,206                   | 0                            | 342,974,781                  |             |
| 15,309,946                    | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140                  |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                                      |                                            |                                            |                                   |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Repo.<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4    |                                            |                                   |                                  |
| <b>SALES FOR RESALE (Account 447)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                      |                                            |                                            |                                   |                                  |
| <p>1. Report all sales for resale (i.e., sales to purchasers other than ultimate consumers) transacted on a settlement basis other than power exchanges during the year. Do not report exchanges of electricity (i.e., transactions involving a balancing of debits and credits in energy, capacity, etc.) and any settlements for imbalanced exchanges on this schedule. Power exchanges must be reported on the phased Power schedule (Page 326-327).</p> <p>2. Enter the name of the purchaser in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the purchaser.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:<br/> RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate consumers.<br/> LF - for long-term service. "Long-term" means five years or Longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for Long-term firm service which meets the definition of RQ service. For all transactions identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.<br/> IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but Less than five years.<br/> SF - for short-term firm service. Use this category for all firm services where the duration of each period of commitment for service is one year or less.<br/> LU - for Long-term service from a designated generating unit. "Long-term" means five years or Longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of designated unit.<br/> IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means Longer than one year but Less than five years.</p> |                                                                                                                       |                                      |                                            |                                            |                                   |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a)                                                 | Statistical Classification<br>(b)    | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                                      |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Utilities Plus- Take or Pay                                                                                           | RQ                                   | 470                                        | N/A                                        | N/A                               | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ameren Energy                                                                                                         | OS                                   | 0                                          |                                            |                                   |                                  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | American Electric Power                                                                                               | SF                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ames Municipal Electric System                                                                                        | OS                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Associated Electric Coop Inc                                                                                          | OS                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Associated Electric Coop Inc                                                                                          | SF                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Basin Electric Power                                                                                                  | SF                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Cargill Power Markets                                                                                                 | SF                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Cincinnati Gas and Elec                                                                                               | SF                                   | 0                                          | N/A                                        | N/A                               | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | City of Delano CMMPA                                                                                                  | AD                                   | 470                                        | N/A                                        | N/A                               | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | City of Delano CMMPA                                                                                                  | OS                                   | 470                                        | N/A                                        | N/A                               | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | City of Glencoe CMMPA                                                                                                 | AD                                   | 470                                        | N/A                                        | N/A                               | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | City of Glencoe CMMPA                                                                                                 | OS                                   | 470                                        | N/A                                        | N/A                               | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | City of Granite Falls CMMPA                                                                                           | AD                                   | 530                                        | N/A                                        | N/A                               | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                                      |                                            |                                            |                                   |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Subtotal RQ                                                                                                           |                                      |                                            | 0                                          | 0                                 | 0                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Subtotal non-RQ                                                                                                       |                                      |                                            | 0                                          | 0                                 | 0                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total                                                                                                                 |                                      |                                            | 0                                          | 0                                 | 0                                |

|                                                                 |                                                                                                                       |                                      |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>11 | Year/Period of Report<br>End of 2006/Q4 |
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SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                       |                               |                              | Total (\$) (h+i+j)<br>(k) | Line No. |
|-------------------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|----------|
|                               | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                           |          |
|                               |                               | 29,864                        |                              | 29,864                    | 1        |
|                               | 367,200                       |                               |                              | 367,200                   | 2        |
| 18,400                        |                               | 1,017,600                     |                              | 1,017,600                 | 3        |
| 44                            |                               | 3,143                         |                              | 3,143                     | 4        |
| 1,120,975                     |                               | 43,264,824                    |                              | 43,264,824                | 5        |
| 5,136                         |                               | 176,000                       |                              | 176,000                   | 6        |
| 2,652                         |                               | 16,700                        |                              | 16,700                    | 7        |
| 800                           |                               | 48,000                        |                              | 48,000                    | 8        |
| 4,000                         |                               | 208,200                       |                              | 208,200                   | 9        |
| 222                           |                               | 56,534                        |                              | 56,534                    | 10       |
| 27,148                        |                               | 1,854,627                     |                              | 1,854,627                 | 11       |
| 136                           |                               | 71,681                        |                              | 71,681                    | 12       |
| 46,725                        |                               | 3,090,314                     |                              | 3,090,314                 | 13       |
| 14                            |                               | 8,359                         |                              | 8,359                     | 14       |
|                               |                               |                               |                              |                           |          |
|                               |                               |                               |                              |                           |          |
| 7,384,511                     | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359               |          |
| 7,925,435                     | 954,575                       | 342,020,206                   | 0                            | 342,974,781               |          |
| 15,309,946                    | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140               |          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission |                                            | Date of<br>(Mo, Da, Yr)<br>/ /             | Year/Period of Report<br>End of 2006/Q4                                               |
| SALES FOR RESALE (Account 447)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
| <p>1. Report all sales for resale (i.e., sales to purchasers other than ultimate consumers) transacted on a settlement basis other than power exchanges during the year. Do not report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges on this schedule. Power exchanges must be reported on the Purchased Power schedule (Page 326-327).</p> <p>2. Enter the name of the purchaser in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the purchaser.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:<br/> RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate consumers.<br/> LF - for long-term service. "Long-term" means five years or Longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for Long-term firm service which meets the definition of RQ service. For all transactions identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.<br/> IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but Less than five years.<br/> SF - for short-term firm service. Use this category for all firm services where the duration of each period of commitment for service is one year or less.<br/> LU - for Long-term service from a designated generating unit. "Long-term" means five years or Longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of designated unit.<br/> IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means Longer than one year but Less than five years.</p> |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b)                                                                                     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)<br>Average Monthly NCP Demand (e)<br>Average Monthly CP Demand (f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Granite Falls CMMPA                                           | OS                                                                                                                    | 530                                        | N/A                                        | N/A                                                                                   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Granite Falls CMMPA                                           | SF                                                                                                                    | 530                                        | N/A                                        | N/A                                                                                   |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Hastings                                                      | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                                                                   |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Hastings                                                      | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                                                                   |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Janesville                                                    | AD                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Janesville                                                    | OS                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Kenyon CMMPA                                                  | AD                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Kenyon CMMPA                                                  | OS                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Lake Crystal CMMPA                                            | AD                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | City of Lake Crystal CMMPA                                            | OS                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | City of Mountain Lake CMMPA                                           | AD                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | City of Mountain Lake CMMPA                                           | OS                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | City of Truman                                                        | AD                                                                                                                    | 470                                        | N/A                                        | N/A                                                                                   |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Constellation Energy                                                  | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subtotal RQ                                                           |                                                                                                                       |                                            | 0                                          | 0                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subtotal non-RQ                                                       |                                                                                                                       |                                            | 0                                          | 0                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Total                                                                 |                                                                                                                       |                                            | 0                                          | 0                                                                                     |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                    |                            |                           | Total (\$) (h+i+j)<br>(k) | Line No. |
|-------------------------------|----------------------------|----------------------------|---------------------------|---------------------------|----------|
|                               | Demand Charges (\$)<br>(h) | Energy Charges (\$)<br>(i) | Other Charges (\$)<br>(j) |                           |          |
| 4,831                         |                            | 300,234                    |                           | 300,234                   | 1        |
| 436                           |                            | 25,899                     |                           | 25,899                    | 2        |
| 28                            |                            | 6,366                      |                           | 6,366                     | 3        |
| 73                            |                            | 3,422                      |                           | 3,422                     | 4        |
| 106                           |                            | 14,939                     |                           | 14,939                    | 5        |
| 6,849                         |                            | 465,085                    |                           | 465,085                   | 6        |
| 70                            |                            | 21,435                     |                           | 21,435                    | 7        |
| 9,931                         |                            | 679,097                    |                           | 679,097                   | 8        |
| 98                            |                            | 22,233                     |                           | 22,233                    | 9        |
| 9,787                         |                            | 663,501                    |                           | 663,501                   | 10       |
| 30                            |                            | 20,536                     |                           | 20,536                    | 11       |
| 10,161                        |                            | 658,800                    |                           | 658,800                   | 12       |
| 103                           |                            | 21,031                     |                           | 21,031                    | 13       |
| 1,600                         |                            | 147,200                    |                           | 147,200                   | 14       |
|                               |                            |                            |                           |                           |          |
|                               |                            |                            |                           |                           |          |
| 7,384,511                     | 6,920,561                  | 271,823,397                | -65,599                   | 278,678,359               |          |
| 7,925,435                     | 954,575                    | 342,020,206                | 0                         | 342,974,781               |          |
| 15,309,946                    | 7,875,136                  | 613,843,603                | -65,599                   | 621,653,140               |          |



| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission |                                            | Date of Report<br>(Mo, Da, Yr)<br>/ /      | Year/Period of Report<br>End of 2006/Q4 |                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------------|----------------------------------|
| SALES FOR RESALE (Account 447)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| <p>1. Report all sales for resale (i.e., sales to purchasers other than ultimate consumers) transacted on a settlement basis other than power exchanges during the year. Do not report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges on this schedule. Power exchanges must be reported on the Purchased Power schedule (Page 326-327).</p> <p>2. Enter the name of the purchaser in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the purchaser.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:<br/> RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate consumers.<br/> LF - for long-term service. "Long-term" means five years or Longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for Long-term firm service which meets the definition of RQ service. For all transactions identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.<br/> IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but Less than five years.<br/> SF - for short-term firm service. Use this category for all firm services where the duration of each period of commitment for service is one year or less.<br/> LU - for Long-term service from a designated generating unit. "Long-term" means five years or Longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of designated unit.<br/> IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means Longer than one year but Less than five years.</p> |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b)                                                                                     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                      |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            | Average Monthly NCP Demand<br>(e)       | Average Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GEN-SYS Energy                                                        | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GEN-SYS Energy                                                        | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GEN-SYS Energy                                                        | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Great River Energy                                                    | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Great River Energy                                                    | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Great River Energy                                                    | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Great River Energy                                                    | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Heartland Consumers                                                   | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Independent Electricity System Operator                               | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Independent Electricity System Operator                               | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Independent Electricity System Operator                               | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lighthouse Energy                                                     | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lighthouse Energy                                                     | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manitoba Hydro                                                        | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subtotal RQ                                                           |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subtotal non-RQ                                                       |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Total                                                                 |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**SALES FOR RESALE (Account 447) (Continued)**

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours Sold<br>(g) | REVENUE                       |                               |                              | Total (\$)<br>(h+i+j)<br>(k) | Line No. |
|----------------------------|-------------------------------|-------------------------------|------------------------------|------------------------------|----------|
|                            | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                              |          |
| 2,080                      |                               | 10,988                        |                              | 10,988                       | 1        |
| 1,580                      |                               | 73,645                        |                              | 73,645                       | 2        |
| 9                          |                               | -186                          |                              | -186                         | 3        |
| 2,080                      |                               | 26,642                        |                              | 26,642                       | 4        |
| 60,500                     |                               | 975,705                       |                              | 975,705                      | 5        |
|                            | 144,375                       |                               |                              | 144,375                      | 6        |
| 134,650                    |                               | 2,153,096                     |                              | 2,153,096                    | 7        |
|                            | 45,000                        |                               |                              | 45,000                       | 8        |
| -12,667                    |                               | -1,558,871                    |                              | -1,558,871                   | 9        |
| 273,292                    |                               | 10,635,797                    |                              | 10,635,797                   | 10       |
| 14,171                     |                               | 1,681,501                     |                              | 1,681,501                    | 11       |
| 800                        |                               | 28,000                        |                              | 28,000                       | 12       |
| 48,819                     |                               | 2,432,665                     |                              | 2,432,665                    | 13       |
| 152,027                    |                               | 7,217,825                     |                              | 7,217,825                    | 14       |
|                            |                               |                               |                              |                              |          |
|                            |                               |                               |                              |                              |          |
| 7,384,511                  | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359                  |          |
| 7,925,435                  | 954,575                       | 342,020,206                   | 0                            | 342,974,781                  |          |
| 15,309,946                 | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140                  |          |

Page 310.5



|                                                                 |                                                                                                                       |                                      |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, L, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours Sold<br>(g) | REVENUE                    |                            |                           | Total (\$) (h+i+j)<br>(k) | Line No. |
|----------------------------|----------------------------|----------------------------|---------------------------|---------------------------|----------|
|                            | Demand Charges (\$)<br>(h) | Energy Charges (\$)<br>(i) | Other Charges (\$)<br>(j) |                           |          |
| 70                         |                            | 5,016                      |                           | 5,016                     | 1        |
| 249                        |                            | 5,021                      |                           | 5,021                     | 2        |
| 17                         |                            | 2,739                      |                           | 2,739                     | 3        |
| 71                         |                            | -942                       |                           | -942                      | 4        |
| 191                        |                            | 229                        |                           | 229                       | 5        |
| 1,250                      |                            | 13,384                     |                           | 13,384                    | 6        |
| 624                        |                            | 9,310                      |                           | 9,310                     | 7        |
| 187                        |                            | 2,668                      |                           | 2,668                     | 8        |
| 167,343                    |                            | 9,060,118                  |                           | 9,060,118                 | 9        |
|                            |                            | -1,523                     |                           | -1,523                    | 10       |
| 151,983                    |                            | 6,535,496                  |                           | 6,535,496                 | 11       |
| 575,138                    |                            | 25,880,365                 |                           | 25,880,365                | 12       |
| 800                        |                            | 44,080                     |                           | 44,080                    | 13       |
|                            |                            | -3,098                     |                           | -3,098                    | 14       |
|                            |                            |                            |                           |                           |          |
|                            |                            |                            |                           |                           |          |
|                            |                            |                            |                           |                           |          |
|                            |                            |                            |                           |                           |          |
| 7,384,511                  | 6,920,561                  | 271,823,397                | -65,599                   | 278,678,359               |          |
| 7,925,435                  | 954,575                    | 342,020,206                | 0                         | 342,974,781               |          |
| 15,309,946                 | 7,875,136                  | 613,843,603                | -65,599                   | 621,653,140               |          |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission |                                            | Date of Report<br>(Mo, Da, Yr)<br>/ /      | Year/Period of Report<br>End of 2006/Q4 |                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------------|----------------------------------|
| SALES FOR RESALE (Account 447)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| <p>1. Report all sales for resale (i.e., sales to purchasers other than ultimate consumers) transacted on a settlement basis other than power exchanges during the year. Do not report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges on this schedule. Power exchanges must be reported on the Purchased Power schedule (Page 326-327).</p> <p>2. Enter the name of the purchaser in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the purchaser.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:<br/> RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate consumers.<br/> LF - for long-term service. "Long-term" means five years or Longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for Long-term firm service which meets the definition of RQ service. For all transactions identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.<br/> IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but Less than five years.<br/> SF - for short-term firm service. Use this category for all firm services where the duration of each period of commitment for service is one year or less.<br/> LU - for Long-term service from a designated generating unit. "Long-term" means five years or Longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of designated unit.<br/> IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means Longer than one year but Less than five years.</p> |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b)                                                                                     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                      |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            | Average Monthly NCP Demand<br>(e)       | Average Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | North Western Energy, LLC                                             | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Omaha Public Pwr District                                             | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Omaha Public Pwr District                                             | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Otter Tail Power                                                      | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Otter Tail Power                                                      | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PJM Interconnection                                                   | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PJM Interconnection                                                   | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PJM Interconnection                                                   | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rochester Public Utilities                                            | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Southern Minnesota Municipal                                          | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Southern Minnesota Municipal                                          | OS                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Southern Minnesota Municipal                                          | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Split Rock Energy                                                     | AD                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Split Rock Energy                                                     | SF                                                                                                                    | 0                                          | N/A                                        | N/A                                     | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| Subtotal RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                       |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |
| Subtotal non-RQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                       |                                                                                                                       |                                            | 0                                          | 0                                       | 0                                |

|                                                                 |                                                                                                                       |                                         |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo., Da., Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                       |                               |                              | Total (\$) (h+i+j)<br>(k) | Line No. |
|-------------------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|----------|
|                               | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                           |          |
| 35                            |                               | -210                          |                              | -210                      | 1        |
| 198                           |                               | 15,484                        |                              | 15,484                    | 2        |
| 644                           | 1,000                         |                               |                              | 1,000                     | 3        |
| 984                           | -15,500                       | 30,859                        |                              | 15,359                    | 4        |
|                               | 412,500                       |                               |                              | 412,500                   | 5        |
|                               |                               | -722,015                      |                              | -722,015                  | 6        |
| 78,103                        |                               | 1,289,486                     |                              | 1,289,486                 | 7        |
| 296,422                       |                               | 6,034,742                     |                              | 6,034,742                 | 8        |
| 4                             |                               | -222                          |                              | -222                      | 9        |
| 2,080                         |                               | 6,773                         |                              | 6,773                     | 10       |
| 46                            |                               | 201                           |                              | 201                       | 11       |
| 32                            |                               | -432                          |                              | -432                      | 12       |
| 3,200                         |                               | 274,800                       |                              | 274,800                   | 13       |
| 893                           |                               | 13,774                        |                              | 13,774                    | 14       |
|                               |                               |                               |                              |                           |          |
|                               |                               |                               |                              |                           |          |
|                               |                               |                               |                              |                           |          |
| 7,384,511                     | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359               |          |
| 7,925,435                     | 954,575                       | 342,020,206                   | 0                            | 342,974,781               |          |
| 15,309,946                    | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140               |          |





|                                                                 |                                                                                                                       |                                        |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, - -, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last-line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                       |                               |                              | Total (\$<br>(h+i+j)<br>(k) | Line<br>No. |
|-------------------------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|-------------|
|                               | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                             |             |
| 1,600                         |                               | 73,760                        |                              | 73,760                      | 1           |
| -3,200                        |                               | -274,800                      |                              | -274,800                    | 2           |
| 800                           |                               | 38,400                        |                              | 38,400                      | 3           |
| 125                           |                               | 4,450                         |                              | 4,450                       | 4           |
| 692                           |                               | -3,377                        |                              | -3,377                      | 5           |
| 299                           |                               | 53,893                        |                              | 53,893                      | 6           |
| 18,321                        |                               | 1,193,297                     |                              | 1,193,297                   | 7           |
|                               |                               |                               |                              |                             | 8           |
|                               |                               |                               |                              |                             | 9           |
|                               |                               |                               |                              |                             | 10          |
|                               |                               |                               |                              |                             | 11          |
|                               |                               |                               |                              |                             | 12          |
|                               |                               |                               |                              |                             | 13          |
|                               |                               |                               |                              |                             | 14          |
|                               |                               |                               |                              |                             |             |
|                               |                               |                               |                              |                             |             |
| 7,384,511                     | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359                 |             |
| 7,925,435                     | 954,575                       | 342,020,206                   | 0                            | 342,974,781                 |             |
| 15,309,946                    | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140                 |             |

|                                                                 |                                                                                                                       |                                      |                                  |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>11 | Year/Period of Report<br>2006/Q4 |
| FOOTNOTE DATA                                                   |                                                                                                                       |                                      |                                  |

**Schedule Page: 310 Line No.: 1 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 3 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 5 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 6 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 9 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 11 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 12 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310 Line No.: 14 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 2 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 5 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 7 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 9 Column: a**

|                                           |                                                                                                                       |                                       |                                  |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------|
| Name of Respondent                        | This Report is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>2006/Q4 |
| Northern States Power Company (Minnesota) |                                                                                                                       |                                       |                                  |
| FOOTNOTE DATA                             |                                                                                                                       |                                       |                                  |

Ownership interest or affiliation per Instruction 2:

Northern States Power Co. (a Minnesota corporation) and Northern States Power Co. (a Wisconsin corporation) are both wholly owned operating utility subsidiaries of Xcel Energy Inc.

**Schedule Page: 310.1 Line No.: 10 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 12 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.1 Line No.: 14 Column: b**

AD - out of period adjustment

Necessary to report as statistical classification RQ on the face of page 310 to calculate the subtotal of RQ sales correctly.

**Schedule Page: 310.2 Line No.: 10 Column: a**

CMMPA refers to Central Minnesota Municipal Power Agency

**Schedule Page: 310.7 Line No.: 10 Column: a**

Ownership interest or affiliation per Instruction 2:

Southern Minnesota Municipal Power Agency owns 41 percent, and Northern States Power Co. (a Minnesota corporation) owns 59 percent, of the Sherco Unit 3 electric generating station.

**Schedule Page: 310.7 Line No.: 11 Column: a**

Ownership interest or affiliation per Instruction 2:

Southern Minnesota Municipal Power Agency owns 41 percent, and Northern States Power Co. (a Minnesota corporation) owns 59 percent, of the Sherco Unit 3 electric generating station.

**Schedule Page: 310.7 Line No.: 12 Column: a**

Ownership interest or affiliation per Instruction 2:

Southern Minnesota Municipal Power Agency owns 41 percent, and Northern States Power Co. (a Minnesota corporation) owns 59 percent, of the Sherco Unit 3 electric generating station.

**Schedule Page: 310.8 Line No.: 5 Column: a**

Western Area Power Authority

**Schedule Page: 310.8 Line No.: 8 Column: a**

Total revenue and volumes sold will not match pages 300-1, line 11, due to differences in accounting classification associated with the Northern States Power Co. (a Minnesota corporation) and Northern States Power Co. (a Wisconsin corporation) Interchange Agreement. See Note 13 to the Financial Statements.

|                                | Revenue              |            | Mwh              |
|--------------------------------|----------------------|------------|------------------|
| page 300, line 11(b)           | \$385,194,349        | line 11(d) | 8,883,924        |
| page 311 total (k)             | 621,653,140          | total (g)  | 15,309,946       |
| less net interchange agreement | (236,458,791)        |            | (6,426,022)      |
|                                | <u>\$385,194,349</u> |            | <u>8,883,924</u> |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4    |                                            |                                   |                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
| PURCHASED POWER (Account 555)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                       |                                       |                                            |                                            |                                   |                                  |
| <p>1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.</p> <p>Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>IF - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>Other - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                                                                       |                                       |                                            |                                            |                                   |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a)                                                 | Statistical Classification<br>(b)     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                       |                                       |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Agassiz Beach, LLC                                                                                                    | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Agassiz Beach, LLC                                                                                                    | AD                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Alan and Joyce Steinhoff                                                                                              | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Albert and Meredith Kellen                                                                                            | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Amerex Power                                                                                                          | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ames Municipal Electric                                                                                               | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Associated Electric Cooperativ                                                                                        | OS                                    | 6                                          | N/A                                        | N/A                               | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Barron                                                                                                                | OS                                    | 103                                        | N/A                                        | N/A                               | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Barron                                                                                                                | AD                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Boeve Windfarm, LLC                                                                                                   | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Boeve Windfarm, LLC                                                                                                   | AD                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | BP Energy Co.                                                                                                         | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bruce and Alice Kinner                                                                                                | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Burdette and Viola Hurley                                                                                             | OS                                    |                                            | N/A                                        | N/A                               | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                       |                                       |                                            |                                            |                                   |                                  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                                       |                                            |                                            |                                   |                                  |

|                                                                 |                                                                                                                       |                             |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.

5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.

7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.

8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.

9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 4,998                              |                                   |                                    |                               | 203,065                       |                              | 203,065                                    | 1           |
| -468                               |                                   |                                    |                               | -18,673                       |                              | -18,673                                    | 2           |
|                                    |                                   |                                    |                               | 4,140                         |                              | 4,140                                      | 3           |
|                                    |                                   |                                    |                               | 9,951                         |                              | 9,951                                      | 4           |
|                                    |                                   |                                    |                               |                               | 8,449                        | 8,449                                      | 5           |
| 8                                  |                                   |                                    |                               | 466                           |                              | 466                                        | 6           |
| 50                                 |                                   |                                    |                               | 5,750                         |                              | 5,750                                      | 7           |
| 9                                  |                                   |                                    |                               | 423                           |                              | 423                                        | 8           |
| -3                                 |                                   |                                    |                               | -56                           |                              | -56                                        | 9           |
| 4,962                              |                                   |                                    |                               | 166,168                       |                              | 166,168                                    | 10          |
| 1                                  |                                   |                                    |                               |                               |                              |                                            | 11          |
| 800                                |                                   |                                    |                               | 33,960                        |                              | 33,960                                     | 12          |
|                                    |                                   |                                    |                               | 15,092                        |                              | 15,092                                     | 13          |
|                                    |                                   |                                    |                               | 11,673                        |                              | 11,673                                     | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                       | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission |                                            | Date of Report<br>(Mo, Da, Yr)<br>/ /      | Year/Period of Report<br>End of 2006/Q4 |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------------|----------------------------------|
| PURCHASED POWER (Account 555)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| <p>1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.<br/>Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or useonyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>IF - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>1 - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b)                                                                                     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                      |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                       |                                                                                                                       |                                            |                                            | Average Monthly NCP Demand<br>(e)       | Average Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Byllesby Hydro                                                        | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Byllesby Hydro                                                        | AD                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Calpine Energy Services, L.P.                                         | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cargill Power Markets                                                 | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Carlton College                                                       | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Carlton College                                                       | AD                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Central MN Municipal Power Age                                        | OS                                                                                                                    | 470.2                                      | N/A                                        | N/A                                     | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Central MN Municipal Power Age                                        | AD                                                                                                                    | 470.2                                      | N/A                                        | N/A                                     | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Chanarambie Power Partners                                            | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Chanarambie Power Partners                                            | AD                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Cincinnati Gas and Electric                                           | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Citadel Energy                                                        | OS                                                                                                                    |                                            | N/A                                        | N/A                                     | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | City of Hastings                                                      | OS                                                                                                                    | 2                                          | N/A                                        | N/A                                     | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | City of Hastings                                                      | AD                                                                                                                    | 2                                          | N/A                                        | N/A                                     | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                       |                                                                                                                       |                                            |                                            |                                         |                                  |

|                                                                 |                                                                                                                       |                                           |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo., Day, Yr)<br>1 / 1 | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 11,565                             |                                   |                                    | 414,448                       | 473,849                       |                              | 888,297                                    | 1           |
| 29                                 |                                   |                                    |                               | 1,885                         |                              | 1,885                                      | 2           |
|                                    |                                   |                                    | 50,000                        |                               |                              | 50,000                                     | 3           |
|                                    |                                   |                                    |                               | -10,292                       | -24,000                      | -34,292                                    | 4           |
| 4,133                              |                                   |                                    |                               | 136,359                       |                              | 136,359                                    | 5           |
| -113                               |                                   |                                    |                               | -3,742                        |                              | -3,742                                     | 6           |
|                                    |                                   |                                    | 15,500                        |                               |                              | 15,500                                     | 7           |
| 2,080                              |                                   |                                    |                               |                               |                              |                                            | 8           |
| 235,603                            |                                   |                                    |                               | 6,018,056                     |                              | 6,018,056                                  | 9           |
| 1                                  |                                   |                                    |                               |                               |                              |                                            | 10          |
| 1,600                              |                                   |                                    |                               | 96,240                        |                              | 96,240                                     | 11          |
|                                    |                                   |                                    |                               | -441,696                      | 447,696                      | 6,000                                      | 12          |
| 24,198                             |                                   |                                    | 680,856                       | 387,651                       |                              | 1,068,507                                  | 13          |
| -19                                |                                   |                                    |                               | -74,020                       |                              | -74,020                                    | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4       |                                               |                                      |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------------|-------------------------------------|
| PURCHASED POWER (Account 555)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                       |                                       |                                               |                                               |                                      |                                     |
| <p>Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.</p> <p>Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or useonyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>F - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>Other - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                                                                       |                                       |                                               |                                               |                                      |                                     |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a)                                                 | Statistical Classification<br>(b)     | FERC Rate Schedule or<br>Tariff Number<br>(c) | Average Monthly Billing<br>Demand (MW)<br>(d) | Actual Demand (MW)                   |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                               |                                               | Average<br>Monthly NCP Demand<br>(e) | Average<br>Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Clement Weber                                                                                                         | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Connexus Energy                                                                                                       | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Constellation Energy Commoditi                                                                                        | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Constellation Energy Commoditi                                                                                        | AD                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Daniel and Barbara Coulter                                                                                            | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Darrell and Shirley Houselog                                                                                          | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | David and Doreen Kallemeyn                                                                                            | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DTE Energy                                                                                                            | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Duke Energy Trading                                                                                                   | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dynegy Power Marketing                                                                                                | OS                                    | 6                                             | N/A                                           | N/A                                  | N/A                                 |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | East Ridge                                                                                                            | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Eau Galle                                                                                                             | OS                                    | IPP                                           | N/A                                           | N/A                                  | N/A                                 |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Eau Galle                                                                                                             | AD                                    | IPP                                           | N/A                                           | N/A                                  | N/A                                 |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Entergy Services                                                                                                      | OS                                    |                                               | N/A                                           | N/A                                  | N/A                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                               |                                               |                                      |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Total                                                                                                                 |                                       |                                               |                                               |                                      |                                     |



|                                                                 |                                                                                                                       |                                     |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo., Yr.)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
|                                    |                                   |                                    |                               | 12,419                        |                              | 12,419                                     | 1           |
|                                    |                                   |                                    |                               | 371                           |                              | 371                                        | 2           |
| 800                                |                                   |                                    | 205,000                       | 44,000                        | -34,466                      | 214,534                                    | 3           |
| 508                                |                                   |                                    |                               | 86,796                        |                              | 86,796                                     | 4           |
|                                    |                                   |                                    |                               | 4,416                         |                              | 4,416                                      | 5           |
|                                    |                                   |                                    |                               | 1,000                         |                              | 1,000                                      | 6           |
|                                    |                                   |                                    |                               | 9,951                         |                              | 9,951                                      | 7           |
|                                    |                                   |                                    | 644,290                       |                               |                              | 644,290                                    | 8           |
| 106                                |                                   |                                    |                               | 9,010                         |                              | 9,010                                      | 9           |
|                                    |                                   |                                    | 1,500,840                     |                               |                              | 1,500,840                                  | 10          |
| 14,118                             |                                   |                                    |                               | 454,624                       |                              | 454,624                                    | 11          |
|                                    |                                   |                                    |                               | 31                            |                              | 31                                         | 12          |
|                                    |                                   |                                    |                               | 9                             |                              | 9                                          | 13          |
| 1,875                              |                                   |                                    |                               | 142,150                       |                              | 142,150                                    | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                       |                                            |                                            |                                                                                       |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|-----|
| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4    |                                            |                                                                                       |     |
| PURCHASED POWER (Account 555)<br>(including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                       |                                       |                                            |                                            |                                                                                       |     |
| <p>1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.<br/>Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>IF - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>  - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                                                                       |                                       |                                            |                                            |                                                                                       |     |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a)                                                 | Statistical Classification<br>(b)     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)<br>Average Monthly NCP Demand (e)    Average Monthly CP Demand (f) |     |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Eric and Gail Petersen                                                                                                | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Exelon Generation Co.                                                                                                 | OS                                    | 6,2                                        | N/A                                        | N/A                                                                                   | N/A |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Fey Windfarm, LLC                                                                                                     | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Fey Windfarm, LLC                                                                                                     | AD                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ford Motor Co.                                                                                                        | OS                                    | IPP                                        | N/A                                        | N/A                                                                                   | N/A |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ford Motor Co.                                                                                                        | AD                                    | IPP                                        | N/A                                        | N/A                                                                                   | N/A |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Fortis Energy Marketing                                                                                               | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FPL Energy Mower County, LLC                                                                                          | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Garwin McNeilus                                                                                                       | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Garwin McNeilus                                                                                                       | AD                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gen-Sys Energy                                                                                                        | OS                                    | 2                                          | N/A                                        | N/A                                                                                   | N/A |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gen-Sys Energy                                                                                                        | AD                                    | 2                                          | N/A                                        | N/A                                                                                   | N/A |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | George and Rosemarie Kallemeyn                                                                                        | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gertrude and Harold Jasper                                                                                            | OS                                    |                                            | N/A                                        | N/A                                                                                   | N/A |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                       |                                            |                                            |                                                                                       |     |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                       |                                       |                                            |                                            |                                                                                       |     |

|                                                                 |                                                                                                                       |                           |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date<br>(Mo, , Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555), (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.

5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.

7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.

8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.

9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
|                                    |                                   |                                    |                               | 5,146                         |                              | 5,146                                      | 1           |
|                                    |                                   |                                    | 156,250                       |                               |                              | 156,250                                    | 2           |
| 5,526                              |                                   |                                    |                               | 193,418                       |                              | 193,418                                    | 3           |
|                                    |                                   |                                    |                               | -18                           |                              | -18                                        | 4           |
| 58,795                             |                                   |                                    |                               | 2,302,055                     |                              | 2,302,055                                  | 5           |
| 6,138                              |                                   |                                    |                               | 339,203                       |                              | 339,203                                    | 6           |
|                                    |                                   |                                    |                               |                               | 625                          | 625                                        | 7           |
| 26,047                             |                                   |                                    |                               | 949,412                       |                              | 949,412                                    | 8           |
| 79,623                             |                                   |                                    |                               | 2,546,683                     |                              | 2,546,683                                  | 9           |
| 21                                 |                                   |                                    |                               |                               |                              |                                            | 10          |
| 61                                 |                                   |                                    |                               | 3,461                         |                              | 3,461                                      | 11          |
| 4,357                              |                                   |                                    |                               | 229,556                       |                              | 229,556                                    | 12          |
|                                    |                                   |                                    |                               | 28,432                        |                              | 28,432                                     | 13          |
|                                    |                                   |                                    |                               | 14,216                        |                              | 14,216                                     | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

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|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
|                                    |                                   |                                    |                               |                               | 3,592                        | 3,592                                      | 1           |
|                                    |                                   |                                    |                               | 11,593                        |                              | 11,593                                     | 2           |
| 226,097                            |                                   |                                    |                               | 3,703,026                     |                              | 3,703,026                                  | 3           |
| 2,080                              |                                   |                                    |                               | 13,433                        |                              | 13,433                                     | 4           |
| 1                                  |                                   |                                    |                               |                               |                              |                                            | 5           |
| 220,433                            |                                   |                                    | 8,247,873                     | 2,759,488                     |                              | 11,007,361                                 | 6           |
| -1,846                             |                                   |                                    | -592                          | -1,393,811                    |                              | -1,394,403                                 | 7           |
|                                    |                                   |                                    |                               | 10,164                        |                              | 10,164                                     | 8           |
| 3                                  |                                   |                                    |                               | 90                            |                              | 90                                         | 9           |
|                                    |                                   |                                    |                               |                               | 1,696                        | 1,696                                      | 10          |
| 316,593                            |                                   |                                    |                               | 13,268,923                    |                              | 13,268,923                                 | 11          |
| 1,586                              |                                   |                                    |                               | 118,690                       |                              | 118,690                                    | 12          |
|                                    |                                   |                                    |                               |                               | 18,894                       | 18,894                                     | 13          |
| 800                                |                                   |                                    |                               | 33,600                        |                              | 33,600                                     | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |



|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

PURCHASED POWER (Account 555) (Continued)  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 4,820                              |                                   |                                    |                               | 161,543                       |                              | 161,543                                    | 1           |
| -84                                |                                   |                                    |                               | -2,808                        |                              | -2,808                                     | 2           |
| 384                                |                                   |                                    |                               | 12,513                        |                              | 12,513                                     | 3           |
| 3,873                              |                                   |                                    |                               | 137,492                       |                              | 137,492                                    | 4           |
| 6,137                              |                                   |                                    |                               | 205,585                       |                              | 205,585                                    | 5           |
|                                    |                                   |                                    |                               | 19,405                        |                              | 19,405                                     | 6           |
| 867,636                            |                                   |                                    | 4,314,807                     | 40,864,768                    |                              | 45,179,575                                 | 7           |
| 156,040                            |                                   |                                    | 781,612                       | 6,665,240                     |                              | 7,446,852                                  | 8           |
| 531,170                            |                                   |                                    |                               | 15,164,367                    |                              | 15,164,367                                 | 9           |
| -18,022                            |                                   |                                    |                               | 316,330                       |                              | 316,330                                    | 10          |
| 28,009                             |                                   |                                    |                               | 1,428,846                     |                              | 1,428,846                                  | 11          |
|                                    |                                   |                                    |                               | 11,582                        |                              | 11,582                                     | 12          |
|                                    |                                   |                                    |                               | -6,460                        |                              | 6,460                                      | 13          |
| 6,172                              |                                   |                                    |                               |                               |                              |                                            | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |





Page 327.6



|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.

5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.

7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.

8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.

9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 1,282                              |                                   |                                    |                               | 142,798                       |                              | 142,798                                    | 1           |
| 7,613,020                          |                                   |                                    |                               | 426,848,153                   |                              | 426,848,153                                | 2           |
| -177,193                           |                                   |                                    |                               | -1,178,047                    |                              | -1,178,047                                 | 3           |
| 40,400                             |                                   |                                    |                               | 2,324,716                     |                              | 2,324,716                                  | 4           |
| 4,931                              |                                   |                                    | 1,200,000                     | 205,970                       |                              | 1,405,970                                  | 5           |
| 336,204                            |                                   |                                    | 12,703,404                    | 4,057,220                     |                              | 16,760,624                                 | 6           |
|                                    |                                   |                                    | -113,913                      | -692,750                      |                              | -806,663                                   | 7           |
| 33,560                             |                                   |                                    |                               | 1,107,454                     |                              | 1,107,454                                  | 8           |
| 168,548                            |                                   |                                    | 24,000                        | 5,459,835                     | 341,578                      | 5,825,413                                  | 9           |
| 4,856                              |                                   |                                    | 444,658                       | 206,956                       |                              | 651,614                                    | 10          |
| 17,565                             |                                   |                                    | 346,575                       | 186,344                       |                              | 532,919                                    | 11          |
| 1,323                              |                                   |                                    | 37,254                        | 12,172                        |                              | 49,426                                     | 12          |
| 30                                 |                                   |                                    |                               | -411                          |                              | -411                                       | 13          |
| 141,113                            |                                   |                                    |                               | 4,234,238                     |                              | 4,234,238                                  | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>1 / 1 / | Year/Period of Report<br>End of 2006/Q4    |                                            |                                   |                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
| PURCHASED POWER (Account 555)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                       |                                           |                                            |                                            |                                   |                                  |
| <p>1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.</p> <p>Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>IF - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>- for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                                                                       |                                           |                                            |                                            |                                   |                                  |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a)                                                 | Statistical Classification<br>(b)         | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                                           |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Moraine Wind, LLC                                                                                                     | AD                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Muscatine Power                                                                                                       | OS                                        | 2                                          | N/A                                        | N/A                               | N/A                              |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NAE - North Shaokatan                                                                                                 | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NAE - North Shaokatan                                                                                                 | AD                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NAE - Ruthon Ridge                                                                                                    | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NAE - Ruthon Ridge                                                                                                    | AD                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nebraska Public Power                                                                                                 | OS                                        | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Neshonoc Hydro                                                                                                        | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Neshonoc Hydro                                                                                                        | AD                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | New England Independent System                                                                                        | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | New York Independent System Op                                                                                        | OS                                        | 2                                          | N/A                                        | N/A                               | N/A                              |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | New York Independent System Op                                                                                        | AD                                        | 2                                          | N/A                                        | N/A                               | N/A                              |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Norgaard North                                                                                                        | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Norgaard South                                                                                                        | OS                                        |                                            | N/A                                        | N/A                               | N/A                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                                           |                                            |                                            |                                   |                                  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                           |                                            |                                            |                                   |                                  |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.

5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.

7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.

8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.

9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| -4,057                             |                                   |                                    |                               | -116,071                      |                              | -116,071                                   | 1           |
| 9                                  |                                   |                                    |                               | 270                           |                              | 270                                        | 2           |
| 31,062                             |                                   |                                    |                               | 1,273,540                     |                              | 1,273,540                                  | 3           |
| -917                               |                                   |                                    |                               | -36,622                       |                              | -36,622                                    | 4           |
| 45,671                             |                                   |                                    |                               | 1,874,741                     |                              | 1,874,741                                  | 5           |
| -1,539                             |                                   |                                    |                               | -61,522                       |                              | -61,522                                    | 6           |
| 113                                |                                   |                                    |                               | 10,439                        |                              | 10,439                                     | 7           |
| 1,836                              |                                   |                                    | 63,199                        | 43,107                        |                              | 106,306                                    | 8           |
| 26                                 |                                   |                                    |                               | -227                          |                              | -227                                       | 9           |
| 164,872                            |                                   |                                    |                               | 8,640,165                     |                              | 8,640,165                                  | 10          |
| 469,162                            |                                   |                                    |                               | 21,281,079                    |                              | 21,281,079                                 | 11          |
| 1                                  |                                   |                                    |                               | 564                           |                              | 564                                        | 12          |
| 8,131                              |                                   |                                    |                               | 254,245                       |                              | 254,245                                    | 13          |
| 5,370                              |                                   |                                    |                               | 171,013                       |                              | 171,013                                    | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission |                                            | Date of Report<br>(Mo, Da, Yr)<br>/ /      | Year/Period of Report<br>End of 2006/Q4                                                 |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------|-----|
| PURCHASED POWER (Account 555)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                       |                                                                                                                       |                                            |                                            |                                                                                         |     |
| <p>1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.</p> <p>2. Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.</p> <p>3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:</p> <p>RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.</p> <p>LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.</p> <p>IF - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.</p> <p>LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.</p> <p>IU - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.</p> <p>EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.</p> <p>IS - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.</p> |                                                                       |                                                                                                                       |                                            |                                            |                                                                                         |     |
| Line No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b)                                                                                     | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)<br>Average Monthly NCP Demand (e)      Average Monthly CP Demand (f) |     |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Norman Pahl                                                           | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Northern Indiana Public Servic                                        | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Northern States Power Energy M                                        | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Olsen Windfarm                                                        | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Olsen Windfarm                                                        | AD                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Omaha Public Power District                                           | OS                                                                                                                    | 6,2                                        | N/A                                        | N/A                                                                                     | N/A |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Otter Tail Power Co.                                                  | OS                                                                                                                    | 2,161,309,502                              | N/A                                        | N/A                                                                                     | N/A |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Otter Tail Power Co.                                                  | AD                                                                                                                    | 2,161,309,502                              | N/A                                        | N/A                                                                                     | N/A |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Paul and Lois Erschens                                                | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pine Bend Landfill LLC                                                | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pine Bend Landfill LLC                                                | AD                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pipestone                                                             | OS                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pipestone                                                             | AD                                                                                                                    |                                            | N/A                                        | N/A                                                                                     | N/A |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PJM Interconnection                                                   | OS                                                                                                                    | 5                                          | N/A                                        | N/A                                                                                     | N/A |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                       |                                                                                                                       |                                            |                                            |                                                                                         |     |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.

5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.

7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.

8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.

9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
|                                    |                                   |                                    |                               | 17,006                        |                              | 17,006                                     | 1           |
| 1,600                              |                                   |                                    |                               | 73,600                        |                              | 73,600                                     | 2           |
|                                    |                                   |                                    |                               | 15                            |                              | 15                                         | 3           |
| 3,290                              |                                   |                                    |                               | 111,874                       |                              | 111,874                                    | 4           |
| -174                               |                                   |                                    |                               | -5,916                        |                              | -5,916                                     | 5           |
| 479                                |                                   |                                    |                               | 42,410                        |                              | 42,410                                     | 6           |
| 2,447                              |                                   |                                    | -24,000                       | 675,782                       | 7,711,349                    | 8,363,131                                  | 7           |
|                                    |                                   |                                    |                               |                               | -168,285                     | -168,285                                   | 8           |
|                                    |                                   |                                    |                               | 23,621                        |                              | 23,621                                     | 9           |
| 60,731                             |                                   |                                    | 1,472,672                     | 766,506                       |                              | 2,239,178                                  | 10          |
| 22                                 |                                   |                                    | -1,554                        | -329,622                      |                              | -331,176                                   | 11          |
| 23,234                             |                                   |                                    |                               | 766,696                       |                              | 766,696                                    | 12          |
| -703                               |                                   |                                    |                               | -23,196                       |                              | -23,196                                    | 13          |
| 243,143                            |                                   |                                    |                               | 2,460,614                     |                              | 2,460,614                                  | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

|                                           |                                                                                                    |                                |                       |
|-------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| Name of Respondent                        | This Report Is:                                                                                    | Date of Report<br>(Mo, Da, Yr) | Year/Period of Report |
| Northern States Power Company (Minnesota) | (1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | /    /                         | End of 2006/Q4        |

1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of bids and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.

3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:

LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.

SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.

IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means longer than one year but less than five years.

JS - for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.



|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
|                                    |                                   |                                    |                               | -729,236                      |                              | -729,236                                   | 1           |
| 17,600                             |                                   |                                    |                               | 984,720                       |                              | 984,720                                    | 2           |
| 112                                |                                   |                                    |                               | 10,358                        |                              | 10,358                                     | 3           |
|                                    |                                   |                                    |                               | -1,372                        |                              | -1,372                                     | 4           |
| 4,730                              |                                   |                                    | 116,289                       | 60,924                        |                              | 177,213                                    | 5           |
| 38                                 |                                   |                                    | 5,947                         | -106,212                      |                              | -100,265                                   | 6           |
| 198                                |                                   |                                    |                               | 6,526                         |                              | 6,526                                      | 7           |
| 2,011                              |                                   |                                    |                               | 66,367                        |                              | 66,367                                     | 8           |
|                                    |                                   |                                    | 10,320                        |                               |                              | 10,320                                     | 9           |
|                                    |                                   |                                    |                               |                               | 1,095                        | 1,095                                      | 10          |
| 1,588                              |                                   |                                    |                               | 51,737                        |                              | 51,737                                     | 11          |
| 33,879                             |                                   |                                    |                               | 1,729,551                     |                              | 1,729,551                                  | 12          |
| 154,450                            |                                   |                                    | 6,611,520                     | 3,116,982                     |                              | 9,728,502                                  | 13          |
|                                    |                                   |                                    |                               | 88,611                        |                              | 88,611                                     | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555)**  
(Including power exchanges)

1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.
- Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.
3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:

**RQ** - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.

**LF** - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.

**IF** - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.

**SF** - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.

**LU** - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.

**IU** - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.

**EX** - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.

- for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.

| Line No. | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b) | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|----------|-----------------------------------------------------------------------|-----------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
|          |                                                                       |                                   |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
| 1        | South Ridge                                                           | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 2        | Southern MN Municipal Power                                           | OS                                | 2                                          | N/A                                        | N/A                               | N/A                              |
| 3        | Southern MN Municipal Power                                           | AD                                | 2                                          | N/A                                        | N/A                               | N/A                              |
| 4        | Split Rock Energy                                                     | OS                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 5        | Split Rock Energy                                                     | AD                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 6        | St. Cloud                                                             | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 7        | St. Cloud                                                             | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
| 8        | St. Paul CoGen                                                        | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 9        | St. Paul CoGen                                                        | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
| 10       | Steven and Bonnie Steinhoff                                           | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 11       | Tenaska Power Services                                                | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 12       | The Energy Authority                                                  | OS                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 13       | Tholen                                                                | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 14       | Tholen                                                                | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
|          | Total                                                                 |                                   |                                            |                                            |                                   |                                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                                       |                                         |                               |                              |                                            |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
| Name of Respondent<br>Northern States Power Company (Minnesota)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |                               |                              |                                            |             |
| PURCHASED POWER (Account 555) (Continued)<br>(Including power exchanges)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                       |                                       |                                         |                               |                              |                                            |             |
| <p>AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.</p> <p>4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.</p> <p>5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.</p> <p>6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.</p> <p>7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.</p> <p>8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.</p> <p>9. Footnote entries as required and provide explanations following all required data.</p> |                                                                                                                       |                                       |                                         |                               |                              |                                            |             |
| MegaWatt Hours<br>Purchased<br>(g)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MegaWatt Hours<br>Received<br>(h)                                                                                     | MegaWatt Hours<br>Delivered<br>(i)    | Demand Charges<br>(\$)<br>(j)           | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) | Line<br>No. |
| 1,632                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                         | 53,835                        |                              | 53,835                                     | 1           |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                       |                                         | 213                           |                              | 213                                        | 2           |
| 2,080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                         |                               |                              |                                            | 3           |
| 1,854                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       | 379,500                                 | 192,558                       | -99,755                      | 472,303                                    | 4           |
| 144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       |                                       | -10,320                                 | 5,672                         |                              | -4,648                                     | 5           |
| 39,520                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                       | 1,518,302                               | 503,296                       |                              | 2,021,598                                  | 6           |
| -144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                       |                                       |                                         | -254,699                      |                              | -254,699                                   | 7           |
| 158,539                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                       |                                       |                                         | 22,307,219                    |                              | 22,307,219                                 | 8           |
| -39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       |                                       |                                         | -159,102                      |                              | -159,102                                   | 9           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                                       |                                         | 4,428                         |                              | 4,428                                      | 10          |
| 2,400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                         | 120,800                       |                              | 120,800                                    | 11          |
| 1,633                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                       |                                         | 14,725                        |                              | 14,725                                     | 12          |
| 40,287                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                       |                                         | 1,425,968                     |                              | 1,425,968                                  | 13          |
| -1,173                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                       |                                         | -38,718                       |                              | -38,718                                    | 14          |
| 19,159,766                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                       |                                       | 136,038,017                             | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

|                                           |                                                                                                    |                                |                       |
|-------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| Name of Respondent                        | This Report Is:                                                                                    | Date of Report<br>(Mo, Da, Yr) | Year/Period of Report |
| Northern States Power Company (Minnesota) | (1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | / /                            | End of 2006/Q4        |

PURCHASED POWER (Account 555)  
(Including power exchanges)

1. Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.
- Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.
- In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:

RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.

LF - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.

IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but less than five years.

SF - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.

LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.

IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means longer than one year but less than five years.

EX - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.

- for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.

| Line No. | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b) | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|----------|-----------------------------------------------------------------------|-----------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
|          |                                                                       |                                   |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
| 1        | Velva Windfarm                                                        | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 2        | Velva Windfarm                                                        | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
| 3        | Verle and Audrey Thompson                                             | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 4        | Viking                                                                | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 5        | Weber Kenetech                                                        | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 6        | Wesley and Lana Alderson                                              | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 7        | Westar Energy                                                         | OS                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 8        | Western Area Power Administrat                                        | OS                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 9        | Western Area Power Administrat                                        | AD                                | 6,2                                        | N/A                                        | N/A                               | N/A                              |
| 10       | Westridge                                                             | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 11       | Windcurrent Farms, LLC                                                | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 12       | Windcurrent Farms, LLC                                                | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
| 13       | Windpower Partners 1993, LP (F                                        | DS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 14       | Windpower Partners 1993, LP (F                                        | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
|          | Total                                                                 |                                   |                                            |                                            |                                   |                                  |

|                                                                 |                                                                                                                       |                                     |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Yr)<br>1 / 1 | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 27,800                             |                                   |                                    |                               | 907,176                       |                              | 907,176                                    | 1           |
| 81                                 |                                   |                                    |                               | 2,025                         |                              | 2,025                                      | 2           |
|                                    |                                   |                                    |                               | 1,429                         |                              | 1,429                                      | 3           |
| 36,668                             |                                   |                                    |                               | 1,210,044                     |                              | 1,210,044                                  | 4           |
|                                    |                                   |                                    |                               | 38,089                        |                              | 38,089                                     | 5           |
|                                    |                                   |                                    |                               | 18,682                        |                              | 18,682                                     | 6           |
| 300                                |                                   |                                    |                               | 17,400                        |                              | 17,400                                     | 7           |
| 12,172                             |                                   |                                    |                               | 246,668                       |                              | 246,668                                    | 8           |
|                                    |                                   |                                    |                               | 50                            |                              | 50                                         | 9           |
| 20,756                             |                                   |                                    |                               | 705,724                       |                              | 705,724                                    | 10          |
| 5,735                              |                                   |                                    |                               | 200,676                       |                              | 200,676                                    | 11          |
| 1                                  |                                   |                                    |                               | 16                            |                              | 16                                         | 12          |
| 54,291                             |                                   |                                    |                               | 2,949,652                     |                              | 2,949,652                                  | 13          |
| -2,629                             |                                   |                                    |                               | -148,668                      |                              | -148,668                                   | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555)**  
(including power exchanges)

- Report all power purchases made during the year. Also report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges.  
Enter the name of the seller or other party in an exchange transaction in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the seller.
- In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:

**RQ** - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projects load for this service in its system resource planning). In addition, the reliability of requirement service must be the same as, or second only to, the supplier's service to its own ultimate consumers.

**LF** - for long-term firm service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service firm service which meets the definition of RQ service. For all transaction identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.

**IF** - for intermediate-term firm service. The same as LF service expect that "intermediate-term" means longer than one year but less than five years.

**SF** - for short-term service. Use this category for all firm services, where the duration of each period of commitment for service is one year or less.

**LU** - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.

**IU** - for intermediate-term service from a designated generating unit. The same as LU service expect that "intermediate-term" means longer than one year but less than five years.

**EX** - For exchanges of electricity. Use this category for transactions involving a balancing of debits and credits for energy, capacity, etc. and any settlements for imbalanced exchanges.

**-** for other service. Use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote for each adjustment.

| Line No. | Name of Company or Public Authority<br>(Footnote Affiliations)<br>(a) | Statistical Classification<br>(b) | FERC Rate Schedule or Tariff Number<br>(c) | Average Monthly Billing Demand (MW)<br>(d) | Actual Demand (MW)                |                                  |
|----------|-----------------------------------------------------------------------|-----------------------------------|--------------------------------------------|--------------------------------------------|-----------------------------------|----------------------------------|
|          |                                                                       |                                   |                                            |                                            | Average Monthly NCP Demand<br>(e) | Average Monthly CP Demand<br>(f) |
| 1        | Windridge                                                             | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 2        | Windvest                                                              | OS                                |                                            | N/A                                        | N/A                               | N/A                              |
| 3        | Wisconsin Public Service                                              | OS                                | 2                                          | N/A                                        | N/A                               | N/A                              |
| 4        | Wisconsin Public Service                                              | AD                                |                                            | N/A                                        | N/A                               | N/A                              |
| 5        | Woodstock Hills, LLC                                                  | OS                                | IPP                                        | N/A                                        | N/A                               | N/A                              |
| 6        | Woodstock Hills, LLC                                                  | AD                                | IPP                                        | N/A                                        | N/A                               | N/A                              |
| 7        |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 8        |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 9        |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 10       |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 11       |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 12       |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 13       |                                                                       |                                   |                                            |                                            |                                   |                                  |
| 14       |                                                                       |                                   |                                            |                                            |                                   |                                  |
| Total    |                                                                       |                                   |                                            |                                            |                                   |                                  |

|                                                                 |                                                                                                                       |                            |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date<br>(Mo, L, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------|

**PURCHASED POWER (Account 555) (Continued)**  
(Including power exchanges)

AD - for out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. In column (c), identify the FERC Rate Schedule Number or Tariff, or, for non-FERC jurisdictional sellers, include an appropriate designation for the contract. On separate lines, list all FERC rate schedules, tariffs or contract designations under which service, as identified in column (b), is provided.
5. For requirements RQ purchases and any type of service involving demand charges imposed on a monthly (or longer) basis, enter the monthly average billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP) demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
6. Report in column (g) the megawatthours shown on bills rendered to the respondent. Report in columns (h) and (i) the megawatthours of power exchanges received and delivered, used as the basis for settlement. Do not report net exchange.
7. Report demand charges in column (j), energy charges in column (k), and the total of any other types of charges, including out-of-period adjustments, in column (l). Explain in a footnote all components of the amount shown in column (l). Report in column (m) the total charge shown on bills received as settlement by the respondent. For power exchanges, report in column (m) the settlement amount for the net receipt of energy. If more energy was delivered than received, enter a negative amount. If the settlement amount (l) include credits or charges other than incremental generation expenses, or (2) excludes certain credits or charges covered by the agreement, provide an explanatory footnote.
8. The data in column (g) through (m) must be totalled on the last line of the schedule. The total amount in column (g) must be reported as Purchases on Page 401, line 10. The total amount in column (h) must be reported as Exchange Received on Page 401, line 12. The total amount in column (i) must be reported as Exchange Delivered on Page 401, line 13.
9. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Purchased<br>(g) | POWER EXCHANGES                   |                                    | COST/SETTLEMENT OF POWER      |                               |                              |                                            | Line<br>No. |
|------------------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------|------------------------------|--------------------------------------------|-------------|
|                                    | MegaWatt Hours<br>Received<br>(h) | MegaWatt Hours<br>Delivered<br>(i) | Demand Charges<br>(\$)<br>(j) | Energy Charges<br>(\$)<br>(k) | Other Charges<br>(\$)<br>(l) | Total (j+k+l)<br>of Settlement (\$)<br>(m) |             |
| 5,098                              |                                   |                                    |                               | 173,340                       |                              | 173,340                                    | 1           |
| 2,970                              |                                   |                                    |                               | 98,028                        |                              | 98,028                                     | 2           |
|                                    |                                   |                                    | 516,300                       |                               |                              | 516,300                                    | 3           |
|                                    |                                   |                                    | 12,500                        |                               |                              | 12,500                                     | 4           |
| 23,649                             |                                   |                                    |                               | 1,135,219                     |                              | 1,135,219                                  | 5           |
|                                    |                                   |                                    |                               | 500                           |                              | 500                                        | 6           |
|                                    |                                   |                                    |                               |                               |                              |                                            | 7           |
|                                    |                                   |                                    |                               |                               |                              |                                            | 8           |
|                                    |                                   |                                    |                               |                               |                              |                                            | 9           |
|                                    |                                   |                                    |                               |                               |                              |                                            | 10          |
|                                    |                                   |                                    |                               |                               |                              |                                            | 11          |
|                                    |                                   |                                    |                               |                               |                              |                                            | 12          |
|                                    |                                   |                                    |                               |                               |                              |                                            | 13          |
|                                    |                                   |                                    |                               |                               |                              |                                            | 14          |
| 19,159,766                         |                                   |                                    | 136,038,017                   | 905,891,131                   | 21,196,420                   | 1,063,125,568                              |             |

## **7610.0600 E – Current Minnesota Electric Rate Schedules**

Following are Xcel Energy's electric rate schedules in effect between June 1, 2006 and June 1, 2007, and monthly power cost adjustments for the same period.



Northern States Power Company A Minnesota Corporation & Wholly Owned Subsidiary of Xcel Energy Inc.

## Retail Fuel Clause Adjustment (FCA) - Minnesota

June 2006 - June 2007

(\$/kWh)

| Billing Month  | All Customers |
|----------------|---------------|
| June 2006      | \$ (0.00189)  |
| July 2006      | \$ 0.00487    |
| August 2006    | \$ 0.00909    |
| September 2006 | \$ 0.01214    |
| October 2006   | \$ 0.00092    |
| November 2006  | \$ (0.00364)  |
| December 2006  | \$ 0.00445    |
| January 2007   | \$ 0.00687    |

| Billing Month | Residential | C&I Non-Demand | Non-TOD    | TOD        |            | Outdoor Lighting |
|---------------|-------------|----------------|------------|------------|------------|------------------|
|               |             |                |            | On-Peak    | Off-Peak   |                  |
| February 2007 | \$ 0.02606  | \$ 0.02663     | \$ 0.02551 | \$ 0.03261 | \$ 0.01951 | \$ 0.01830       |
| March 2007    | \$ 0.02536  | \$ 0.02595     | \$ 0.02480 | \$ 0.03212 | \$ 0.01860 | \$ 0.01736       |
| April 2007    | \$ 0.03141  | \$ 0.03214     | \$ 0.03072 | \$ 0.03972 | \$ 0.02311 | \$ 0.02158       |
| May 2007      | \$ 0.02296  | \$ 0.02349     | \$ 0.02245 | \$ 0.02913 | \$ 0.01680 | \$ 0.01566       |
| June 2007     | \$ 0.03287  | \$ 0.03362     | \$ 0.03215 | \$ 0.04148 | \$ 0.02425 | \$ 0.02266       |

### Note:

Pursuant to Minnesota Public Utilities Commission ("MPUC") authorization of the final compliance tariffs in Company's 2006 electric rate proceeding (Docket No. E002/GR-05-1428) to implement new rates beginning February 1, 2007, a new class fuel clause mechanism replaced the previous single factor approach. While the FCA continue be based on Xcel Energy's forecast of system energy costs and sales with "true-up" for the month, two new changes were implemented:

- (1) Fuel costs are unbundled from the energy charges or "Base Rates".
- (2) The monthly fuel cost factors are differentiated by 6 customer class categories.

NORTHERN STATES POWER COMPANY d/b/a XCEL ENERGY

ELECTRIC RATE BOOK

SCHEDULE OF  
RATES, CHARGES, RULES, AND REGULATIONS  
for  
ELECTRIC SERVICE  
in the  
STATE OF MINNESOTA

---

Filed with the Minnesota Public Utilities Commission

as MPUC No. 2  
Effective February 1, 2007

---

General Office  
414 Nicollet Mall  
Minneapolis, Minnesota 55401

---

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

**RATE SCHEDULES  
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

**RATE SCHEDULES  
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Original Sheet No. TOC-2

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RESIDENTIAL SERVICE  
RATE CODE A01

Section No. 5  
12th Revised Sheet No. 1

**AVAILABILITY**

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

**RATE**

|                           | <u>Standard</u> | <u>Electric Space Heating</u> |
|---------------------------|-----------------|-------------------------------|
| Customer Charge per Month | \$4.59          | \$6.09                        |
| Energy Charge per kWh     |                 |                               |
| June - September          | \$0.082744      | \$0.082744                    |
| Other Months              | \$0.072744      | \$0.061104                    |

R  
R

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000502 / kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-1.1)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RESIDENTIAL SERVICE**  
**RATE CODE A00, A01, A03**

Section No. 5  
13th Revised Sheet No. 1

#### AVAILABILITY

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

#### DETERMINATION OF CUSTOMER BILLS

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

#### RATE

|                                                 | <u>Standard</u> | <u>Electric Space Heating</u> |
|-------------------------------------------------|-----------------|-------------------------------|
| Customer Charge per Month – Water Heating (A00) | \$0.00          | N/A                           |
| – Overhead (A01)                                | \$6.00          | \$8.00                        |
| – Underground (A03)                             | \$8.00          | \$10.00                       |
| Energy Charge per kWh                           |                 |                               |
| June - September                                | \$0.067550      | \$0.067550                    |
| Other Months                                    | \$0.058070      | \$0.046070                    |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

#### ENVIRONMENTAL IMPROVEMENT RIDER

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

#### MONTHLY MINIMUM CHARGE

Customer Charge.

#### SURCHARGE

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-1.1)

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President and CEO of Northern States Power Company

Docket No. E002/ GR-05-1428

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RESIDENTIAL SERVICE**  
**RATE CODE A00, A01, A03**

Section No. 5  
14th Revised Sheet No. 1

**AVAILABILITY**

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                                 | <u>Standard</u> | <u>Electric Space Heating</u> |
|-------------------------------------------------|-----------------|-------------------------------|
| Customer Charge per Month – Water Heating (A00) | \$0.00          | N/A                           |
| – Overhead (A01)                                | \$6.00          | \$8.00                        |
| – Underground (A03)                             | \$8.00          | \$10.00                       |
| Energy Charge per kWh                           |                 |                               |
| June - September                                | \$0.067550      | \$0.067550                    |
| Other Months                                    | \$0.058070      | \$0.046070                    |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-1.1)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
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RESIDENTIAL SERVICE (Continued)  
RATE CODE A01

Section No. 5  
1st Revised Sheet No. 1.1

---

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Underground Service Rider and in Rules for Application of Residential Rates.

---

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

---

**RESIDENTIAL SERVICE (Continued)**  
**RATE CODE A01**

Section No. 5  
2nd Revised Sheet No. 1.1

---

The following are terms and conditions for service under this tariff.

N

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in in Rules for Application of Residential Rates.

---

Date Filed: 11-02-05

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President and CEO of Northern States Power Company

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RESIDENTIAL TIME OF DAY SERVICE  
RATE CODE A02

Section No. 5  
12th Revised Sheet No. 2

#### AVAILABILITY

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

#### RATE

|                                       | <u>Standard</u> | <u>Electric Space Heating</u> |   |
|---------------------------------------|-----------------|-------------------------------|---|
| Customer Charge per Month             | \$6.59          | \$8.09                        |   |
| On Peak Period Energy Charge per kWh  |                 |                               |   |
| June - September                      | \$0.151319      | \$0.151319                    | R |
| Other Months                          | \$0.124257      | \$0.097168                    | R |
| Off Peak Period Energy Charge per kWh | \$0.040506      | \$0.040506                    | R |

#### INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

#### PROPERTY TAX ADJUSTMENT

The above energy charge includes a \$0.000502 / kWh reduction, to reflect a property tax change.

#### MONTHLY MINIMUM CHARGE

Customer Charge.

#### SURCHARGE

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

#### LATE PAYMENT CHARGE

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-3)

|                           |                                            |                          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RESIDENTIAL TIME OF DAY SERVICE**  
**RATE CODE A02, A04**

Section No. 5  
13th Revised Sheet No. 2

**AVAILABILITY**

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

N  
N  
N  
N  
N  
N

**RATE**

|                                       | <u>Standard</u> | <u>Electric Space Heating</u> |    |
|---------------------------------------|-----------------|-------------------------------|----|
| Customer Charge per Month             |                 |                               |    |
| Overhead (A02)                        | \$8.00          | \$10.00                       | TR |
| Underground (A04)                     | \$10.00         | \$12.00                       | TR |
| On Peak Period Energy Charge per kWh  |                 |                               |    |
| June - September                      | \$0.150180      | \$0.150180                    | R  |
| Other Months                          | \$0.119850      | \$0.092590                    | R  |
| Off Peak Period Energy Charge per kWh |                 |                               |    |
| June - September                      | \$0.016040      | \$0.016040                    | R  |
| Other Months                          | \$0.019560      | \$0.019560                    | R  |

R  
R  
R  
D  
N

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-3)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | G002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL TIME OF DAY SERVICE**  
**RATE CODE A02, A04**

Section No. 5  
14th Revised Sheet No. 2

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**AVAILABILITY**

Available to any residential customer for domestic purposes only in a single private residence and qualifying farm customers.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                       | <u>Standard</u> | <u>Electric Space Heating</u> |
|---------------------------------------|-----------------|-------------------------------|
| Customer Charge per Month             |                 |                               |
| Overhead (A02)                        | \$8.00          | \$10.00                       |
| Underground (A04)                     | \$10.00         | \$12.00                       |
| On Peak Period Energy Charge per kWh  |                 |                               |
| June - September                      | \$0.150180      | \$0.150180                    |
| Other Months                          | \$0.119850      | \$0.092590                    |
| Off Peak Period Energy Charge per kWh |                 |                               |
| June - September                      | \$0.016040      | \$0.016040                    |
| Other Months                          | \$0.019560      | \$0.019560                    |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-3)

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|                          |                                                    |                          |
|--------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 08-01-06     | By: Cynthia L. Leshner                             | Effective Date: 05-01-07 |
|                          | President and CEO of Northern States Power Company |                          |
| Docket No. G002M-06-1505 |                                                    | Order Date: 03-29-07     |

RESIDENTIAL TIME OF DAY SERVICE (Continued)  
RATE CODE A02

Section No. 5  
1st Revised Sheet No. 3

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**DEFINITION OF PEAK PERIODS**

The on peak hours shall be a 12 hour block of continuous hours as selected by customer from options listed below. On peak hours shall begin at the same time for each of the on peak days, which are Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**CHOICE OF PEAK PERIODS**

Customer may choose one of three optional peak periods and must maintain the choice for a minimum of one year. The three on peak periods have the following beginning and ending hours:

| <u>Option</u> | <u>Beginning Hour</u> | <u>Ending Hour</u> | <u>Maximum Customer Limitation</u> |
|---------------|-----------------------|--------------------|------------------------------------|
| 1             | 8:00 a.m.             | 8:00 p.m.          | 500                                |
| 2             | 9:00 a.m.             | 9:00 p.m.          | No Limit                           |
| 3             | 10:00 a.m.            | 10:00 p.m.         | 500                                |

Off peak hours are times not specified as on peak hours.

One year after initial choice of peak period, customer may change peak period selection. Such change is allowed only once per year and is subject to the Service Processing Charge, as specified in the General Rules and Regulations, Section 1, GENERAL SERVICE RULES.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$20.00 for removal of time of day metering equipment.

(Continued on Sheet No. 5-4)

|                           |                                                                  |                          |
|---------------------------|------------------------------------------------------------------|--------------------------|
| Date Filed: 11-02-05      | By: Kent T. Larson<br>Vice President of Jurisdictional Relations | Effective Date: 01-01-06 |
| Docket No. E002/GR05-1428 |                                                                  | Order Date: 12-30-05     |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
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RESIDENTIAL TIME OF DAY SERVICE (Continued)  
RATE CODE A02, A04

Section No. 5  
2nd Revised Sheet No. 3

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**DEFINITION OF PEAK PERIODS**

The on peak hours shall be a 12 hour block of continuous hours as selected by customer from options listed below. On peak hours shall begin at the same time for each of the on peak days, which are Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$20.00 for removal of time of day metering equipment.

(Continued on Sheet No. 5-4)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**RESIDENTIAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A02, A04**

Section No. 5  
3rd Revised Sheet No. 3

---

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

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The following are terms and conditions for service under this tariff.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

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**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

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**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. On peak hours shall begin at the same time for each of the on peak days, which are Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

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**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$20.00 for removal of time of day metering equipment.

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(Continued on Sheet No. 5-4)

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By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/ GR-05-1428

Order Date: 09-01-06



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RESIDENTIAL TIME OF DAY SERVICE (Continued)  
RATE CODE A02

Section No. 5  
1st Revised Sheet No. 4

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TERMS AND CONDITIONS OF SERVICE

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months, except as provided under Optional Trial Service. While served under this schedule, the Residential Service rate is not available.
2. This schedule is also subject to provisions contained in Rules for Application of Residential Rates.
3. Time of Day Metering Charge per Month Option (Closed): For any customer who prior to November 1, 1988, elected to pay a non-refundable payment of \$310.00 in lieu of the time of day metering charge, the monthly customer charge is reduced by \$2.00.

C

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Date Filed: 09-11-00

By: Kent T. Larson  
State Vice President, Minnesota

Effective Date: 01-01-01

Docket No. E002/M-00-1213

Order Date: 11-27-00



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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A02, A04**

Section No. 5  
1st Revised Sheet No. 4

---

**TERMS AND CONDITIONS OF SERVICE**

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months, except as provided under Optional Trial Service. While served under this schedule, the Residential Service rate is not available.
2. This schedule is also subject to provisions contained in Rules for Application of Residential Rates.
3. Time of Day Metering Charge per Month Option (Closed): For any customer who prior to November 1, 1988, elected to pay a non-refundable payment of \$310.00 in lieu of the time of day metering charge, the monthly customer charge is reduced by \$2.00.

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

RESIDENTIAL SERVICE - UNDERGROUND  
RATE CODE A03

Section No. 5  
12th Revised Sheet No. 5

AVAILABILITY

Available to any residential customer for domestic purposes only in a single private residence where service is provided through underground facilities.

RATE

|                           | <u>Standard</u> | <u>Electric Space Heating</u> |
|---------------------------|-----------------|-------------------------------|
| Customer Charge per Month | \$6.59          | \$8.09                        |

Energy Charge per kWh

|                  |            |            |   |
|------------------|------------|------------|---|
| June - September | \$0.082744 | \$0.082744 | R |
| Other Months     | \$0.072744 | \$0.061104 | R |

INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

PROPERTY TAX ADJUSTMENT

The above energy charge includes a \$0.000502 / kWh reduction, to reflect a property tax change.

MONTHLY MINIMUM CHARGE

Customer Charge.

SURCHARGE

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-5.1)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL SERVICE - UNDERGROUND  
RATE CODE A03**

Section No. 5  
13th Revised Sheet No. 5

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**CANCELED**

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RESIDENTIAL SERVICE – UNDERGROUND  
(Continued)  
RATE CODE A03

Section No. 5  
1st Revised Sheet No. 5.1

---

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Residential Rates.

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Date Filed: 11-02-05

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Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL SERVICE – UNDERGROUND**  
**(Continued)**  
**RATE CODE A03**

Section No. 5  
2nd Revised Sheet No. 5.1

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**CANCELED**

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|             |                 |                                                    |                 |          |
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| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
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| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

RESIDENTIAL TIME OF DAY SERVICE - UNDERGROUND  
RATE CODE A04

Section No. 5  
12th Revised Sheet No. 6

**AVAILABILITY**

Available to any residential customer for domestic purposes only in a single private residence where service is provided through underground facilities.

**RATE**

|                                       | <u>Standard</u> | <u>Electric Space Heating</u> |   |
|---------------------------------------|-----------------|-------------------------------|---|
| Customer Charge per Month             | \$8.59          | \$10.09                       |   |
| On Peak Period Energy Charge per kWh  |                 |                               |   |
| June - September                      | \$0.151319      | \$0.151319                    | R |
| Other Months                          | \$0.124257      | \$0.097168                    | R |
| Off Peak Period Energy Charge per kWh | \$0.040506      | \$0.040506                    | R |

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000502 / kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-7)

|             |                 |                                            |                 |          |
|-------------|-----------------|--------------------------------------------|-----------------|----------|
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL TIME OF DAY SERVICE - UNDERGROUND  
RATE CODE A04**

Section No. 5  
13th Revised Sheet No. 6

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**CANCELED**

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|             |                 |                                                    |                 |          |
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| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
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RESIDENTIAL TIME OF DAY SERVICE -  
UNDERGROUND (Continued)  
RATE CODE A04

Section No. 5  
1st Revised Sheet No. 7

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**LOW INCOME ENERGY DISCOUNT**

Energy discount is available to qualified low income customers under this schedule subject to the provisions contained in the Low Income Energy Discount Rider.

**DEFINITION OF PEAK PERIODS**

The on peak hours shall be a 12 hour block of continuous hours as selected by customer from options listed below. On peak hours shall begin at the same time for each of the on peak days, which are Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**CHOICE OF PEAK PERIODS**

Customer may choose one of three optional peak periods and must maintain the choice for a minimum of one year. The three on peak periods have the following beginning and ending hours:

| <u>Option</u> | <u>Beginning Hour</u> | <u>Ending Hour</u> | <u>Maximum Customer Limitation</u> |
|---------------|-----------------------|--------------------|------------------------------------|
| 1             | 8:00 a.m.             | 8:00 p.m.          | 500                                |
| 2             | 9:00 a.m.             | 9:00 p.m.          | No Limit                           |
| 3             | 10:00 a.m.            | 10:00 p.m.         | 500                                |

Off peak hours are times not specified as on peak hours.

One year after initial choice of peak period, customer may change peak period selection. Such change is allowed only once per year and is subject to the Service Processing Charge, as specified in the General Rules and Regulations, Section 1, GENERAL SERVICE RULES.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$20.00 for removal of time of day metering equipment.

(Continued on Sheet No. 5-8)

|             |                |                                            |                 |          |
|-------------|----------------|--------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05       | By: Kent T. Larson                         | Effective Date: | 01-01-06 |
|             |                | Vice President of Jurisdictional Relations |                 |          |
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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL TIME OF DAY SERVICE - UNDERGROUND**  
**(Continued)**  
**RATE CODE A04**

Section No. 5  
2nd Revised Sheet No. 7

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**CANCELED**

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Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RESIDENTIAL TIME OF DAY SERVICE -  
UNDERGROUND (Continued)  
RATE CODE A04

---

Section No. 5  
1st Revised Sheet No. 8

TERMS AND CONDITIONS OF SERVICE

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months, except as provided under Optional Trial Service. While served under this schedule, the Residential Service - Underground rate is not available.
2. This schedule is also subject to provisions contained in Rules for Application of Residential Rates.
3. Time of Day Metering Charge per Month Option (Closed): For any customer who prior to November 1, 1988, elected to pay a non-refundable payment of \$310.00 in lieu of the time of day metering charge, the monthly customer charge is reduced by \$2.00.

C

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Date Filed: 09-11-00

By: Kent T. Larson  
State Vice President, Minnesota

Effective Date: 01-01-01

Docket No. E002/M-00-1213

Order Date: 11-27-00

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RESIDENTIAL TIME OF DAY SERVICE -  
UNDERGROUND (Continued)  
RATE CODE A04**

Section No. 5  
2nd Revised Sheet No. 8

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**CANCELED**

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ENERGY CONTROLLED SERVICE  
(NON-DEMAND METERED)  
RATE CODE A05

Section No. 5  
11th Revised Sheet No. 9

#### AVAILABILITY

Available to residential and commercial customers with permanently connected interruptible loads of up to 50 kW which would be under Company control. The types of loads served would include dual fuel space heating, water heating, and other loads subject to Company approval.

#### RATE

Customer Charge \$3.29

#### Energy Charge per kWh

June - September

Standard \$0.042972

Optional - Residential \$0.082744

Optional - Commercial \$0.082604

Other Months \$0.042972

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#### INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
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N

#### OPTIONAL ENERGY CHARGE

This option is available to customers with heat pump installations for non-interruptible service during June through September billing months.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

#### PROPERTY TAX ADJUSTMENT

The above energy charge includes a \$0.000512 / kWh reduction, to reflect a property tax change.

#### MONTHLY MINIMUM CHARGE

Customer Charge.

(Continued on Sheet No. 5-10)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

|                                                                 |                                                                                                                       |                                       |                                         |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|
| Name of Respondent<br>Northern States Power Company (Minnesota) | This Report Is:<br>(1) <input checked="" type="checkbox"/> An Original<br>(2) <input type="checkbox"/> A Resubmission | Date of Report<br>(Mo, Da, Yr)<br>/ / | Year/Period of Report<br>End of 2006/Q4 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|

SALES FOR RESALE (Account 447) (Continued)

OS - for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.

AD - for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.

4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal - RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)

5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.

6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)

demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.

7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.

8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.

9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal - RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal - Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.

10. Footnote entries as required and provide explanations following all required data.

| MegaWatt Hours<br>Sold<br>(g) | REVENUE                       |                               |                              | Total (\$) (h+i+j)<br>(k) | Line No. |
|-------------------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|----------|
|                               | Demand Charges<br>(\$)<br>(h) | Energy Charges<br>(\$)<br>(i) | Other Charges<br>(\$)<br>(j) |                           |          |
| 4,000                         |                               | 288,000                       |                              | 288,000                   | 1        |
| 512,146                       |                               | 19,498,197                    |                              | 19,498,197                | 2        |
| 30,013                        |                               | 1,649,175                     |                              | 1,649,175                 | 3        |
| -6                            |                               | 180                           |                              | 180                       | 4        |
| 3,233                         |                               | 54,652                        |                              | 54,652                    | 5        |
| 321                           |                               | 6,963                         |                              | 6,963                     | 6        |
| -4,529                        |                               | -1,710,974                    |                              | -1,710,974                | 7        |
| 4,090,021                     |                               | 193,775,908                   |                              | 193,775,908               | 8        |
| 2,422                         |                               | 99,305                        |                              | 99,305                    | 9        |
| 12,320                        |                               | 583,680                       |                              | 583,680                   | 10       |
| 7,200                         |                               | 423,204                       |                              | 423,204                   | 11       |
| 16,083                        |                               | 996,817                       |                              | 996,817                   | 12       |
| 4,800                         |                               | 193,680                       |                              | 193,680                   | 13       |
| 514                           |                               | 37,126                        |                              | 37,126                    | 14       |
|                               |                               |                               |                              |                           |          |
|                               |                               |                               |                              |                           |          |
| 7,384,511                     | 6,920,561                     | 271,823,397                   | -65,599                      | 278,678,359               |          |
| 7,925,435                     | 954,575                       | 342,020,206                   | 0                            | 342,974,781               |          |
| 15,309,946                    | 7,875,136                     | 613,843,603                   | -65,599                      | 621,653,140               |          |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**ENERGY CONTROLLED SERVICE  
(NON-DEMAND METERED)  
RATE CODE A05**

Section No. 5  
12th Revised Sheet No. 9

**AVAILABILITY**

Available to residential and commercial customers with permanently connected interruptible loads of up to 50 kW that would be under Company control. The types of loads served would include dual fuel space heating, water heating, and other loads subject to Company approval.

T

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

N

N

**RATE**

|                       | Residential | Commercial & Industrial |
|-----------------------|-------------|-------------------------|
| Customer Charge       | \$4.80      | \$4.80                  |
| Energy Charge per kWh | \$0.020540  | \$0.020080              |
| Optional              |             |                         |
| June - September      | \$0.067550  | \$0.067050              |
| Other Months          | \$0.021810  | \$0.021390              |

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**OPTIONAL ENERGY CHARGE**

This option is available to customers with heat pump installations for non-interruptible service during June through September billing months.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-10)

Date Filed: 11-02-05 By: Cynthia L. Leshner Effective Date: 02-01-07  
President and CEO of Northern States Power Company  
Docket No. E002/GR-05-1428 Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**ENERGY CONTROLLED SERVICE  
(NON-DEMAND METERED)  
RATE CODE A05**

Section No. 5  
13th Revised Sheet No. 9

**AVAILABILITY**

Available to residential and commercial customers with permanently connected interruptible loads of up to 50 kW that would be under Company control. The types of loads served would include dual fuel space heating, water heating, and other loads subject to Company approval.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                       | Residential | Commercial & Industrial |
|-----------------------|-------------|-------------------------|
| Customer Charge       | \$4.80      | \$4.80                  |
| Energy Charge per kWh | \$0.020540  | \$0.020080              |
| Optional              |             |                         |
| June - September      | \$0.067550  | \$0.067050              |
| Other Months          | \$0.021810  | \$0.021390              |

**OPTIONAL ENERGY CHARGE**

This option is available to customers with heat pump installations for non-interruptible service during June through September billing months.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-10)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

ENERGY CONTROLLED SERVICE  
(NON-DEMAND METERED) (Continued)  
RATE CODE A05

Section No. 5  
1st Revised Sheet No. 10

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. The controllable load shall be permanently wired, separately served and metered, and at no time connected to facilities serving customer's firm load.
2. The duration and frequency of interruptions shall be at the discretion of Company. Interruption will normally occur at such times:
  - a. When Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production cost,
  - b. When Company expects to establish an annual system peak demand, or
  - c. At such times when, in Company's opinion, the reliability of the system is endangered.
3. Customer selecting Energy Controlled Service (Non-Demand Metered) must have a Company approved electric space heating system and must remain on this service for a minimum term of one year.
4. Customer selecting Energy Controlled Service (Non-Demand Metered) must be prepared for interruptions that will last longer than 12 hours per occurrence. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
5. Electricity must be the primary source of energy for dual fuel space heating installations. Customer must have available alternative energy sources capable of supplying up to 30% of the annual heating needs during any heating season.
6. Customer's water heating system served under this rate must be designed and sized to be capable of providing customer's hot water needs for the full duration of the potential interruption periods.
7. Customer must furnish and install an NSP approved electric meter socket to accept Energy Controlled Service (Non-Demand Metered). Company reserves the right to inspect and approve the installation.
8. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditures for facilities necessary to serve this load which would not otherwise be required to serve customer's load.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR05-1428

Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (NON-DEMAND METERED)**  
(Continued)  
RATE CODE A05

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Section No. 5  
2nd Revised Sheet No. 10

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. The controllable load shall be permanently wired, separately served and metered, and at no time connected to facilities serving customer's firm load.
2. The duration and frequency of interruptions shall be at the discretion of Company. Interruption will normally occur at such times:
  - a. When Company is required to use generation equipment or to purchase power that results in production costs in excess of \$60 per MWh,
  - b. When Company expects to establish an annual system peak demand, or
  - c. At such times when, in Company's opinion, the reliability of the system is endangered.
3. Customer selecting Energy Controlled Service (Non-Demand Metered) must have a Company approved electric space heating system and must remain on this service for a minimum term of one year.
4. Customer selecting Energy Controlled Service (Non-Demand Metered) must be prepared for interruptions that will last longer than 12 hours per occurrence. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
5. Electricity must be the primary source of energy for dual fuel space heating installations. Customer must have available alternative energy sources capable of supplying up to 30% of the annual heating needs during any heating season.
6. Customer's water heating system served under this rate must be designed and sized to be capable of providing customer's hot water needs for the full duration of the potential interruption periods.
7. Customer must furnish and install an NSP approved electric meter socket to accept Energy Controlled Service (Non-Demand Metered). Company reserves the right to inspect and approve the installation.
8. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditures for facilities necessary to serve this load which would not otherwise be required to serve customer's load.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

LIMITED OFF PEAK SERVICE  
RATE CODE A06

Section No. 5  
11th Revised Sheet No. 11

**AVAILABILITY**

Available to any customers for controlled loads which will be energized only for the time period between 10:00 p.m. to 6:30 a.m. daily.

**RATE**

|                           | <u>Residential</u> | <u>Commercial &amp; Industrial</u> |   |
|---------------------------|--------------------|------------------------------------|---|
| Customer Charge per Month |                    |                                    |   |
| Secondary Voltage         |                    |                                    |   |
| Single Phase              | \$3.29             | \$8.39                             |   |
| Three Phase               | --                 | \$12.39                            |   |
| Primary Voltage           | --                 | \$60.39                            |   |
| Transmission Transformed  | --                 | \$60.39                            |   |
| Transmission              | --                 | \$60.39                            |   |
| Energy Charge per kWh     |                    |                                    |   |
| Secondary Voltage         | \$0.035372         | \$0.032231                         | R |
| Primary Voltage           | --                 | \$0.031731                         | R |
| Transmission Transformed  | --                 | \$0.031331                         | R |
| Transmission              | --                 | \$0.030931                         | R |

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000512 / kWh reduction for Residential customers and a \$0.000456 / kWh reduction for Commercial customers, to reflect a property tax change.

(Continued on Sheet No. 5-11.1)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**LIMITED OFF PEAK SERVICE**  
**RATE CODE A06**

Section No. 5  
13th Revised Sheet No. 11

#### AVAILABILITY

Available to any customers for controlled loads that will be energized only for the time period between 10:00 p.m. to 6:30 a.m. daily, except beginning in 2007 the hours will be 11:00 p.m. to 7:30 a.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November.

#### DETERMINATION OF CUSTOMER BILLS

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

#### RATE

|                           | <u>Residential</u> | <u>Commercial &amp; Industrial</u> |
|---------------------------|--------------------|------------------------------------|
| Customer Charge per Month |                    |                                    |
| Secondary Voltage         |                    |                                    |
| Single Phase              | \$4.80             | \$9.50                             |
| Three Phase               | --                 | \$13.00                            |
| Primary Voltage           | --                 | \$60.00                            |
| Transmission Transformed  | --                 | \$60.00                            |
| Transmission              | --                 | \$60.00                            |
| Energy Charge per kWh     |                    |                                    |
| Secondary Voltage         | \$0.013340         | \$0.009880                         |
| Primary Voltage           | --                 | \$0.009180                         |
| Transmission Transformed  | --                 | \$0.008780                         |
| Transmission              | --                 | \$0.008280                         |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

#### ENVIRONMENTAL IMPROVEMENT RIDER

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

(Continued on Sheet No. 5-12)

Date Filed: 11-02-05 By: Cynthia L. Leshner Effective Date: 02-01-07  
President and CEO of Northern States Power Company  
Docket No. E002/GR-05-1428 Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**LIMITED OFF PEAK SERVICE**  
**RATE CODE A06**

Section No. 5  
13th Revised Sheet No. 11

#### AVAILABILITY

Available to any customers for controlled loads that will be energized only for the time period between 10:00 p.m. to 6:30 a.m. daily, except beginning in 2007 the hours will be 11:00 p.m. to 7:30 a.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November.

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#### DETERMINATION OF CUSTOMER BILLS

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

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#### RATE

|                           | <u>Residential</u> | <u>Commercial &amp; Industrial</u> |
|---------------------------|--------------------|------------------------------------|
| Customer Charge per Month |                    |                                    |
| Secondary Voltage         |                    |                                    |
| Single Phase              | \$4.80             | \$9.50                             |
| Three Phase               | —                  | \$13.00                            |
| Primary Voltage           | —                  | \$60.00                            |
| Transmission Transformed  | —                  | \$60.00                            |
| Transmission              | —                  | \$60.00                            |
| Energy Charge per kWh     |                    |                                    |
| Secondary Voltage         | \$0.013340         | \$0.009880                         |
| Primary Voltage           | —                  | \$0.009180                         |
| Transmission Transformed  | —                  | \$0.008780                         |
| Transmission              | —                  | \$0.008280                         |

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In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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#### ENVIRONMENTAL IMPROVEMENT RIDER

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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(Continued on Sheet No. 5-12)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**LIMITED OFF PEAK SERVICE  
RATE CODE A06**

Section No. 5  
14th Revised Sheet No. 11

**AVAILABILITY**

Available to any customers for controlled loads that will be energized only for the time period between 10:00 p.m. to 6:30 a.m. daily, except beginning in 2007 the hours will be 11:00 p.m. to 7:30 a.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                           | <u>Residential</u> | <u>Commercial &amp; Industrial</u> |
|---------------------------|--------------------|------------------------------------|
| Customer Charge per Month |                    |                                    |
| Secondary Voltage         |                    |                                    |
| Single Phase              | \$4.80             | \$9.50                             |
| Three Phase               | —                  | \$13.00                            |
| Primary Voltage           | —                  | \$60.00                            |
| Transmission Transformed  | —                  | \$60.00                            |
| Transmission              | —                  | \$60.00                            |
| Energy Charge per kWh     |                    |                                    |
| Secondary Voltage         | \$0.013340         | \$0.009880                         |
| Primary Voltage           | —                  | \$0.009180                         |
| Transmission Transformed  | —                  | \$0.008780                         |
| Transmission              | —                  | \$0.008280                         |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

(Continued on Sheet No. 5-12)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**LIMITED OFF PEAK SERVICE (Continued)**  
**RATE CODE A06**

Section No. 5  
1st Revised Sheet No. 11.1

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**MONTHLY MINIMUM CHARGE**

For all customers, the minimum charge shall be the applicable commercial and industrial customer charge.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-12)

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Vice President of Jurisdictional Relations

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**LIMITED OFF PEAK SERVICE (Continued)**  
**RATE CODE A06**

Section No. 5  
2nd Revised Sheet No. 11.1

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**CANCELED**

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By: Cynthia L. Leshner

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President and CEO of Northern States Power Company

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LIMITED OFF PEAK SERVICE (Continued)  
RATE CODE A06

Section No. 5  
1st Revised Sheet No. 12

---

MONTHLY MINIMUM CHARGE

For all customers, the minimum charge shall be the applicable commercial and industrial customer charge.

SURCHARGE

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

TERMS AND CONDITIONS OF SERVICE

1. Limited Off Peak Service shall be separately served and metered and must at no time be connected to facilities serving customer's other loads.
2. Company will not be liable for any loss or damage caused by or resulting from any interruption of service.
3. Customer selecting Limited Off Peak Service must remain on this service for a minimum term of one year, unless customer transfers to another interruptible service rate.
4. Customer has the option of directly controlling own load or allowing Company load control. If customer chooses Company load control, customer must:
  - a. Provide a load-break switch or circuit breaker equipped with electronic trip and close circuits allowing for remote operation of customer's switch or circuit breaker by Company,
  - b. Wire the trip and close circuits into a connection point designated by Company to allow installation of remote control equipment by Company, and
  - c. Provide a continuous 120 volt AC power source at the connection point for operation of Company's remote control equipment.
5. A charge of \$0.20 per kWh shall be applied to non-authorized energy used outside of the energized time period specified in this tariff. If this energy use occurs during three or more billing months, the Company reserves the right to remove customer from Limited Off Peak Service.
6. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditures for facilities necessary to serve this load which would not otherwise be required to serve customer's load.

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**LIMITED OFF PEAK SERVICE (Continued)**  
**RATE CODE A06**

Section No. 5  
2nd Revised Sheet No. 12

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**MONTHLY MINIMUM CHARGE**

For all customers, the minimum charge shall be the applicable customer charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. Limited Off Peak Service shall be separately served and metered and must at no time be connected to facilities serving customer's other loads.
2. Company will not be liable for any loss or damage caused by or resulting from any interruption of service.
3. Customer selecting Limited Off Peak Service must remain on this service for a minimum term of one year, unless customer transfers to another interruptible service rate.
4. Customer has the option of directly controlling own load or allowing Company load control. If customer chooses Company load control, customer must:
  - a. Provide a load-break switch or circuit breaker equipped with electronic trip and close circuits allowing for remote operation of customer's switch or circuit breaker by Company,
  - b. Wire the trip and close circuits into a connection point designated by Company to allow installation of remote control equipment by Company, and
  - c. Provide a continuous 120 volt AC power source at the connection point for operation of Company's remote control equipment.
5. A charge of \$0.20 per kWh shall be applied to non-authorized energy used outside of the energized time period specified in this tariff. If this energy use occurs during three or more billing months, the Company reserves the right to remove customer from Limited Off Peak Service.
6. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditures for facilities necessary to serve this load which would not otherwise be required to serve customer's load.

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RULES FOR APPLICATION OF RESIDENTIAL RATES

Section No. 5

Original Sheet No. 13

Relocated from MPUC No. 1 Sheet No. 5-7

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1. The Residential Service, Residential Service - Underground, Residential Time of Day Service, and Residential Time of Day Service - Underground rates are the only rates available to residential customers for domestic purposes in a single private residence. Energy Controlled Service (Non-Demand Metered), Limited Off Peak Service, and Automatic Protective Lighting Service rate schedules are also available to qualifying residential customers.
2. Normal service under the Residential Service, Residential Service - Underground, Residential Time of Day Service, and Residential Time of Day Service - Underground rate schedules is single phase service rendered through one meter. Three phase service or service through more than one meter will be provided upon a one-time payment of an amount to reimburse Company for the additional investment. If customer is served through more than one meter, each meter will be separately billed.
3. Electric space heating charges are applicable only when customer's electric space heating equipment is used as customer's primary heating source.
4. The Residential Service - Underground and Residential Time of Day Service - Underground rate schedules will apply where the underground facilities are owned by Company, and Company has not been fully reimbursed for the added cost of such underground facilities.
5. Standby and Supplementary Service is available for any residential customer subject to the provisions in the General Rules and Regulations, Section 2.4. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.
6. A customer using electric service for domestic and non-domestic purposes jointly may combine such use through one meter on such rates as are available to general service customers.
7. The Residential Service and Residential Time of Day Service rate schedules are available to farm installations which were served on the separate Farm Service rate schedule prior to its cancellation on November 1, 1988. Residential Service and Residential Time of Day Service to these qualifying farm customers is limited to 120/240 volts single phase service rendered through one meter. Motors and other equipment which interfere with service to neighboring customers and all transformer type welding machines larger than 25 kilovolt-amperes are not permitted as part of this service.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RULES FOR APPLICATION OF RESIDENTIAL RATES**

Section No. 5  
Original Sheet No. 13

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1. The Residential Service, Residential Service - Underground, Residential Time of Day Service, and Residential Time of Day Service - Underground rates are the only rates available to residential customers for domestic purposes in a single private residence. Energy Controlled Service (Non-Demand Metered), Limited Off Peak Service, and Automatic Protective Lighting Service rate schedules are also available to qualifying residential customers.
2. Normal service under the Residential Service, Residential Service - Underground, Residential Time of Day Service, and Residential Time of Day Service - Underground rate schedules is single phase service rendered through one meter. Three phase service or service through more than one meter will be provided upon a one-time payment of an amount to reimburse Company for the additional investment. If customer is served through more than one meter, each meter will be separately billed.
3. Electric space heating charges are applicable only when customer's electric space heating equipment is used as customer's primary heating source.
4. The Residential Service - Underground and Residential Time of Day Service - Underground rate schedules will apply where the underground facilities are owned by Company, and Company has not been fully reimbursed for the added cost of such underground facilities.
5. Standby and Supplementary Service is available for any residential customer subject to the provisions in the General Rules and Regulations, Section 2.4. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.
6. A customer using electric service for domestic and non-domestic purposes jointly may combine such use through one meter on such rates as are available to general service customers.
7. The Residential Service and Residential Time of Day Service rate schedules are available to farm installations which were served on the separate Farm Service rate schedule prior to its cancellation on November 1, 1988. Residential Service and Residential Time of Day Service to these qualifying farm customers is limited to 120/240 volts single phase service rendered through one meter. Motors and other equipment which interfere with service to neighboring customers and all transformer type welding machines larger than 25 kilovolt-amperes are not permitted as part of this service.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**AUTOMATIC PROTECTIVE LIGHTING SERVICE**  
**RATE CODE A07**

Section No. 5  
10th Revised Sheet No. 14

**AVAILABILITY**

Available to all types of customers except for municipal street lighting purposes.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

N  
N  
N  
N  
N  
N

**RATE**

Designation of Lamp                      Monthly Rate Per Unit

Area Units

|                           |         |
|---------------------------|---------|
| 100W High Pressure Sodium | \$7.18  |
| 175W Mercury (1)          | \$6.74  |
| 250W High Pressure Sodium | \$11.81 |
| 400W Mercury (1)          | \$11.03 |

R  
R  
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R

Directional Units

|                           |         |
|---------------------------|---------|
| 250W High Pressure Sodium | \$13.17 |
| 400W High Pressure Sodium | \$17.14 |
| 1,000W Mercury (1)        | \$24.85 |

R  
D  
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R

(1) Available to existing installations only.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N  
  
D

**SERVICE INCLUDED IN RATE**

Company shall own, operate, and maintain the lighting unit including the fixture, lamp, ballast, photoelectric control, mounting brackets, and all necessary wiring. Company shall furnish all electric energy required for operation of the unit.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No. 5-15)

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By: Cynthia L. Leshner

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**AUTOMATIC PROTECTIVE LIGHTING SERVICE**  
(Continued)  
RATE CODE A07

Section No. 5  
2nd Revised Sheet No. 15

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERM OF AGREEMENT**

Agreement shall be for a term of three years. If not then terminated by at least 30 days' written notice by either party, the agreement shall continue until so terminated.

**TERMS AND CONDITIONS OF SERVICE**

1. Service available subject to the provisions for Automatic Protective Lighting Service of the General Rules and Regulations, Section 5.4.
2. The lamp shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half hour after sunset until one-half hour before sunrise, every night.
3. If illumination of a lamp is interrupted and said illumination is not resumed within 72 hours from the time Company receives notice thereof from customer, one-thirtieth of the monthly compensation for such unit shall be deducted for each night of non-illumination after such notice is received.
4. Company reserves the right to discontinue service if equipment is abused.
5. Company will convert mercury vapor lighting units to high pressure sodium upon failure of the mercury vapor ballast.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**AUTOMATIC PROTECTIVE LIGHTING SERVICE (Continued)**  
**RATE CODE A07**

Section No. 5  
3rd Revised Sheet No. 15

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

N

N

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

N

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERM OF AGREEMENT**

Agreement shall be for a term of three years. If not then terminated by at least 30 days' written notice by either party, the agreement shall continue until so terminated.

**TERMS AND CONDITIONS OF SERVICE**

1. Service available subject to the provisions for Automatic Protective Lighting Service of the General Rules and Regulations, Section 5.4.
2. The lamp shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half hour after sunset until one-half hour before sunrise, every night.
3. If illumination of a lamp is interrupted and said illumination is not resumed within 72 hours from the time Company receives notice thereof from customer, one-thirtieth of the monthly compensation for such unit shall be deducted for each night of non-illumination after such notice is received.
4. Company reserves the right to discontinue service if equipment is abused.
5. Company will convert mercury vapor lighting units to high pressure sodium upon failure of the mercury vapor ballast.

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**AUTOMATIC PROTECTIVE LIGHTING SERVICE (Continued)**  
**RATE CODE A07**

Section No. 5  
4th Revised Sheet No. 15

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERM OF AGREEMENT**

Agreement shall be for a term of three years. If not then terminated by at least 30 days' written notice by either party, the agreement shall continue until so terminated.

**TERMS AND CONDITIONS OF SERVICE**

1. Service available subject to the provisions for Automatic Protective Lighting Service of the General Rules and Regulations, Section 5.4.
2. The lamp shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half hour after sunset until one-half hour before sunrise, every night.
3. If illumination of a lamp is interrupted and said illumination is not resumed within 72 hours from the time Company receives notice thereof from customer, one-thirtieth of the monthly compensation for such unit shall be deducted for each night of non-illumination after such notice is received.
4. Company reserves the right to discontinue service if equipment is abused.
5. Company will convert mercury vapor lighting units to high pressure sodium upon failure of the mercury vapor ballast.

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
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|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL SERVICE**  
**RATE CODE A10**

Section No. 5  
12th Revised Sheet No. 21

**AVAILABILITY**

Available to any non-residential customer for single or three phase electric service.

**RATE**

Customer Charge per Month \$6.88

Energy Charge per kWh

June - September \$0.082686

Other Months \$0.072686

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000456 / kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-22)

Date Filed: 11-02-05

By: Kent T. Larson

Effective Date: 01-01-06

Vice President of Jurisdictional Relations

Docket No. E002/GR-05-1428

Order Date: 12-30-05

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL SERVICE**  
**RATE CODE A09, A10, A11, A13**

Section No. 5  
13th Revised Sheet No. 21

**AVAILABILITY**

Standard service (i.e., alternating current) is available to any non-residential customer for single or three phase electric service. Direct Current service is only available in Minneapolis and St. Paul to the extent now used.

T  
N

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

N  
N  
N  
N  
N  
N

**RATE**

|                                             |        |    |
|---------------------------------------------|--------|----|
| Customer Charge per Month – Unmetered (A09) | \$6.55 | TR |
| -- Metered (A10)                            | \$8.00 | TR |
| -- Water Heating (A11)                      | \$0.00 | TR |
| -- Direct Current (A13)                     | \$8.00 | TR |

**Energy Charge per kWh**

|                  |            |   |
|------------------|------------|---|
| June - September | \$0.067050 | R |
| Other Months     | \$0.057650 | R |

|                                     |        |    |
|-------------------------------------|--------|----|
| Demand Charge (Direct Current Only) | \$2.96 | TR |
| per Month per kW of Connected Load  |        | R  |

D

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

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(Continued on Sheet No. 5-22)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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|             |                 | President and CEO of Northern States Power Company |                 |          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL SERVICE**  
**RATE CODE A09, A10, A11, A13**

Section No. 5  
14th Revised Sheet No. 21

#### AVAILABILITY

Standard service (i.e., alternating current) is available to any non-residential customer for single or three phase electric service. Direct Current service is only available in Minneapolis and St. Paul to the extent now used.

#### DETERMINATION OF CUSTOMER BILLS

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

#### RATE

|                                             |        |
|---------------------------------------------|--------|
| Customer Charge per Month – Unmetered (A09) | \$6.55 |
| -- Metered (A10)                            | \$8.00 |
| -- Water Heating (A11)                      | \$0.00 |
| -- Direct Current (A13)                     | \$8.00 |

|                       |            |
|-----------------------|------------|
| Energy Charge per kWh |            |
| June - September      | \$0.067050 |
| Other Months          | \$0.057650 |

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| Demand Charge (Direct Current Only)<br>per Month per kW of Connected Load | \$2.96 |
|---------------------------------------------------------------------------|--------|

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

T

(Continued on Sheet No. 5-22)

|                           |                                                    |                          |
|---------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 08-01-06      | By: Cynthia L. Leshner                             | Effective Date: 05-01-07 |
|                           | President and CEO of Northern States Power Company |                          |
| Docket No. E002/M-06-1505 |                                                    | Order Date: 03-29-07     |

**SMALL GENERAL SERVICE (Continued)**  
**RATE CODE A10**

Section No. 5  
1st Revised Sheet No. 22

---

**TERMS AND CONDITIONS OF SERVICE**

Company shall install a demand meter for a customer when:

1. Customer's connected load is estimated to be 20 kW or greater,
2. Customer is served single phase and has a service entrance capacity greater than 200 amperes,
3. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes,
4. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or
5. Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small General Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the General Service schedule in the next billing month. A customer with a billing demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small General Service schedule.

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL SERVICE (Continued)**  
**RATE CODE A9, A10, A11, A13**

Section No. 5  
2nd Revised Sheet No. 22

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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N

**MONTHLY MINIMUM CHARGE**

Customer Charge, or Customer Charge plus Demand Charge if served at Direct Current.

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L

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

L  
L

The following are terms and conditions for service under this tariff.

N

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

L  
L  
L

**TERMS AND CONDITIONS OF SERVICE FOR ALTERNATING CURRENT CUSTOMERS**

C

Company shall install a demand meter for a customer when:

1. Customer's connected load is estimated to be 20 kW or greater,
2. Customer is served single phase and has a service entrance capacity greater than 200 amperes,
3. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes,
4. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or
5. Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small General Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the General Service schedule in the next billing month. A customer with a billing demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small General Service schedule.

**DETERMINATION OF CONNECTED LOAD FOR DIRECT CURRENT SERVICE**

The nameplate rating shall be the basis of determining the connected load and shall be assumed to be one kW for each hp of nameplate rating. In any case, where there is reasonable doubt as to correctness of manufacturer's rating or where insufficient or no rating exists, the Company may fix the rating by test. For billing purposes, the demand shall be rounded to the nearest 0.1 kW.

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By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

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**SMALL GENERAL TIME OF DAY SERVICE**  
**RATE CODE A12 (METERED) AND**  
**RATE CODE A18 (NON-METERED)**

Section No. 5  
12th Revised Sheet No. 23

**AVAILABILITY**

Available to any non-residential customer for single or three phase electric service supplied through one meter.

**RATE**

Customer Charge per Month \$8.88

| Energy Charge per kWh  | <u>Oct-May</u> | <u>Jun-Sep</u> |   |
|------------------------|----------------|----------------|---|
| On Peak Period Energy  | \$0.106540     | \$0.126533     | R |
| Off Peak Period Energy | \$0.038040     | \$0.038040     | R |
| Constant Hourly Energy | \$0.062015     | \$0.069012     | R |

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000456/ kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-24)

|                            |                                            |                          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**SMALL GENERAL TIME OF DAY SERVICE**  
**RATE CODE A12, A16, A18, A22**

Section No. 5  
13th Revised Sheet No. 23

**AVAILABILITY**

Available to any non-residential customer for single or three phase electric service supplied through one meter.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| Customer Charge per Month – Time Of Day Metered (A12) | \$10.00                  |
| – kWh Metered (A16)                                   | \$8.00                   |
| – Unmetered (A18)                                     | \$6.55                   |
| – Low Wattage (A22)                                   | (Please see page 5-24.1) |

|                                                     |                |                |
|-----------------------------------------------------|----------------|----------------|
| Energy Charge per kWh                               | <u>Oct-May</u> | <u>Jun-Sep</u> |
| On Peak Period (A12)                                | \$0.098710     | \$0.121970     |
| Off Peak Period (A12)                               | \$0.019140     | \$0.015540     |
| Constant Hourly (A16, A18, A22) (= 35% On, 65% Off) | \$0.046990     | \$0.052790     |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-24)

|                                                    |                        |                          |
|----------------------------------------------------|------------------------|--------------------------|
| Date Filed: 11-02-05                               | By: Cynthia L. Leshner | Effective Date: 02-01-07 |
| President and CEO of Northern States Power Company |                        |                          |
| Docket No. E002/GR-05-1428                         | Order Date: 09-01-06   |                          |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL TIME OF DAY SERVICE**  
**RATE CODE A12, A16, A18, A22**

Section No. 5  
14th Revised Sheet No. 23

**AVAILABILITY**

Available to any non-residential customer for single or three phase electric service supplied through one meter.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                                       |                          |
|-------------------------------------------------------|--------------------------|
| Customer Charge per Month – Time Of Day Metered (A12) | \$10.00                  |
| – kWh Metered (A16)                                   | \$8.00                   |
| – Unmetered (A18)                                     | \$6.55                   |
| – Low Wattage (A22)                                   | (Please see page 5-24.1) |

|                                                     |                |                |
|-----------------------------------------------------|----------------|----------------|
| Energy Charge per kWh                               | <u>Oct-May</u> | <u>Jun-Sep</u> |
| On Peak Period (A12)                                | \$0.098710     | \$0.121970     |
| Off Peak Period (A12)                               | \$0.019140     | \$0.015540     |
| Constant Hourly (A16, A18, A22) (= 35% On, 65% Off) | \$0.046990     | \$0.052790     |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

(Continued on Sheet No. 5-24)

|                           |                                                    |                          |
|---------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 08-01-06      | By: Cynthia L. Leshner                             | Effective Date: 05-01-07 |
|                           | President and CEO of Northern States Power Company |                          |
| Docket No. E002/M-06-1505 |                                                    | Order Date: 03-29-07     |

**SMALL GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A12 (METERED) AND**  
**RATE CODE A18 (NON-METERED)**

Section No. 5  
4th Revised Sheet No. 24

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**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$25.00 for removal of time of day metering equipment.

**TERMS AND CONDITIONS OF SERVICE**

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months. While served under this schedule, the Small General Service rate is unavailable.
2. Company shall install a demand meter for a customer when:
  - a. Customer's connected load is estimated to be 20 kW or greater,
  - b. Customer is served single phase and has a service entrance capacity greater than 200 amperes,
  - c. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes,
  - d. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or
  - e. Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small General Time of Day Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the General Time of Day Service schedule in the next billing month. A customer with a billing demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small General Time of Day Service schedule.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**SMALL GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A12, A16, A18, A22**

Section No. 5  
6th Revised Sheet No. 24

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$25.00 for removal of time of day metering equipment.

**TERMS AND CONDITIONS OF SERVICE**

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months. While served under this schedule, the Small General Service rate is unavailable.
2. Company shall install a demand meter for a customer when:
  - a. Customer's connected load is estimated to be 20 kW or greater,
  - b. Customer is served single phase and has a service entrance capacity greater than 200 amperes,
  - c. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes,
  - d. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or
  - e. Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small General Time of Day Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the General Time of Day Service schedule in the next billing month. A customer with a billing

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(Continued on Sheet No. 24.1)

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A12, A16, A18, A22**

Section No. 5  
6th Revised Sheet No. 24

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$25.00 for removal of time of day metering equipment.

**TERMS AND CONDITIONS OF SERVICE**

1. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months. While served under this schedule, the Small General Service rate is unavailable.
2. Company shall install a demand meter for a customer when:
  - a. Customer's connected load is estimated to be 20 kW or greater,
  - b. Customer is served single phase and has a service entrance capacity greater than 200 amperes,
  - c. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes,
  - d. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or
  - e. Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small General Time of Day Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the General Time of Day Service schedule in the next billing month. A customer with a billing

(Continued on Sheet No. 24.1)

Date Filed: 11-02-05

By: Cynthia L. Leshar  
President and CEO of Northern States Power Company

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SMALL GENERAL TIME OF DAY SERVICE (Continued)  
RATE CODE A12 (METERED) AND  
RATE CODE A18 (NON-METERED)

Section No. 5  
3rd Revised Sheet No. 24.1

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TERMS AND CONDITIONS OF SERVICE (Continued)

3. Optional Metering Service: Optional metering is available subject to the provisions in the General Rules and Regulations, Section 1.5, for the following applications:
- a. Kilowatt-hour Metered Service: For applications where a non-time of day meter is used, the time of day metering charge will be waived and the monthly customer charge for each location is \$6.88.
  - b. Unmetered Service: For applications where no metering is installed, the monthly customer charge for each location is \$5.58. If requested by Company, the customer agrees to receive one or more combined bills for all their unmetered service locations. For purposes of applying the appropriate customer service charge, one customer service charge shall be applied for every point of delivery. A point of delivery shall be any location where a meter would otherwise be required under this schedule.
  - c. Low Wattage Unmetered Service: For applications where customer owns and operates multiple electronic devices in at least 500 locations within Company's Minnesota electric service area. Such electronic devices are: 1) individually located at each point of delivery, 2) rated at less than 400 Watts, and 3) operated with a continuous and constant load level year round. Each individual electronic device must not in any way interfere with Company operations and service to adjacent customers. This optional metering service is not applicable to electric service for traffic signals, civil defense, or lighting. Company reserves the right to evaluate customer requests for this optional metering service to determine eligibility.

The monthly fixed charge under this optional metering service shall be \$0.25 per device for devices with a rating of 100 Watts or less. For devices with a rating over 100 Watts but less than 400 Watts, the monthly fixed charge shall be \$1.05 per device. The customer charge shall equal the sum of the fixed charges for customer's low wattage devices in service plus \$0.39 low income discount program cost recovery surcharge for the billing month.

In place of metered usage for each device, customer will be billed for the predetermined energy usage in kWh per device. The energy charge shall equal the sum of the predetermined energy usage for customer's low wattage devices in service for the billing month multiplied by the Constant Hourly Energy Charge applicable for the billing month.

Customer shall contract for this optional metering service through an electric service agreement with Company.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A12, A16, A18, A22**

Section No. 5  
4th Revised Sheet No. 24.1

**TERMS AND CONDITIONS OF SERVICE (Continued)**

demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small General Time of Day Service schedule.

L  
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**3. Optional Metering Service:** Optional metering is available subject to the provisions in the General Rules and Regulations, Section 1.5, for the following applications:

- a. **Kilowatt-hour Metered Service:** For applications where a non-time of day meter is used, the time of day metering charge will be waived and the applicable lower monthly Customer Charge shall apply.
- b. **Unmetered Service:** For applications where no metering is installed, the applicable lower monthly Customer Charge shall apply. If requested by Company, the customer agrees to receive one or more combined bills for all their unmetered service locations. For purposes of applying the appropriate customer service charge, one customer service charge shall be applied for every point of delivery. A point of delivery shall be any location where a meter would otherwise be required under this schedule.
- c. **Low Wattage Unmetered Service:** For applications where customer owns and operates multiple electronic devices in at least 500 locations within Company's Minnesota electric service area. Such electronic devices are: 1) individually located at each point of delivery, 2) rated at less than 400 Watts, and 3) operated with a continuous and constant load level year round. Each individual electronic device must not in any way interfere with Company operations and service to adjacent customers. This optional metering service is not applicable to electric service for traffic signals, civil defense, or lighting. Company reserves the right to evaluate customer requests for this optional metering service to determine eligibility.

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The monthly fixed charge under this optional metering service shall be \$0.25 per device for devices with a rating of 100 Watts or less. For devices with a rating over 100 Watts but less than 400 Watts, the monthly fixed charge shall be \$1.05 per device. The customer charge shall equal the sum of the fixed charges for customer's low wattage devices in service plus \$0.39 low income discount program cost recovery surcharge for the billing month.

In place of metered usage for each device, customer will be billed for the predetermined energy usage in kWh per device. The energy charge shall equal the sum of the predetermined energy usage for customer's low wattage devices in service for the billing month multiplied by the Constant Hourly Energy Charge applicable for the billing month.

Customer shall contract for this optional metering service through an electric service agreement with Company.

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

DIRECT CURRENT SERVICE (CLOSED)  
RATE CODE A13

Section No. 5  
12th Revised Sheet No. 25

EFFECTIVE IN  
Minneapolis and St. Paul

**AVAILABILITY**

Available to any commercial or industrial customer for Direct Current Service only where and to the extent now used.

**RATE**

Customer Charge per Month \$6.88

Demand Charge per Month \$2.75  
per kW of Connected Load

|                       | <u>Oct-May</u> | <u>Jun-Sep</u> |
|-----------------------|----------------|----------------|
| Energy Charge per kWh | \$0.072712     | \$0.082712     |

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**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000456 / kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge and Demand Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-25.1)

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**DIRECT CURRENT SERVICE (CLOSED)**

**RATE CODE A13**

Section No. 5

13th Revised Sheet No. 25

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**CANCELED**

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By: Cynthia L. Leshner

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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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DIRECT CURRENT SERVICE (CLOSED) (Continued)  
RATE CODE A13

Section No. 5  
1st Revised Sheet No: 25.1

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF CONNECTED LOAD FOR PURPOSES OF THIS SCHEDULE**

The nameplate rating shall be the basis of determining the connected load and shall be assumed to be one kW for each hp of nameplate rating. In any case, where there is reasonable doubt as to correctness of manufacturer's rating or where insufficient or no rating exists, the Company may fix the rating by test. For billing purposes, the demand shall be rounded to the nearest 0.1 kW.

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Date Filed: 11-02-05

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**DIRECT CURRENT SERVICE (CLOSED) (Continued)**  
**RATE CODE A13**

Section No. 5  
2nd Revised Sheet No. 25.1

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**CANCELED**

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President and CEO of Northern States Power Company

Docket No. E002/GR05-1428

Order Date: 09-01-06



Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL SERVICE**  
**RATE CODE A14**

Section No. 5  
12th Revised Sheet No. 26

**AVAILABILITY**

Available to any non-residential customer for general service.

**RATE**

Customer Charge per Month \$22.04

| Service at Secondary Voltage   | <u>Oct-May</u> | <u>Jun-Sep</u> |
|--------------------------------|----------------|----------------|
| Demand Charge per Month per kW | \$6.61         | \$9.26         |

Energy Charge per kWh \$0.039904

R

Energy Charge Credit per Month per kWh  
All kWh in Excess of 400 Hours \$0.0070  
Times the Billing Demand

|                                  | <u>January - December</u> |                |
|----------------------------------|---------------------------|----------------|
| Voltage Discounts per Month      | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                  | \$0.95                    | \$0.0005       |
| Transmission Transformed Voltage | \$1.75                    | \$0.0009       |
| Transmission Voltage             | \$2.35                    | \$0.0013       |

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000502 / kWh reduction, to reflect a property tax change.

(Continued on Sheet No. 5-27)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL SERVICE**  
**RATE CODE A14**

Section No. 5  
13th Revised Sheet No. 26

#### AVAILABILITY

Available to any non-residential customer for general service where customer is not required to be on a time-of-day rate schedule. Once the customer's 15-minute measured demands are equal to or greater than 1,000 kW for at least 4 of the past 12 consecutive months, the customer will be transferred to the General Time of Day service.

#### DETERMINATION OF CUSTOMER BILLS

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

#### RATE

|                                        |                           |                |
|----------------------------------------|---------------------------|----------------|
| Customer Charge per Month              | \$22.00                   |                |
| Service at Secondary Voltage           | <u>Oct-May</u>            | <u>Jun-Sep</u> |
| Demand Charge per Month per kW         | \$6.81                    | \$10.15        |
| Energy Charge per kWh                  | \$0.021690                |                |
| Energy Charge Credit per Month per kWh |                           |                |
| All kWh in Excess of 400 Hours         | \$0.0090                  |                |
| Times the Billing Demand               |                           |                |
|                                        | <u>January - December</u> |                |
| Voltage Discounts per Month            | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                        | \$0.90                    | \$0.0007       |
| Transmission Transformed Voltage       | \$1.65                    | \$0.0011       |
| Transmission Voltage                   | \$2.20                    | \$0.0016       |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

(Continued on Sheet No. 5-27)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL SERVICE  
RATE CODE A14**

Section No. 5  
14th Revised Sheet No. 26

**AVAILABILITY**

Available to any non-residential customer for general service where customer is not required to be on a time-of-day rate schedule. Once the customer's 15-minute measured demands are equal to or greater than 1,000 kW for at least 4 of the past 12 consecutive months, the customer will be transferred to the General Time of Day service.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                        |                           |                |
|----------------------------------------|---------------------------|----------------|
| Customer Charge per Month              | \$22.00                   |                |
| Service at Secondary Voltage           | <u>Oct-May</u>            | <u>Jun-Sep</u> |
| Demand Charge per Month per kW         | \$6.81                    | \$10.15        |
| Energy Charge per kWh                  | \$0.021690                |                |
| Energy Charge Credit per Month per kWh |                           |                |
| All kWh in Excess of 400 Hours         | \$0.0090                  |                |
| Times the Billing Demand               |                           |                |
|                                        | <u>January - December</u> |                |
| Voltage Discounts per Month            | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                        | \$0.90                    | \$0.0007       |
| Transmission Transformed Voltage       | \$1.65                    | \$0.0011       |
| Transmission Voltage                   | \$2.20                    | \$0.0016       |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

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(Continued on Sheet No. 5-27)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

GENERAL SERVICE (Continued)  
RATE CODE A14

Section No. 5  
1st Revised Sheet No. 27

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#### **SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

#### **LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

#### **DETERMINATION OF DEMAND**

The adjusted demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW. In no month shall the demand to be billed be considered as less than current month's adjusted demand in kW or 50% of the greatest monthly adjusted demand in kW during the preceding 11 months. In no month shall the billing demand be greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

The greatest monthly adjusted demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

#### **MAXIMUM DEMAND**

The maximum actual demand in kW shall be the greatest 15 minute load during the month for which bill is rendered.

#### **POWER FACTOR**

For three phase customers with services above 200 amperes or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

#### **OFF SEASON LOAD SERVICE**

The optional Off Season Load Service is available under this schedule subject to the provisions contained in the Off Season Load Rider.

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(Continued on Sheet No. 5-28)

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR05-1428

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**GENERAL SERVICE (Continued)**  
**RATE CODE A14**

Section No. 5  
2nd Revised Sheet No. 27

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

N

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

The adjusted demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW. In no month shall the demand to be billed be considered as less than current month's adjusted demand in kW or 50% of the greatest monthly adjusted demand in kW during the preceding 11 months. In no month shall the billing demand be greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

The greatest monthly adjusted demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

**MAXIMUM DEMAND**

The maximum actual demand in kW shall be the greatest 15 minute load during the month for which bill is rendered.

**POWER FACTOR**

For three phase customers with services above 200 amperes or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

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(Continued on Sheet No. 5-28)

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Effective Date: 02-01-07

President and CEO of Northern States Power Company

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GENERAL SERVICE (Continued)  
RATE CODE A14

Section No. 5  
1st Revised Sheet No. 28

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**STANDBY SERVICE**

Standby Service is available under this schedule subject to the provisions contained in the Standby Service Rider.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum billing demand shall not be less than provided above.

**SPLIT SERVICE**

When approved by Company, customer's service may be split between General Service and General Time of Day Service rates. Only Company approved storage space cooling and storage space heating equipment qualifies for the General Time of Day Service portion of a split service installation. The thermal storage equipment shall be permanently wired, separately served and metered, and at no time connected to the general service portion of the split service installation. Each portion of customer's split service installation will be considered separately for all other rate application purposes.

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

**GENERAL SERVICE (Continued)**  
**RATE CODE A14**

Section No. 5  
2nd Revised Sheet No. 28

**OFF SEASON LOAD SERVICE**

The optional Off Season Load Service is available under this schedule subject to the provisions contained in the Off Season Load Rider.

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**STANDBY SERVICE**

Standby Service and Supplemental Generation Service are available under this schedule subject to the provisions contained in the Standby Service Rider or Supplemental Generation Service Rider.

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**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum billing demand shall not be less than provided above.

**SPLIT SERVICE**

When approved by Company, customer's service may be split between General Service and General Time of Day Service rates. Only Company approved storage space cooling and storage space heating equipment qualifies for the General Time of Day Service portion of a split service installation. The thermal storage equipment shall be permanently wired, separately served and metered, and at no time connected to the general service portion of the split service installation. Each portion of customer's split service installation will be considered separately for all other rate application purposes.

(Continued on Sheet No. 28.1)

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

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GENERAL SERVICE (Continued)  
RATE CODE A14

Section No. 5  
Original Sheet No. 28.1

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#### TERMS AND CONDITIONS OF SERVICE

1. Alternating current service is provided at the following nominal voltage:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Customer selecting General Service will remain on this rate for a period of not less than 12 months.
5. If a customer has a billing demand of less than 25 kW for 12 consecutive months, the customer will be given the option of returning to the Small General Service schedule.

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**GENERAL SERVICE (Continued)**  
**RATE CODE A14**

Section No. 5  
Original Sheet No. 28.1

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**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltage:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Customer selecting General Service will remain on this rate for a period of not less than 12 months.
5. If a customer has a billing demand of less than 25 kW for 12 consecutive months, the customer will be given the option of returning to the Small General Service schedule.

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Date Filed: 11-02-05

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President and CEO of Northern States Power Company

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Order Date: 09-01-06

GENERAL TIME OF DAY SERVICE  
RATE CODE A15

Section No. 5  
11th Revised Sheet No. 29

AVAILABILITY

Available to any non-residential customer for general service.

RATE

Customer Charge per Month \$25.04

| Service at Secondary Voltage   | <u>Oct-May</u> | <u>Jun-Sep</u> |
|--------------------------------|----------------|----------------|
| Demand Charge per Month per kW |                |                |
| On Peak Period Demand          | \$6.61         | \$9.26         |

|                                                           |        |        |
|-----------------------------------------------------------|--------|--------|
| Off Peak Period Demand in Excess of On Peak Period Demand | \$2.35 | \$2.35 |
|-----------------------------------------------------------|--------|--------|

|                        |            |   |
|------------------------|------------|---|
| Energy Charge per kWh  |            |   |
| On Peak Period Energy  | \$0.045557 | R |
| Off Peak Period Energy | \$0.035093 | R |

|                                                                                                        |          |
|--------------------------------------------------------------------------------------------------------|----------|
| Energy Charge Credit per Month per kWh                                                                 |          |
| All kWh in Excess of 400 Hours Times the On Peak Period Billing Demand, Not to Exceed 50% of Total kWh | \$0.0070 |

|                                  | <u>January - December</u> |                |
|----------------------------------|---------------------------|----------------|
| Voltage Discounts per Month      | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                  | \$0.95                    | \$0.0005       |
| Transmission Transformed Voltage | \$1.75                    | \$0.0009       |
| Transmission Voltage             | \$2.35                    | \$0.0013       |

INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

(Continued on Sheet No. 5-30)

|                            |                                            |                          |
|----------------------------|--------------------------------------------|--------------------------|
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|                            | Vice President of Jurisdictional Relations |                          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE**  
**RATE CODE A15, A17, A19**

Section No. 5  
12th Revised Sheet No. 29

**AVAILABILITY-MANDATORY**

Effective November 1, 2007, this rate schedule is mandatory for any non-residential customer for general service having a 15-minute measured demand equal to or greater than 1,000 kW for at least 4 of the past 12 consecutive months. Customer will remain on this rate schedule on a mandatory basis unless their demand remains below 1,000 kW for 12 consecutive months.

**AVAILABILITY-OPTIONAL**

This rate schedule is optional for any non-residential customer for general service where customer is not required to be on a time-of-day rate.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                                                                                        |                           |                |    |
|--------------------------------------------------------------------------------------------------------|---------------------------|----------------|----|
| Customer Charge per Month – Time Of Day Metered (A15)                                                  | \$25.00                   |                | TR |
| – kWh Metered (A17)                                                                                    | \$22.00                   |                | TR |
| – Unmetered (A19)                                                                                      | \$19.00                   |                | TR |
| Service at Secondary Voltage                                                                           | <u>Oct-May</u>            | <u>Jun-Sep</u> |    |
| Demand Charge per Month per kW                                                                         |                           |                |    |
| On Peak Period Demand                                                                                  | \$6.81                    | \$10.15        | R  |
| Off Peak Period Demand in Excess of On Peak Period Demand                                              | \$2.20                    | \$2.20         | R  |
| Energy Charge per kWh                                                                                  |                           |                |    |
| On Peak Period Energy                                                                                  | \$0.028710                |                | R  |
| Off Peak Period Energy                                                                                 | \$0.017210                |                | R  |
| Energy Charge Credit per Month per kWh                                                                 |                           |                |    |
| All kWh in Excess of 400 Hours Times the On Peak Period Billing Demand, Not to Exceed 50% of Total kWh | \$0.0090                  |                | R  |
|                                                                                                        | <u>January - December</u> |                |    |
| Voltage Discounts per Month                                                                            | <u>Per kW</u>             | <u>Per kWh</u> |    |
| Primary Voltage                                                                                        | \$0.90                    | \$0.0007       | R  |
| Transmission Transformed Voltage                                                                       | \$1.65                    | \$0.0011       | R  |
| Transmission Voltage                                                                                   | \$2.20                    | \$0.0016       | R  |

(Continued on Sheet No. 5-30)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
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GENERAL TIME OF DAY SERVICE (Continued)  
RATE CODE A15

Section No. 5  
2nd Revised Sheet No. 30

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**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DETERMINATION OF ON PEAK PERIOD DEMAND**

The actual on peak period demand in kW shall be the greatest 15 minute load for the on peak period during the month for which the bill is rendered. The adjusted demand in kW for billing purposes shall be determined by dividing the actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW. In no month shall the on peak period demand to be billed be considered as less than the current month's adjusted on peak period demand in kW, or 50% of the greatest monthly adjusted on peak period demand in kW during the preceding 11 months. In no month shall the on peak billing demand be greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

The greatest monthly adjusted on peak period demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

**DETERMINATION OF OFF PEAK PERIOD DEMAND IN EXCESS OF ON PEAK PERIOD DEMAND**

The actual off peak period demand in kilowatts shall be the greatest 15 minute load for the off peak period during the month for which the bill is rendered rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW, or 50% of the greatest monthly actual off peak period demand in kW during the preceding 11 months.

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(Continued on Sheet No. 5-31)

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
4th Revised Sheet No. 30

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

(Continued on Sheet No. 5-31)

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By: Cynthia L. Leshner

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
4th Revised Sheet No. 30

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

D

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The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

N

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

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(Continued on Sheet No. 5-31)

|             |                 |                                                    |                 |          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
5th Revised Sheet No. 30

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

(Continued on Sheet No. 5-31)

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Docket No. E002/M-06-1505

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GENERAL TIME OF DAY SERVICE (Continued)  
RATE CODE A15

Section No. 5  
2nd Revised Sheet No. 31

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**DETERMINATION OF OFF PEAK PERIOD DEMAND IN EXCESS OF ON PEAK PERIOD DEMAND  
(Continued)**

The greatest monthly actual off peak period demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

The off peak period demand in excess of on peak period demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand as defined above only the off peak period demand is greater.

**POWER FACTOR**

For three phase customers with services above 200 amperes, or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider.

**STANDBY SERVICE**

Standby Service is available under this schedule subject to the provisions contained in the Standby Service Rider.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum on peak period billing demand shall not be less than provided above.

**SPLIT SERVICE**

When approved by Company, customer's service may be split between General Service and General Time of Day Service rates. Only Company approved storage space cooling and storage space heating equipment qualifies for the General Time of Day Service portion of a split service installation. The thermal storage equipment shall be permanently wired, separately served and metered, and at no time connected to the general service portion of the split service installation. Each portion of customer's split service installation will be considered separately for all other rate application purposes.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$35.00 for removal of time of day metering equipment.

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(Continued on Sheet No. 5-32)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR05-1428

Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
3rd Revised Sheet No. 31

**DETERMINATION OF ON PEAK PERIOD DEMAND**

The actual on peak period demand in kW shall be the greatest 15-minute load for the on peak period during the month for which the bill is rendered. The adjusted demand in kW for billing purposes shall be determined by dividing the actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW. In no month shall the on peak period demand to be billed be considered as less than the current month's adjusted on peak period demand in kW, or 50% of the greatest monthly adjusted on peak period demand in kW during the preceding 11 months. In no month shall the on peak billing demand be greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

The greatest monthly adjusted on peak period demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

**DETERMINATION OF OFF PEAK PERIOD DEMAND IN EXCESS OF ON PEAK PERIOD DEMAND**

The actual off peak period demand in kilowatts shall be the greatest 15-minute load for the off peak period during the month for which the bill is rendered rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW, or 50% of the greatest monthly actual off peak period demand in kW during the preceding 11 months.

The greatest monthly adjusted off peak period demand in kW during the preceding 11 months shall not include the additional demand which may result from customer's use of standby capacity contracted for under the Standby Service Rider.

The off peak period demand in excess of on peak period demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand as defined above only the off peak period demand is greater.

**POWER FACTOR**

For three phase customers with services above 200 amperes, or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

(Continued on Sheet No. 5-32)

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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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GENERAL TIME OF DAY SERVICE (Continued)  
RATE CODE A15

Section No. 5  
Original Sheet No. 32  
Relocated from MPUC No. 1 Sheet No. 5-25

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TERMS AND CONDITIONS OF SERVICE

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months.
5. If a customer has a billing demand of less than 25 kW for 12 consecutive months, the customer will be given the option of returning to the Small General Time of Day Service schedule.
6. Optional Metering Service: Optional metering is available subject to the provisions in the General Rules and Regulations, Section 1.5, for the following applications:
  - a. Kilowatt-hour Metered Service: For applications where a non-time of day meter is used, the time of day metering charge will be waived and the monthly customer charge for each location is \$21.65.
  - b. Unmetered Service: For applications where no metering is installed, the monthly customer charge for each location is \$15.10. If requested by Company, the customer agrees to receive one or more combined bills for all their unmetered service locations. For purposes of applying the appropriate customer service charge, one customer service charge shall be applied for every point of delivery. A point of delivery shall be any location where a meter would otherwise be required under this schedule.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

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Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
1st Revised Sheet No. 32

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider.

**STANDBY SERVICE**

Standby Service is available under this schedule subject to the provisions contained in the Standby Service Rider.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum on peak period billing demand shall not be less than provided above.

**SPLIT SERVICE**

When approved by Company, customer's service may be split between General Service and General Time of Day Service rates. Only Company approved storage space cooling and storage space heating equipment qualifies for the General Time of Day Service portion of a split service installation. The thermal storage equipment shall be permanently wired, separately served and metered, and at no time connected to the general service portion of the split service installation. Each portion of customer's split service installation will be considered separately for all other rate application purposes.

**OPTIONAL TRIAL SERVICE**

Customers may elect time of day service for a trial period of three months. If a customer chooses to return to non-time of day service after the trial period, the customer will pay a charge of \$35.00 for removal of time of day metering equipment.

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

(Continued on Sheet No. 5-32.1)

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**GENERAL TIME OF DAY SERVICE (Continued)**  
**RATE CODE A15, A17, A19**

Section No. 5  
Original Sheet No. 32.1

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Customer selecting the above time of day rate schedule will remain on this rate for a period of not less than 12 months.
5. If a customer has a billing demand of less than 25 kW for 12 consecutive months, the customer will be given the option of returning to the Small General Time of Day Service schedule.
6. Optional Metering Service: Optional metering is available subject to the provisions in the General Rules and Regulations, Section 1.5, for the following applications:
  - a. Kilowatt-hour Metered Service: For applications where a non-time of day meter is used, the time of day metering charge will be waived and the applicable lower monthly Customer Charge shall apply.
  - b. Unmetered Service: This rate is for applications where no metering is installed and the applicable lower monthly Customer Charge shall apply. If requested by Company, the customer agrees to receive one or more combined bills for all their unmetered service locations. For purposes of applying the appropriate customer service charge, one customer service charge shall be applied for every point of delivery. A point of delivery shall be any location where a meter would otherwise be required under this schedule.

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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PEAK CONTROLLED SERVICE (CLOSED)  
RATE CODE A20

Section No. 5  
12th Revised Sheet No. 33

AVAILABILITY

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

RATE

Customer Charge per Month \$47.04

Service at Secondary Voltage

Energy Charge per kWh \$0.039904

R

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours \$0.0070

Times the Sum of All Billing Demands

Demand Charge per Month per kW

Oct-May

Jun-Sep

Firm Demand

\$6.61

\$9.26

Controllable Demand

Option A

\$4.30

\$4.69

Option B

\$3.71

\$6.36

January - December

Voltage Discounts per Month

Per kW

Per kWh

Primary Voltage

\$0.95

\$0.0005

Transmission Transformed Voltage

\$1.75

\$0.0009

Transmission Voltage

\$2.35

\$0.0013

INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No. 5-34)

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED SERVICE (CLOSED)**  
**RATE CODE A20**

Section No. 5  
13th Revised Sheet No. 33

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PEAK CONTROLLED SERVICE (CLOSED) (Continued)  
RATE CODE A20

Section No. 5  
2nd Revised Sheet No. 34

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

Maximum Actual Demand in kW shall be the greatest 15 minute load during the billing month.

Adjusted Demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW.

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted demand must not exceed the predetermined demand level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's PDL will be the monthly adjusted demand less the fixed load reduction. Customers selecting the Optional PDL after September 28, 1995, must be equipped with backup generation to provide the fixed load reduction.

Firm Demand for the billing month shall be the lesser of predetermined demand or adjusted demand, except in months when customer fails to control load to predetermined demand level when requested by Company. In these months, firm demand shall be the adjusted demand established during the control period.

(Continued on Sheet No. 5-35)

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and wholly owned subsidiary of Xcel Energy Inc.  
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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED SERVICE (CLOSED) (Continued)**  
**RATE CODE A20**

Section No. 5  
3rd Revised Sheet No. 34

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PEAK CONTROLLED SERVICE (CLOSED) (Continued)  
RATE CODE A20

Section No. 5  
1st Revised Sheet No. 35

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**DETERMINATION OF DEMAND (Continued)**

Controllable Demand shall be the difference between customer's adjusted demand during the billing month and the greater of predetermined demand or firm demand, but never less than zero.

Minimum Demand to be billed each month shall not be less than the current month's adjusted demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The annual minimum demand charge shall be no less than six times the average monthly firm demand charge per kW times the predetermined demand, plus six times the average monthly controllable demand charge per kW times the maximum controllable demand.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

**OTHER PROVISIONS**

Peak Controlled Service (Closed) is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed).

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

(Continued on Sheet No. 5-35.1)

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED SERVICE (CLOSED) (Continued)**  
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Section No. 5  
2nd Revised Sheet No. 35

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Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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PEAK CONTROLLED SERVICE (CLOSED) (Continued)  
RATE CODE A20

Section No. 5  
Original Sheet No. 35.1

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TERMS AND CONDITIONS OF SERVICE (Continued)

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer. L  
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3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B). L  
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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED SERVICE (CLOSED) (Continued)**  
**RATE CODE A20**

Section No. 5  
1st Revised Sheet No. 35.1

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**CANCELED**

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|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

PEAK CONTROLLED TIME OF DAY SERVICE  
(CLOSED)  
RATE CODE A21

Section No. 5  
7th Revised Sheet No. 36

AVAILABILITY

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

RATE

Customer Charge per Month \$50.04

Service at Secondary Voltage

Energy Charge per kWh

On Peak Period Energy \$0.045557

Off Peak Period Energy \$0.035093

R

R

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours Times the \$0.0070

Sum of All On Peak Period Billing Demands,  
Not to Exceed 50% of Total kWh

Demand Charge per Month per kW

Oct-May

Jun-Sep

On Peak Period Demand

Firm Demand

\$6.61

\$9.26

Controllable Demand

Option A

\$4.30

\$4.69

Option B

\$3.71

\$6.36

Off Peak Period Demand in Excess  
of On Peak Period Demand

\$2.35

\$2.35

January - December

Voltage Discounts per Month

Per kW

Per kWh

Primary Voltage

\$0.95

\$0.0005

Transmission Transformed Voltage

\$1.75

\$0.0009

Transmission Voltage

\$2.35

\$0.0013

INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge,  
Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning  
Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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(Continued on Sheet No. 5-37)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIME OF DAY SERVICE (CLOSED)  
RATE CODE A21**

Section No. 5  
8th Revised Sheet No. 36

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PEAK CONTROLLED TIME OF DAY SERVICE  
(CLOSED) (Continued)  
RATE CODE A21

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Section No. 5  
7th Revised Sheet No. 37

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

C

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DETERMINATION OF DEMAND**

Actual On Peak Period Demand in kW shall be the greatest 15 minute load for the on peak period during the billing month.

Adjusted On Peak Period Demand in kW for billing purposes shall be determined by dividing the actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW.

Actual Off Peak Period Demand in kW shall be the greatest 15 minute load for the off peak period during the billing month rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW.

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(Continued on Sheet No. 5-38)

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Vice President of Jurisdictional Relations

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIME OF DAY SERVICE (CLOSED)**

**(Continued)**

**RATE CODE A21**

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Section No. 5

8th Revised Sheet No. 37

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PEAK CONTROLLED TIME OF DAY SERVICE  
(CLOSED) (Continued)  
RATE CODE A21

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Section No. 5  
1st Revised Sheet No. 38

**DETERMINATION OF DEMAND (Continued)**

Off Peak Period Demand in Excess of On Peak Period Demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand only if the off peak period demand is greater.

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Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted on peak demand must not exceed the predetermined demand level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's PDL will be the monthly adjusted on peak demand less the fixed load reduction. Customers selecting the Optional PDL after September 28, 1995, must be equipped with backup generation to provide the fixed load reduction.

Firm Demand for the billing month shall be the lesser of predetermined demand or adjusted on peak period demand, except in months when customer fails to control load to predetermined demand level when requested by Company. In these months, firm demand shall be the adjusted on peak period demand established during the control period.

Controllable Demand shall be the difference between customer's adjusted on peak period demand during the billing month and the greater of predetermined demand or firm demand, but never less than zero.

Minimum On Peak Demand to be billed each month shall not be less than the current month's adjusted on peak period demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The annual minimum demand charge shall be no less than six times the average monthly firm demand charge per kW times the predetermined demand, plus six times the average monthly controllable demand charge per kW times the maximum controllable demand.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

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(Continued on Sheet No. 5-39)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIME OF DAY SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A21**

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2nd Revised Sheet No. 38

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Northern States Power Company  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIME OF DAY SERVICE  
(CLOSED) (Continued)  
RATE CODE A21**

Section No. 5  
Original Sheet No. 39  
Relocated from MPUC No. 1 Sheet No. 5-29.5

**OTHER PROVISIONS**

Peak Controlled Time of Day Service (Closed) is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed).

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).

Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIME OF DAY SERVICE  
(CLOSED) (Continued)  
RATE CODE A21**

Section No. 5  
1st Revised Sheet No. 39

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**CANCELED**

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

PEAK CONTROLLED TIERED SERVICE  
RATE CODE A23

Section No. 5  
12th Revised Sheet No. 40

**AVAILABILITY**

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

**RATE**

Customer Charge per Month \$47.04

Service at Secondary Voltage

Energy Charge per kWh \$0.039904

R

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours \$0.0070

Times the Sum of All Billing Demands

Demand Charge per Month per kW

Tier 1

Tier 2

Firm Demand

June - September

\$9.26

\$9.26

Other Months

\$6.61

\$6.61

Controllable Demand (Jan-Dec)

Level A: < 65% PF

Not Available

\$4.43

Level B: ≥ 65% and < 85% PF

\$3.49

\$4.09

Level C: ≥ 85% PF

\$2.99

\$3.69

January - December

Voltage Discounts per Month

Per kW

Per kWh

Primary Voltage

\$0.95

\$0.0005

Transmission Transformed Voltage

\$1.75

\$0.0009

Transmission Voltage

\$2.35

\$0.0013

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No. 5-41)

Date Filed: 11-02-05

By: Kent T. Larson

Effective Date: 01-01-06

Vice President of Jurisdictional Relations

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota Corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED SERVICE  
RATE CODE A23**

Section No. 5  
13th Revised Sheet No. 40

**AVAILABILITY**

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company and where customer is not required to be on a time-of-day rate schedule. Once the customer's total 15-minute measured demands (Firm plus Controllable) are equal to or greater than 1000 kW for at least 4 of the past 12 consecutive months, the customer will be transferred to the Peak Controlled Tiered Time of Day service. Availability is restricted to customers with a minimum Controllable demand of 50 kW.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                        |                           |                |   |
|----------------------------------------|---------------------------|----------------|---|
| Customer Charge per Month              | \$50.00                   |                | R |
| Service at Secondary Voltage           |                           |                |   |
| Energy Charge per kWh                  | \$0.021690                |                | R |
| Energy Charge Credit per Month per kWh |                           |                |   |
| All kWh in Excess of 400 Hours         | \$0.0090                  |                | R |
| Times the Sum of All Billing Demands   |                           |                |   |
| Demand Charge per Month per kW         | <u>Tier 1</u>             | <u>Tier 2</u>  |   |
| Firm Demand                            |                           |                |   |
| June - September                       | \$10.15                   | \$10.15        | R |
| Other Months                           | \$6.81                    | \$6.81         | R |
| Controllable Demand (Jan-Dec)          |                           |                |   |
| Level A: < 65% PF                      | Not Available             | \$4.86         | R |
| Level B: ≥ 65% and < 85% PF            | \$3.92                    | \$4.52         | R |
| Level C: ≥ 85% PF                      | \$3.42                    | \$4.12         | R |
| Schedule L Interruption Rider          | \$2.92                    | Not Available  | R |
|                                        | <u>January - December</u> |                |   |
| Voltage Discounts per Month            | <u>Per kW</u>             | <u>Per kWh</u> |   |
| Primary Voltage                        | \$0.90                    | \$0.0007       | R |
| Transmission Transformed Voltage       | \$1.65                    | \$0.0011       | R |
| Transmission Voltage                   | \$2.20                    | \$0.0016       | R |

(Continued on Sheet No. 5-41)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum controllable demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual controllable demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP's established criteria.

**DETERMINATION OF DEMAND**

Maximum Actual Demand in kW shall be the greatest 15 minute load during the billing month.

Adjusted Demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW.

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted demand must not exceed the predetermined demand level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's PDL will be the monthly adjusted demand less the fixed load reduction. Customers selecting the Optional PDL must either be equipped with back-up generation to provide the fixed load reduction or have a specific load that can be separately sub-metered and has an annual load factor of 90% or greater.

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(Continued on Sheet No. 5-42)

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED SERVICE (Continued)**  
**RATE CODE A23**

Section No. 5  
3rd Revised Sheet No. 41

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

D

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum Controllable Demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual Controllable Demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP's established criteria.

T

T

**DETERMINATION OF DEMAND**

Maximum Actual Demand in kW shall be the greatest 15-minute load during the billing month.

Adjusted Demand in kW for billing purposes shall be determined by dividing the Maximum Actual Demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW.

T

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(Continued on Sheet No. 5-42)

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By: Cynthia L. Leshner

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIERED SERVICE (Continued)**  
**RATE CODE A23**

Section No. 5  
4th Revised Sheet No. 41

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In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum Controllable Demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual Controllable Demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP's established criteria.

**DETERMINATION OF DEMAND**

Maximum Actual Demand in kW shall be the greatest 15-minute load during the billing month.

Adjusted Demand in kW for billing purposes shall be determined by dividing the Maximum Actual Demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW.

(Continued on Sheet No. 5-42)

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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PEAK CONTROLLED TIERED SERVICE (Continued)  
RATE CODE A23

Section No. 5  
Original Sheet No. 42  
Relocated from MPUC No. 1 Sheet No. 5-30.1

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**DETERMINATION OF DEMAND (Continued)**

Firm Demand for the billing month shall be the lesser of predetermined demand or adjusted demand, except in months when customer fails to control load to predetermined demand level when requested by Company. In these months, firm demand shall be the adjusted demand established during the control period.

Controllable Demand shall be the difference between adjusted demand during the billing month and the greater of predetermined demand or firm demand, but never less than zero.

Minimum Demand to be billed each month shall not be less than the current month's adjusted demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The annual minimum demand charge shall be no less than six times the average monthly firm demand charge per kW times the predetermined demand, plus six times the controllable demand charge per kW times the maximum controllable demand.

**TIER 1 PEAK CONTROLLED SCHEDULE L INTERRUPTION**

Tier 1 Peak Controlled Schedule L Interruption option is available on experimental basis under this schedule subject to the provisions contained in the Experimental Tier 1 Peak Controlled Schedule L Interruption Rider.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

**OTHER PROVISIONS**

Peak Controlled Tiered Service is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed).

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(Continued on Sheet No. 5-43)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED SERVICE (Continued)**  
**RATE CODE A23**

Section No. 5  
1st Revised Sheet No. 42

**DETERMINATION OF DEMAND (Continued)**

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's Adjusted Demand must not exceed the Predetermined Demand Level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's Firm Demand will vary from month-to-month while the Controllable Demand remains fixed each month. The Firm Demand will be the Adjusted Demand (based on the Maximum Actual Demand for the month) less the fixed amount of Controllable Demand. Customer's PDL will be the monthly adjusted demand less the fixed load reduction. Customers selecting the Optional PDL must either be equipped with back-up generation to provide the fixed load reduction or have a specific load that can be separately sub-metered and has an annual load factor of 90% or greater.

Firm Demand for the billing month shall be the lesser of Predetermined Demand or Adjusted Demand, except in months when customer fails to control load to Predetermined Demand Level when requested by Company. In these months, Firm Demand shall be the adjusted demand established during the control period. For optional PDL customers, Firm Demand shall be Adjusted Demand less Controllable Demand, except in months when customer fails to control the full amount of their fixed Controllable Demand. In these months the Firm Demand shall be the Adjusted Demand less the amount of Demand that was controlled as shown by meter measurement.

Controllable Demand shall be the difference between Adjusted Demand during the billing month and the greater of Predetermined Demand or Firm Demand, but never less than zero.

Minimum Demand to be billed each month as either Firm Demand, Controllable Demand or a combination of both shall not be less than the current month's adjusted demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The Annual Minimum Demand Charge shall be no less than six times the average monthly Firm Demand Charge per kW times the maximum Predetermined Demand, plus six times the Controllable Demand Charge per kW times the maximum Controllable Demand.

(Continued on Sheet No. 5-43)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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PEAK CONTROLLED TIERED SERVICE (Continued)  
RATE CODE A23

Section No. 5  
Original Sheet No. 43  
Relocated from MPUC No. 1 Sheet No. 5-30.2

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**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIERED SERVICE (Continued)**  
**RATE CODE A23**

Section No. 5  
1st Revised Sheet No. 43

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#### **TIER 1 PEAK CONTROLLED SCHEDULE L INTERRUPTION**

Tier 1 Peak Controlled Schedule L Interruption option is available under this schedule subject to the provisions contained in the Tier 1 Peak Controlled Schedule L Interruption Rider.

#### **COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

#### **OTHER PROVISIONS**

Peak Controlled Tiered Service is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services.

#### **TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).

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By: Cynthia L. Leshar  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002GR-05-1428

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**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
**RATE CODE A24**

Section No. 5  
 7th Revised Sheet No. 44

**AVAILABILITY**

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

**RATE**

Customer Charge per Month \$50.04

**Service at Secondary Voltage**

Energy Charge per kWh

On Peak Period Energy \$0.045557

Off Peak Period Energy \$0.035093

R  
 R

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours Times the Sum of All On Peak Period Billing Demands,  
 Not to Exceed 50% of Total kWh \$0.0070

Demand Charge per Month per kW

Tier 1

Tier 2

On Peak Period Demand

Firm Demand

June - September

\$9.26

\$9.26

Other Months

\$6.61

\$6.61

Controllable Demand (Jan-Dec)

Level A: < 65% PF

Not Available

\$4.43

Level B: ≥ 65% and < 85% PF

\$3.49

\$4.09

Level C: ≥ 85% PF

\$2.99

\$3.69

Off Peak Period Demand in Excess of

\$2.35

\$2.35

On Peak Period Demand (Jan-Dec)

January - December

Voltage Discounts per Month

Per kW

Per kWh

Primary Voltage

\$0.95

\$0.0005

Transmission Transformed Voltage

\$1.75

\$0.0009

Transmission Voltage

\$2.35

\$0.0013

(Continued on Sheet No. 5-45)

Date Filed: 11-02-05

By: Kent T. Larson

Effective Date: 01-01-06

Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE  
RATE CODE A24**

Section No. 5  
8th Revised Sheet No. 44

**AVAILABILITY**

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

**AVAILABILITY-MANDATORY**

Effective November 1, 2007, this rate schedule is mandatory for any Peak Controlled Tiered customer having a 15-minute measured demand equal to or greater than 1000 kW for at least 4 of the past 12 consecutive months. Customer will remain on this rate schedule on a mandatory basis unless their demand remains below 1000 kW for 12 consecutive months.

**AVAILABILITY-OPTIONAL**

This rate schedule is optional for any non-residential customer for general service where customer is not required to be on a time-of-day rate.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                                                                                                                          |            |   |
|--------------------------------------------------------------------------------------------------------------------------|------------|---|
| Customer Charge per Month                                                                                                | \$50.00    | R |
| Service at Secondary Voltage                                                                                             |            |   |
| Energy Charge per kWh                                                                                                    |            |   |
| On Peak Period Energy                                                                                                    | \$0.028710 | R |
| Off Peak Period Energy                                                                                                   | \$0.017210 | R |
| Energy Charge Credit per Month per kWh                                                                                   |            |   |
| All kWh in Excess of 400 Hours Times the<br>Sum of All On Peak Period Billing Demands,<br>Not to Exceed 50% of Total kWh | \$0.0090   | R |

(Continued on Sheet No. 5-45)

|                            |                                                    |                          |
|----------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 11-02-05       | By: Cynthia L. Leshner                             | Effective Date: 02-01-07 |
|                            | President and CEO of Northern States Power Company |                          |
| Docket No. E002/GR-05-1428 |                                                    | Order Date: 09-01-06     |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
(Continued)  
**RATE CODE A24**

Section No. 5  
8th Revised Sheet No. 45

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**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum controllable demand occurring from 1 p.m. to 7 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual controllable demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP established criteria.

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(Continued on Sheet No. 5-46)

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05



**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

PEAK CONTROLLED TIERED TIME OF DAY SERVICE  
(Continued)  
RATE CODE A24

Section No. 5  
9th Revised Sheet No. 45

### RATE (Continued)

|                                     |                           |                |
|-------------------------------------|---------------------------|----------------|
| Demand Charge per Month per kW      | <u>Tier 1</u>             | <u>Tier 2</u>  |
| On Peak Period Demand               |                           |                |
| Firm Demand                         |                           |                |
| June - September                    | \$10.15                   | \$10.15        |
| Other Months                        | \$6.81                    | \$6.81         |
| Controllable Demand (Jan-Dec)       |                           |                |
| Level A: < 65% PF                   | Not Available             | \$4.86         |
| Level B: ≥ 65% and < 85% PF         | \$3.92                    | \$4.52         |
| Level C: ≥ 85% PF                   | \$3.42                    | \$4.12         |
| Schedule L Interruption Rider       | \$2.92                    | Not Available  |
| Off Peak Period Demand in Excess of | \$2.20                    | \$2.20         |
| On Peak Period Demand (Jan-Dec)     |                           |                |
|                                     | <u>January - December</u> |                |
| Voltage Discounts per Month         | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                     | \$0.90                    | \$0.0007       |
| Transmission Transformed Voltage    | \$1.65                    | \$0.0011       |
| Transmission Voltage                | \$2.20                    | \$0.0016       |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

## FUEL CLAUSE

**Bills are subject to the adjustments provided for in the Fuel Clause Rider.**

## RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

## ENVIRONMENTAL IMPROVEMENT RIDER

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-46)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President, Customer and Community Relations

Effective Date: 02-01-07

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Order Date: 09-01-06

Northern States Power Company, a Minnesota Corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
**(Continued)**  
**RATE CODE A24**

Section No. 5  
10th Revised Sheet No. 45

**RATE (Continued)**

| Demand Charge per Month per kW                                         | <u>Tier 1</u>             | <u>Tier 2</u>  |
|------------------------------------------------------------------------|---------------------------|----------------|
| On Peak Period Demand                                                  |                           |                |
| Firm Demand                                                            |                           |                |
| June - September                                                       | \$10.15                   | \$10.15        |
| Other Months                                                           | \$6.81                    | \$6.81         |
| Controllable Demand (Jan-Dec)                                          |                           |                |
| Level A: < 65% PF                                                      | Not Available             | \$4.86         |
| Level B: $\geq$ 65% and < 85% PF                                       | \$3.92                    | \$4.52         |
| Level C: $\geq$ 85% PF                                                 | \$3.42                    | \$4.12         |
| Schedule L Interruption Rider                                          | \$2.92                    | Not Available  |
| Off Peak Period Demand in Excess of<br>On Peak Period Demand (Jan-Dec) | \$2.20                    | \$2.20         |
|                                                                        | <u>January - December</u> |                |
| Voltage Discounts per Month                                            | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                                                        | \$0.90                    | \$0.0007       |
| Transmission Transformed Voltage                                       | \$1.65                    | \$0.0011       |
| Transmission Voltage                                                   | \$2.20                    | \$0.0016       |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

(Continued on Sheet No. 5-46)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

PEAK CONTROLLED TIERED TIME OF DAY SERVICE  
(Continued)  
RATE CODE A24

Section No. 5  
2nd Revised Sheet No. 46

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**DETERMINATION OF DEMAND**

Actual On Peak Period Demand in kW shall be the greatest 15 minute load for the on peak period during the billing month.

Adjusted On Peak Period Demand in kW for billing purposes shall be determined by dividing the actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW.

Actual Off Peak Period Demand in kW shall be the greatest 15 minute load for the off peak period during the billing month rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW.

Off Peak Period Demand in Excess of On Peak Period Demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand only if the off peak period demand is greater.

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted on peak demand must not exceed the predetermined demand level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's PDL will be the monthly adjusted on peak demand less the fixed load reduction. Customers selecting the Optional PDL must either be equipped with back-up generation to provide the fixed load reduction or have a specific load that can be separately sub-metered and has an annual load factor of 90% or greater.

Firm Demand for the billing month shall be the lesser of predetermined demand or adjusted on peak period demand, except in months when customer fails to control load to predetermined demand level when requested by Company. In these months, firm demand shall be the adjusted on peak period demand established during the control period.

Controllable Demand shall be the difference between adjusted on peak demand during the billing month and the greater of predetermined demand or firm demand, but never less than zero.

Minimum On Peak Demand to be billed each month shall not be less than the current month's adjusted on peak period demand in kW.

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(Continued on Sheet No. 5-47)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
**(Continued)**  
**RATE CODE A24**

Section No. 5  
4th Revised Sheet No. 46

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum Controllable Demand occurring from 1 p.m. to 7 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual Controllable Demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP established criteria.

**DETERMINATION OF DEMAND**

Maximum Actual On Peak Period Demand in kW shall be the greatest 15-minute load for the on peak period during the billing month.

Adjusted On Peak Period Demand in kW for billing purposes shall be determined by dividing the Maximum Actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW.

Maximum Actual Off Peak Period Demand in kW shall be the greatest 15-minute load for the off peak period during the billing month rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW.

Off Peak Period Demand in Excess of On Peak Period Demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand only if the off peak period demand is greater.

(Continued on Sheet No. 5-47)

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President and CEO of Northern States Power Company  
Docket No. E002/GR-05-1428 Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE  
(Continued)  
RATE CODE A24**

Section No. 5  
4th Revised Sheet No. 46

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m., except beginning in 2007 the on peak period will be 10:00 a.m. to 10:00 p.m. during two periods: the second Sunday in March to the first Sunday in April; and the last Sunday in October to the first Sunday in November. The on peak period occurs Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DEFINITION OF PERFORMANCE FACTOR (PF)**

Performance factor is defined in percentage terms as the average of the July and August calendar month unadjusted maximum Controllable Demand occurring from 1 p.m. to 7 p.m. on weekdays, or which has been permanently shifted out of normal control period times, divided by the unadjusted maximum annual Controllable Demand. Customers claiming permanent load shifts must provide verification to Company, based on NSP established criteria.

**DETERMINATION OF DEMAND**

Maximum Actual On Peak Period Demand in kW shall be the greatest 15-minute load for the on peak period during the billing month.

Adjusted On Peak Period Demand in kW for billing purposes shall be determined by dividing the Maximum Actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW.

Maximum Actual Off Peak Period Demand in kW shall be the greatest 15-minute load for the off peak period during the billing month rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW.

Off Peak Period Demand in Excess of On Peak Period Demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand only if the off peak period demand is greater.

(Continued on Sheet No. 5-47)

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By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
(Continued)  
**RATE CODE A24**

Section No. 5  
1st Revised Sheet No. 47

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**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

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**ANNUAL MINIMUM DEMAND CHARGE**

The annual minimum demand charge shall be no less than six times the average monthly firm demand charge per kW times the predetermined demand, plus six times the controllable demand charge per kW times the maximum controllable demand.

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**TIER 1 ENERGY CONTROLLED SERVICE**

Tier 1 Energy Controlled Service is available under this schedule only to customers that were taking service on the Energy Controlled Service (Closed) tariff on or before March 31, 1994, subject to the provisions contained in the Tier 1 Energy Controlled Service Rider.

**TIER 1 PEAK CONTROLLED SCHEDULE L INTERRUPTION**

Tier 1 Peak Controlled Schedule L Interruption option is available on experimental basis under this schedule subject to the provisions contained in the Experimental Tier 1 Peak Controlled Schedule L Interruption Rider.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

**OTHER PROVISIONS**

Peak Controlled Tiered Time of Day Service is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed).

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
(Continued)  
**RATE CODE A24**

Section No. 5  
2nd Revised Sheet No. 47

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted on peak demand must not exceed the predetermined demand level (PDL) during a control period.

*Standard PDL* customers must agree to a fixed demand level and limit load to that level during a control period.

*Optional PDL* customers must agree to reduce demand by a fixed amount during a control period. Customer's Firm Demand will vary from month-to-month while the Controllable Demand remains fixed each month. The Firm Demand will be the Adjusted Demand (based on the Maximum Actual Demand for the month) less the fixed amount of Controllable Demand. Customer's PDL will be the monthly adjusted on peak demand less the fixed load reduction. Customers selecting the Optional PDL must either be equipped with back-up generation to provide the fixed load reduction or have a specific load that can be separately sub-metered and has an annual load factor of 90% or greater.

Firm Demand for the billing month shall be the lesser of Predetermined Demand or Adjusted on Peak Period Demand, except in months when customer fails to control load to Predetermined Demand Level when requested by Company. In these months, Firm Demand shall be the adjusted on peak period demand established during the control period. For Optional PDL customers, Firm Demand shall be Adjusted On Peak Demand less Controllable Demand, except in months when customer fails to control the full amount of their fixed Controllable Demand. In the months the Firm Demand shall be the Adjusted On Peak Period Demand less the amount of Demand that was controlled as shown by meter measurement.

Controllable Demand shall be the difference between Adjusted on Peak Period Demand during the billing month and the greater of Predetermined Demand or firm demand, but never less than zero.

Minimum On Peak Demand to be billed each month as either Firm Demand Controllable Demand or combination of both shall not be less than the current month's Adjusted on Peak Period Demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The Annual Minimum Demand Charge shall be no less than six times the average monthly Firm Demand Charge per kW times the predetermined demand, plus six times the Controllable Demand Charge per kW times the maximum Controllable Demand.

(Continued on Sheet No. 47.1)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
**(Continued)**  
**RATE CODE A24**

Section No. 5  
Original Sheet No. 47.1

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**PEAK CONTROLLED TIERED TIME OF DAY SERVICE**  
(Continued)  
**RATE CODE A24**

Section No. 5  
1st Revised Sheet No. 47.1

**TIER 1 ENERGY CONTROLLED SERVICE**

Tier 1 Energy Controlled Service is available under this schedule subject to the provisions contained in the Tier 1 Energy Controlled Service Rider.

**TIER 1 PEAK CONTROLLED SCHEDULE L INTERRUPTION**

Tier 1 Peak Controlled Schedule L Interruption option is available under this schedule subject to the provisions contained in the Tier 1 Peak Controlled Schedule L Interruption Rider.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

**OTHER PROVISIONS**

Peak Controlled Tiered Time of Day Service is also subject to provisions contained in Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services.

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).

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By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

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Order Date: 09-01-06



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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**RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES AND PEAK CONTROLLED  
SERVICES (CLOSED)**

Section No. 5  
Original Sheet No. 48  
Relocated from MPUC No. 1 Sheet No. 5-32

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1. Customer has the responsibility of controlling own load to predetermined demand level.
2. Customer must allow Company to inspect and approve the load control installation and equipment provided by customer.
3. If controlled demand is 10,000 kW or larger, Company may require customer to:
  - a. Provide auxiliary contacts for remote indication of position of switch or circuit breaker used to control demand and wire auxiliary contacts into a connection point designated by Company,
  - b. Install the remote breaker indication equipment provided by Company, and
  - c. Provide a continuous 120 volt AC power source at the connection point for operation of the Company remote breaker indication equipment.
4. Company will endeavor to give customer one hour notice of commencement of control period, and as much additional notice as is practical. However, control period may be commenced without notice should Company determine such action is necessary.
5. Failure to Control Charge: An additional charge of \$8.00 (\$10.00 for Tier 1) per kW will apply during each Company specified control period to the amount by which customer's maximum adjusted demand exceeds their predetermined demand level. After three such customer failures to control load to their predetermined demand level, Company reserves the right to increase the predetermined demand level, or transfer customer to General Service or General Time of Day Service and apply the cancellation charge specified in customer's Electric Service Agreement.
6. The duration and frequency of control periods shall be at the discretion of Company. Control periods will normally occur when:
  - a. Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or
  - b. In Company's opinion, the reliability of the system is endangered.

Peak Controlled Tiered Service - Tier 2 and Peak Controlled Service (Closed) customers will be separated into two groups by Company with control periods applicable to one or both groups. Customer groups are determined by geographical location and equivalent total controllable load. Control periods will apply to both customer groups at times of the highest forecast system load levels. Control periods at other high load times may apply to only one of the customer groups. Customer groups will be defined as subject to control periods on either even or odd numbered days.

(Continued on Sheet No. 5-49)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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**RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES**

Section No. 5  
1st Revised Sheet No. 48

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1. Customer has the responsibility of controlling own load to Predetermined Demand Level.
2. Customer must allow Company to inspect and approve the load control installation and equipment provided by customer.
3. If controlled demand is 10,000 kW or larger, Company may require customer to:
  - a. Provide auxiliary contacts for remote indication of position of switch or circuit breaker used to control demand and wire auxiliary contacts into a connection point designated by Company,
  - b. Install the remote breaker indication equipment provided by Company, and
  - c. Provide a continuous 120 volt AC power source at the connection point for operation of the Company remote breaker indication equipment.
4. Company will endeavor to give customer one hour notice of commencement of control period, and as much additional notice as is practical. However, control period may be commenced without notice should Company determine such action is necessary.
5. Failure to Control Charge: An additional charge of \$8.00 (\$10.00 for Tier 1) per kW will apply during each Company specified control period to the amount by which customer's Maximum Adjusted Demand or Maximum Adjusted On Peak Period Demand exceeds their predetermined demand level. After three such customer failures to control load to their Predetermined Demand Level, Company reserves the right to increase the Predetermined Demand Level, or transfer customer to General Service or General Time of Day Service and apply the cancellation charge specified in customer's Electric Service Agreement.
6. The duration and frequency of control periods shall be at the discretion of Company. Control periods will normally occur when:
  - a. Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or
  - b. In Company's opinion, the reliability of the system is endangered.

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(Continued on Sheet No. 5-49)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



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RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES AND PEAK CONTROLLED  
SERVICES (CLOSED) (Continued)

Section No. 5  
Original Sheet No. 49  
Relocated from MPUC No. 1 Sheet No. 5-32 &  
5-32.1

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7. Customer must execute an Electric Service Agreement with Company which will include:

Peak Controlled Tiered Service - Tier 1

- a. A minimum initial 10 year term of service which includes a one year trial period and a three year cancellation notice effective after the initial term of service,
- b. The predetermined demand level, which may be revised subject to approval by Company,
- c. Minimum demand charge differential,
- d. Maximum 150 hours of interruption,
- e. Cancellation charge terms, and
- f. Control period notice.

Peak Controlled Tiered Service - Tier 2 and Peak Controlled Service (Closed)

- a. A minimum initial five year term of service which includes a one year trial period and a six month cancellation notice effective after the initial term of service,
- b. The predetermined demand level, which may be revised subject to approval by Company,
- c. Minimum demand charge differential,
- d. Maximum 80 hours of interruption,
- e. Cancellation charge terms, and
- f. Control period notice.

8. Peak Controlled Tiered Service customers choosing the Tier 1 rate option will be subject to an additional monthly charge for a Company approved and installed two-way communications system. The system equipment allows NSP to determine remotely customer load levels and to notify customers of control periods.
9. Minimum controllable demand during the Company's peak season shall be 50 kW.
10. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
11. Company will determine, at a service location designated by Company, the number of services supplied. Customers requesting special facilities will be charged the additional costs incurred for such facilities.

(Continued on Sheet No. 5-50)

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General Manager, Marketing and Sales

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES (Continued)**

Section No. 5  
1st Revised Sheet No. 49

7. Customer must execute an Electric Service Agreement with Company which will include:

Peak Controlled Tiered Service - Tier 1

- a. A minimum initial 10 year term of service which includes a one year trial period and a three year cancellation notice effective after the initial term of service,
- b. The Predetermined Demand Level, or the fixed Controllable Demand if Optional PDL is selected which may be revised subject to approval by Company,
- c. Minimum demand charge differential,
- d. Maximum 150 hours of interruption,
- e. Cancellation charge terms, and
- f. Control period notice.

TC  
C

Peak Controlled Tiered Service - Tier 2 and Peak Controlled Service (Closed)

- a. A minimum initial five year term of service which includes a one year trial period and a six month cancellation notice effective after the initial term of service,
- b. The Predetermined Demand Level, or the fixed Controllable Demand if Optional PDL is selected which may be revised subject to approval by Company,
- c. Minimum demand charge differential,
- d. Maximum 80 hours of interruption,
- e. Cancellation charge terms, and
- f. Control period notice.

TC  
C

8. Peak Controlled Tiered Service customers choosing the Tier 1 rate option will be subject to an additional monthly charge for a Company approved and installed two-way communications system. The system equipment allows NSP to determine remotely customer load levels and to notify customers of control periods.

9. Minimum Controllable Demand during the Company's peak season shall be 50 kW.

TC

10. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.

11. Company will determine, at a service location designated by Company, the number of services supplied. Customers requesting special facilities will be charged the additional costs incurred for such facilities.

(Continued on Sheet No. 5-50)

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President and CEO of Northern States Power Company

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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES AND PEAK CONTROLLED  
SERVICES (CLOSED) (Continued)

Section No. 5  
Original Sheet No. 50  
Relocated from MPUC No. 1 Sheet No. 5-32.1

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12. Customers choosing the predetermined demand level option requiring a fixed demand reduction will be subject to an additional charge for metering and billing when additional metering equipment is necessary. The additional charge is \$11.00 per month for an application using a single meter in close proximity to customer's service point. The additional charge for more complex applications will be based on the actual costs of the specific application.
13. Company will maintain firm demand charge rates at the General Service and General Time of Day Service levels, whichever is applicable.
14. Any customer with generating equipment which is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
15. Any load served by customer generation during Company requested control periods must be served by Company at all other times.
16. Customers selecting Peak Controlled Tiered Services will normally remain at a specific performance factor level for a minimum of one year, subject to the Company's discretion. The Company may transfer customers between performance factor levels following verification of a customer's performance, as defined in the applicable rate schedule and as specified in the customer's Electric Service Agreement. This rate contemplates that increases in summer controllable demand, which thereby affect a customer's performance factor level, will be at sufficient consumption levels to yield a July and August calendar month load factor of 34% or greater. The Company reserves the right to limit the customer's eligibility to be on a higher performance factor level due to the above restriction.

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and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RULES FOR APPLICATION OF PEAK CONTROLLED  
TIERED SERVICES (Continued)**

Section No. 5  
1st Revised Sheet No. 50

12. Customers choosing the Predetermined Demand Level option requiring a fixed demand reduction will be subject to an additional charge for metering and billing when additional metering equipment is necessary. The additional charge is \$15.00 per month for an application using a single meter in close proximity to customer's service point. The additional charge for more complex applications will be based on the actual costs of the specific application. T R
13. Company will maintain Firm Demand Charge rates at the General Service and General Time of Day Service levels, whichever is applicable. T
14. Any customer with generating equipment which is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
15. Any load served by customer generation during Company requested control periods must be served by Company at all other times.
16. Customers selecting Peak Controlled Tiered Services will normally remain at a specific Performance Factor level for a minimum of one year, subject to the Company's discretion. The Company may transfer customers between Performance Factor levels following verification of a customer's performance, as defined in the applicable rate schedule and as specified in the customer's Electric Service Agreement. This rate contemplates that increases in summer Controllable Demand, which thereby affect a customer's Performance Factor level, will be at sufficient consumption levels to yield a July and August calendar month load factor of 34% or greater. The Company reserves the right to limit the customer's eligibility to be on a higher Performance Factor level due to the above restriction. T T T T T T T

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President and CEO of Northern States Power Company

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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ENERGY CONTROLLED SERVICE (CLOSED)  
RATE CODE A26

Section No. 5  
7th Revised Sheet No. 51

AVAILABILITY

Available to any non-residential customer for general service who agrees to control demand to a predetermined level whenever required by Company. Availability is restricted to customers with a minimum controllable demand of 50 kW.

RATE

Customer Charge per Month \$50.04

Service at Secondary Voltage

Energy Charge per kWh

|                                     |            |   |
|-------------------------------------|------------|---|
| Firm On Peak Period Energy          | \$0.045557 | R |
| Firm Off Peak Period Energy         | \$0.035093 | R |
| Controllable On Peak Period Energy  | \$0.042938 | R |
| Controllable Off Peak Period Energy | \$0.034111 | R |
| Control Period Energy               | \$0.060940 | R |

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours Times the  
Sum of All On Peak Period Billing Demands,  
Not to Exceed 50% of Total kWh \$0.0070

Demand Charge per Month per kW

|                                                              | <u>Oct-May</u> | <u>Jun-Sep</u> |
|--------------------------------------------------------------|----------------|----------------|
| On Peak Period Demand                                        |                |                |
| Firm Demand                                                  | \$6.61         | \$9.26         |
| Controllable Demand                                          | \$4.09         | \$4.48         |
| Off Peak Period Demand in Excess of<br>On Peak Period Demand | \$2.35         | \$2.35         |

January - December

|                                  | <u>Per kW</u> | <u>Per kWh</u> |
|----------------------------------|---------------|----------------|
| Voltage Discounts per Month      |               |                |
| Primary Voltage                  | \$0.95        | \$0.0005       |
| Transmission Transformed Voltage | \$1.75        | \$0.0009       |
| Transmission Voltage             | \$2.35        | \$0.0013       |

INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge. N  
N  
N  
N

(Continued on Sheet No. 5-52)

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Vice President of Jurisdictional Relations

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
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Section No. 5  
8th Revised Sheet No. 51

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ENERGY CONTROLLED SERVICE (CLOSED)  
(Continued)  
RATE CODE A26

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Section No. 5  
7th Revised Sheet No. 52

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

N  
L

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

C

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIODS**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**DETERMINATION OF DEMAND**

Actual On Peak Period Demand in kW shall be the greatest 15 minute load for the on peak period during the billing month.

Adjusted On Peak Period Demand in kW for billing purposes shall be determined by dividing the actual on peak demand by the power factor expressed in percent but not more than 90%, multiplying the quotient so obtained by 90%, and rounding to the nearest whole kW.

Actual Off Peak Period Demand in kW shall be the greatest 15 minute load for the off peak period during the billing month rounded to the nearest whole kW. In no month shall the off peak period demand for billing purposes be considered as less than the current month's actual off peak period demand in kW.

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(Continued on Sheet No. 5-53)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
**(Continued)**  
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Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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ENERGY CONTROLLED SERVICE (CLOSED)

(Continued)

RATE CODE A26

Section No. 5

Original Sheet No. 53

Relocated from MPUC No. 1 Sheet No. 5-33.2

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**DETERMINATION OF DEMAND (Continued)**

Off Peak Period Demand in Excess of On Peak Period Demand in kW to be billed shall be determined by subtracting the billing on peak period demand from the actual off peak period demand only if the off peak period demand is greater.

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's adjusted on peak demand must not exceed the predetermined demand level during a control period.

Firm Demand for the billing month shall be the lesser of predetermined demand or adjusted on peak period demand, except in months when customer fails to control load to predetermined demand level when requested by Company. In these months, firm demand shall be the adjusted on peak period demand established during the control period.

Controllable Demand shall be the difference between customer's adjusted on peak period demand during the billing month and the greater of predetermined demand or firm demand, but never less than zero.

Minimum On Peak Demand to be billed each month shall not be less than the current month's adjusted on peak period demand in kW.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

**ANNUAL MINIMUM DEMAND CHARGE**

The annual minimum demand charge shall be no less than six times the average monthly firm demand charge per kW times the predetermined demand, plus six times the average monthly controllable demand charge per kW times the maximum controllable demand.

**COMPETITIVE SERVICE**

Competitive Service is available under this schedule subject to the provisions contained in the Competitive Service Rider or the Competitive Market Rider.

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(Continued on Sheet No. 5-54)

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General Manager, Marketing and Sales

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A26**

Section No. 5  
1st Revised Sheet No. 53

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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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ENERGY CONTROLLED SERVICE (CLOSED)

(Continued)

RATE CODE A26

Section No. 5

Original Sheet No. 54

Relocated from MPUC No. 1 Sheet No. 5-33.2 &  
5-33.3

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TERMS AND CONDITIONS OF SERVICE

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.
2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Customer has the responsibility of controlling own load to predetermined demand level.
5. Customer must allow Company to inspect and approve the load control installation and equipment provided by customer.
6. If controlled demand is 10,000 kW or larger, Company may require customer to:
  - a. Provide auxiliary contacts for remote indication of position of switch or circuit breaker used to control demand and wire auxiliary contacts into a connection point designated by Company,
  - b. Install the remote breaker indication equipment provided by Company, and
  - c. Provide a continuous 120 volt AC power source at the connection point for operation of the Company remote breaker indication equipment.
7. Company will endeavor to give customer one hour notice of commencement of control period, and as much additional notice as is practical. However, control period may be commenced without notice should Company determine such action is necessary.

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(Continued on Sheet No. 5-55)

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and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A26**

Section No. 5  
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Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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ENERGY CONTROLLED SERVICE (CLOSED)

(Continued)

RATE CODE A26

Section No. 5

Original Sheet No. 55

Relocated from MPUC No. 1 Sheet No. 5-33.3 &  
5-33.4

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TERMS AND CONDITIONS OF SERVICE (Continued)

8. Failure to Control Charge: Except as provided for under Control Period Energy Service described below, the following charges will apply in any month customer fails to control load to predetermined demand level:
- An additional charge of \$10.00 per kW will apply during each Company specified control period to the amount by which customer's maximum adjusted demand exceeds their predetermined demand level, and
  - Control period energy charge will apply to the energy used during the control period which is associated with the customer's controllable demand.

After three such customer failures to control load to their predetermined demand level, Company reserves the right to increase the predetermined demand level or remove customer from Energy Controlled Service (Closed) and apply the cancellation charge specified in customer's Electric Service Agreement.

9. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur at such times when:
- Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production cost,
  - Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or
  - In Company's opinion, the reliability of the system is endangered.
10. Customer shall execute an Electric Service Agreement with Company which will include:
- A minimum initial five year term of service which includes a one year trial period and a six month cancellation notice effective after the initial term of service,
  - The predetermined demand level, which may be revised subject to approval by Company,
  - Minimum demand charge differential,
  - Maximum 300 hours of interruption,
  - Cancellation charge terms, and
  - Control period notice.

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(Continued on Sheet No. 5-56)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A26**

Section No. 5  
1st Revised Sheet No. 55

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Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ENERGY CONTROLLED SERVICE (CLOSED)  
(Continued)  
RATE CODE A26

Section No. 5  
Original Sheet No. 56  
Relocated from MPUC No. 1 Sheet No. 5-33.4

**TERMS AND CONDITIONS OF SERVICE (Continued)**

11. Minimum controllable demand during the Company's peak season shall be 50 kW.
12. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
13. Company will determine, at a service location designated by Company, the number of services supplied. Customers requesting special facilities will be charged the additional costs incurred for such facilities.
14. Company will maintain firm demand charge rates for Energy Controlled Service (Closed) at the General Time of Day Service level.
15. Any customer with generating equipment which is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
16. Any load served by customer generation during Company requested control periods must be served by Company at all other times.

(Continued on Sheet No. 5-57)

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED) (Continued)**  
**RATE CODE A26**

Section No. 5  
1st Revised Sheet No. 56

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Minneapolis, Minnesota 55401  
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ENERGY CONTROLLED SERVICE (CLOSED)  
(Continued)  
RATE CODE A26

Section No. 5  
Original Sheet No. 57  
Relocated from MPUC No. 1 Sheet No. 5-33.4

### CONTROL PERIOD ENERGY SERVICE

#### AVAILABILITY

Available to Energy Controlled Service (Closed) customers for supply of controllable demand related energy during control periods. The control period energy charge will apply when the Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Control Period Energy Service will not be available when Company expects system peak load conditions or during system emergencies.

#### RATE

The control period energy charge will apply to all controllable demand related energy used during the control period.

#### TERMS AND CONDITIONS OF SERVICE

1. Control Period Energy Service will be available provided such service will not adversely affect firm service to any customer.
2. Company reserves the right to refuse or control the supply of Control Period Energy Service if its capacity is not adequate to furnish such service.
3. All other provisions of the Energy Controlled Service (Closed) rate schedule not in conflict with Control Period Energy Service shall apply.
4. Company notice of commencement of control period will include notice of availability of Control Period Energy Service.

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Northern States Power Company, a Minnesota corporation  
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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENERGY CONTROLLED SERVICE (CLOSED)**  
**(Continued)**  
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Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)  
RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

Section No. 5  
6th Revised Sheet No. 58

EXPERIMENTAL DESIGN

The experimental period will end December 31, 2004. Participation is limited to 300,000 kW, based on historical or expected average monthly on peak demand of customers. Company reserves the right to revise this rate schedule and the method for determination of hourly prices.

AVAILABILITY

Available to non-residential customers with a minimum anticipated average monthly on peak demand of 1,000 kW. The controllable service option is available to customers with a minimum controllable load of 500 kW, who agree to control load to a predetermined level whenever required by Company.

CONTRACT

Customers must contract for this service through an electric service agreement with Company. Contract period will normally be for one year, but may not extend past the experimental period.

RATE

|                                                                       |                  |   |
|-----------------------------------------------------------------------|------------------|---|
| Customer Charge per Month                                             | \$500.39         | R |
| Demand Charge per Month per kW                                        |                  |   |
| Access Demand                                                         | \$5.23           |   |
| Distribution Demand by Voltage                                        |                  |   |
| Secondary                                                             | \$2.00           |   |
| Primary                                                               | \$1.15           |   |
| Transmission Transformed                                              | \$0.50           |   |
| Transmission                                                          | \$0.00           |   |
| Energy Charge per kWh                                                 | Variable by Hour |   |
| Energy Charge Credit per Month                                        |                  |   |
| Base Year Average Monthly Credit Amount times Sales Factor Adjustment |                  |   |
| Energy Charge Voltage Discounts per kWh                               |                  |   |
| Primary                                                               | \$0.0005         |   |
| Transmission Transformed                                              | \$0.0009         |   |
| Transmission                                                          | \$0.0013         |   |

(Continued on Sheet No. 5-59)

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State Vice President – Minnesota & Dakotas

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**EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)**  
**RATE CODE A60 (FIRM) AND**  
**RATE CODE A61 (CONTROLLABLE)**

Section No. 5  
7th Revised Sheet No. 58

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EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)

(Continued)

RATE CODE A60 (FIRM) AND

RATE CODE A61 (CONTROLLABLE)

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Section No. 5  
8th Revised Sheet No. 59

**ENERGY CHARGE**

Hourly energy charges are derived from the energy charge in the General Service rate schedule, adjusted for Fuel Clause Rider revision effective December 1, 2004.

**PRICE COMMUNICATION**

Prior to 4:00 p.m. each day, Company will provide customers the hourly real-time prices effective from midnight to midnight the following day. Multiple day-ahead prices may also be provided. If Company is responsible for not providing hourly prices by the specified time, the lesser of two days of hourly prices will be applicable, as determined by the non-weighted average hourly prices for both days. In this instance, the comparison day for billing is the most recent prior day with or without an on peak period as specified in the Definition of Peak Period, whichever is applicable.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

N  
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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

C

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DEFINITION OF PEAK PERIOD**

The on peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off peak period is defined as all other hours. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment.

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(Continued on Sheet No. 5-60)

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Vice President of Jurisdictional Relations

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Minneapolis, Minnesota 55401  
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EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)  
(Continued)  
RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

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Section No. 5  
9th Revised Sheet No. 59

CANCELED

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|             |                 |                                                    |                 |          |
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| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

EXPERIMENTAL REAL TIME PRICING SERVICE  
(CLOSED) (Continued)  
RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

Section No. 5  
1<sup>ST</sup> Revised Sheet No. 60

**POWER FACTOR ADJUSTMENT**

The demand adjustment for power factor is determined by dividing actual demand by the billing month average power factor expressed in percent but not more than 90%, and multiplying the quotient so obtained by 90%.

**BASE YEAR**

The 12 months immediately prior to service with this rate. Load characteristics from the base year period may be adjusted if not representative of expected loads, subject to Company approval.

**SALES FACTOR ADJUSTMENT**

The sales factor adjustment is determined by dividing customer's annual kWh sales from the preceding contract year by customer's annual kWh sales from the base year. The sales factor adjustment is 1.0 during customer's initial contract year.

**DETERMINATION OF DEMAND**

Actual On Peak Period Demand in kW is the greatest 15 minute on peak period load during the billing month.

Access Demand in kW is customer's actual on peak period demand from the corresponding month in the base year, adjusted for the current billing month's power factor, then multiplied by the sales factor adjustment. Access demand is rounded to the nearest whole kW for billing.

Distribution Demand in kW shall be the greatest 15 minute load that occurred during the past 12 months, including the month for which the bill is rendered. Distribution demand is adjusted for power factor and rounded to the nearest whole kW. Additional demand that may result from customer's use of contracted standby or supplemental capacity is not included in the determination of distribution demand.

**CONTROLLABLE SERVICE OPTION**

Controllable Service Credit is the applicable controllable demand credit times the monthly controllable demand.

Controllable Demand Credit per Month per kW

|                             | <u>Jun-Sep</u> | <u>Other Months</u> |
|-----------------------------|----------------|---------------------|
| Level A: < 65% PF           | \$4.30         | \$1.65              |
| Level B: ≥ 65% and < 85% PF | \$4.65         | \$2.00              |
| Level C: ≥ 85% PF           | \$5.00         | \$2.35              |

(Continued on Sheet No. 5-61)

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State Vice President, Minnesota

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**EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A60 (FIRM) AND**  
**RATE CODE A61 (CONTROLLABLE)**

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Section No. 5  
2nd Revised Sheet No. 60

**CANCELED**

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|             |                 |                                                    |                 |          |
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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)

(Continued)

RATE CODE A60 (FIRM) AND

RATE CODE A61 (CONTROLLABLE)

---

Section No. 5

1<sup>st</sup> Revised Sheet No. 61

CONTROLLABLE SERVICE OPTION (Continued)

Controllable Demand in kW is the difference between access demand for the billing month and predetermined demand.

Predetermined Demand shall be specified and agreed to by the customer and Company. Customer's demand, adjusted for power factor, must not exceed the predetermined demand level (PDL) during a control period.

Performance Factor (PF) is defined in percentage terms as the average of the July and August calendar month unadjusted maximum controllable demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, divided by the unadjusted maximum annual controllable demand. Customer's base year billing history or representative load characteristics will be used to determine customer's performance factor. Customers will normally remain at a specific performance factor level for a minimum of one year, subject to the Company's discretion. The Company reserves the right to determine customer's eligibility for performance factor levels and may transfer customers between levels following verification of a customer's performance.

Controllable Service Terms and Conditions

1. Company will endeavor to give customer one hour notice of commencement of control period.
2. An additional charge of \$8.00 per kW for failure to control will apply during each Company specified control period to the amount that customer's maximum power factor adjusted on peak demand exceeds their predetermined demand level.
3. The duration and frequency of control periods shall be at the discretion of Company. Control periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or when in Company's opinion, the reliability of the system is endangered. Customers will be separated into two groups by Company with control periods applicable to one or both groups. Customer groups are determined by geographical location and equivalent total controllable load. Control periods will apply to both customer groups at times of the highest forecast system load levels. Control periods at other high load times may apply to only one of the customer groups. Customer groups will be defined as subject to control periods on either even or odd numbered days.

(Continued on Sheet No. 5-62)

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State Vice President, Minnesota

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Minneapolis, Minnesota 55401  
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**EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A60 (FIRM) AND**  
**RATE CODE A61 (CONTROLLABLE)**

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Section No. 5  
2nd Revised Sheet No. 61

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EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)  
(Continued)  
RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

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Section No. 5  
1<sup>st</sup> Revised Sheet No. 62

**CONTROLLABLE SERVICE OPTION (Continued)**

Controllable Service Terms and Conditions (Continued)

4. Maximum duration of all control periods specified by Company will be 80 hours per year.
5. Customer may revise predetermined demand level subject to approval by Company.
6. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
7. Any customer with generating equipment that is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
8. Any load served by customer generation during Company requested control periods must normally be served by Company.

**COMPETITIVE SERVICE**

Competitive service is available under this schedule subject to the provisions contained in the Competitive Service Rider. Competitive service is also available with the controllable service option under this schedule subject to the provisions contained in the Competitive Market Rider.

**STANDBY SERVICE**

Standby service is available under this schedule subject to the provisions contained in the Standby Service Rider.

**TERMS AND CONDITIONS OF SERVICE**

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

(Continued on Sheet No. 5-63)

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|             |               |                                 |                 |          |
|-------------|---------------|---------------------------------|-----------------|----------|
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**EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)**  
**(Continued)**  
**RATE CODE A60 (FIRM) AND**  
**RATE CODE A61 (CONTROLLABLE)**

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Section No. 5  
2nd Revised Sheet No. 62

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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)  
(Continued)

Section No. 5  
1<sup>st</sup> Revised Sheet No. 63

RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

TERMS AND CONDITIONS OF SERVICE (Continued)

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Company will provide, install, and maintain equipment necessary to communicate real-time prices to customers. Customer will provide for a dedicated telephone line service approved by Company.
5. Customer will pay a cancellation charge for contract cancellation prior to the end of a contract period. The cancellation charge is \$2,000.00, plus the difference between customer's bills recalculated using customer's previous rate schedule and this rate schedule if such difference is greater than zero.

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State Vice President, Minnesota

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Minneapolis, Minnesota 55401  
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EXPERIMENTAL REAL TIME PRICING SERVICE (CLOSED)  
(Continued)  
RATE CODE A60 (FIRM) AND  
RATE CODE A61 (CONTROLLABLE)

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Section No. 5  
2nd Revised Sheet No. 63

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By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**REAL TIME PRICING SERVICE**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
 1st Revised Sheet No. 64

**AVAILABILITY**

Available for an initial experimental period ending December 31, 2006, to customers with a minimum peak demand of 1,000 kW. Availability may be restricted to limit total customer peak demand to a maximum of 150,000 kW. The controllable service option requires a minimum controllable load of 500 kW.

**RATE**

Customer Charge per Month \$300.36

Demand Charge per Month per kW  
 Contract Demand \$5.23

Distribution Demand by Voltage

|           |         |                          |              |
|-----------|---------|--------------------------|--------------|
| Secondary | Primary | Transmission Transformed | Transmission |
| \$2.00    | \$1.15  | \$0.50                   | \$0.00       |

| Energy Charge per kWh | Day-Type  |           |           |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                       | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         |
| 12 a.m.-6 a.m.        | \$0.03685 | \$0.03185 | \$0.02985 | \$0.02805 | \$0.02645 | \$0.02535 | \$0.02485 | \$0.02385 |
| 6 a.m.- 9 a.m.        | \$0.05885 | \$0.04885 | \$0.04085 | \$0.04175 | \$0.03965 | \$0.03545 | \$0.03015 | \$0.02595 |
| 9 a.m.-12 p.m.        | \$0.17685 | \$0.10685 | \$0.07085 | \$0.05445 | \$0.04495 | \$0.03865 | \$0.03225 | \$0.02805 |
| 12 p.m.- 6 p.m.       | \$0.28685 | \$0.18685 | \$0.10185 | \$0.06185 | \$0.04495 | \$0.03865 | \$0.03225 | \$0.02805 |
| 6 p.m.- 9 p.m.        | \$0.20685 | \$0.14685 | \$0.08725 | \$0.05555 | \$0.04495 | \$0.03865 | \$0.03225 | \$0.02805 |
| 9 p.m.-12 a.m.        | \$0.05885 | \$0.04885 | \$0.04385 | \$0.03865 | \$0.03225 | \$0.03015 | \$0.02735 | \$0.02595 |

Day-type energy charges are subject to the Stability Factor Adjustment provision.

Annual Day-Type Distribution

|         |   |   |    |    |     |     |     |     |
|---------|---|---|----|----|-----|-----|-----|-----|
| Normal  | 5 | 5 | 10 | 35 | 60  | 110 | 60  | 80  |
| Maximum | 8 | 8 | 16 | 50 | n/a | n/a | n/a | n/a |

Limited Energy Surcharge per kWh \$0.1000

All kWh during peak period hours in excess of Contract Demand

Energy Charge Credit per Month \$0.0060

All kWh in excess of 400 times Contract Demand, not to exceed 50% of total kWh

Energy Charge Voltage Discount per kWh

|          |                          |              |
|----------|--------------------------|--------------|
| Primary  | Transmission Transformed | Transmission |
| \$0.0005 | \$0.0009                 | \$0.0013     |

(Continued on Sheet No. 5-65)

|                            |                                            |                          |
|----------------------------|--------------------------------------------|--------------------------|
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|                            | Vice President of Jurisdictional Relations |                          |
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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**REAL TIME PRICING SERVICE**

**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5

2nd Revised Sheet No. 64

**AVAILABILITY**

Available for an initial experimental period ending December 31, 2006, to customers with a minimum peak demand of 1,000 kW. Availability may be restricted to limit total customer peak demand to a maximum of 150,000 kW. The controllable service option requires a minimum controllable load of 500 kW.

**RATE**

|                                                                                   |          |         |          |         |         |                          |              |         |   |
|-----------------------------------------------------------------------------------|----------|---------|----------|---------|---------|--------------------------|--------------|---------|---|
| Customer Charge per Month                                                         | \$300.00 |         |          |         |         |                          |              |         | R |
| Demand Charge per Month per kW                                                    |          |         |          |         |         |                          |              |         |   |
| Contract Demand                                                                   | \$5.80   |         |          |         |         |                          |              |         | R |
| Distribution Demand by Voltage                                                    |          |         |          |         |         |                          |              |         |   |
| Secondary                                                                         | \$1.90   |         | Primary  | \$1.10  |         | Transmission Transformed | Transmission |         |   |
|                                                                                   |          |         |          |         |         | \$0.45                   | \$0.00       |         | R |
| Energy Charge per kWh                                                             | Day-Type |         |          |         |         |                          |              |         |   |
|                                                                                   | 1        | 2       | 3        | 4       | 5       | 6                        | 7            | 8       |   |
| 12 a.m.-6 a.m.                                                                    | 0.02243  | 0.01573 | 0.01313  | 0.01141 | 0.01070 | 0.00927                  | 0.00847      | 0.00704 | R |
| 6 a.m.- 9 a.m.                                                                    | 0.05153  | 0.03823 | 0.02773  | 0.02961 | 0.02820 | 0.02257                  | 0.01547      | 0.00984 | R |
| 9 a.m.-12 p.m.                                                                    | 0.16596  | 0.08796 | 0.05013  | 0.03709 | 0.02527 | 0.01776                  | 0.01226      | 0.01078 | R |
| 12 p.m.- 6 p.m.                                                                   | 0.28296  | 0.18496 | 0.08913  | 0.04689 | 0.02527 | 0.01776                  | 0.01226      | 0.01078 | R |
| 6 p.m.- 9 p.m.                                                                    | 0.20496  | 0.12696 | 0.06913  | 0.03859 | 0.02527 | 0.01776                  | 0.01226      | 0.01078 | R |
| 9 p.m.-12 a.m.                                                                    | 0.05153  | 0.03823 | 0.03163  | 0.02551 | 0.01840 | 0.01557                  | 0.01177      | 0.00984 | R |
| Day-type energy charges are subject to the Stability Factor Adjustment provision. |          |         |          |         |         |                          |              |         |   |
| Annual Day-Type Distribution                                                      |          |         |          |         |         |                          |              |         |   |
| Normal                                                                            | 5        | 5       | 10       | 35      | 60      | 110                      | 60           | 80      |   |
| Maximum                                                                           | 8        | 8       | 16       | 50      | n/a     | n/a                      | n/a          | n/a     |   |
| Limited Energy Surcharge per kWh                                                  | \$0.1120 |         |          |         |         |                          |              |         | R |
| All kWh during peak period hours in excess of Contract Demand                     |          |         |          |         |         |                          |              |         | R |
| Energy Charge Credit per Month                                                    | \$0.0077 |         |          |         |         |                          |              |         |   |
| All kWh in excess of 400 times Contract Demand, not to exceed 50% of total kWh    |          |         |          |         |         |                          |              |         |   |
| Energy Charge Voltage Discount per kWh                                            |          |         |          |         |         |                          |              |         |   |
|                                                                                   |          |         | Primary  |         |         | Transmission Transformed | Transmission |         |   |
|                                                                                   |          |         | \$0.0007 |         |         | \$0.0011                 | \$0.0016     |         | R |

(Continued on Sheet No. 5-65)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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|             |                 | President and CEO of Northern States Power Company |                 |          |
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REAL TIME PRICING SERVICE  
RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)

Section No. 5  
6th Revised Sheet No. 65

#### DAY-TYPE

Separate energy charges are defined for each of eight day-types. Company will normally designate the applicable day-type for each day by 4:00 p.m. of the preceding day. If Company has not designated the applicable day by 4:00 p.m., the day-type will be the same as the last designated day-type, unless Company later designates a lower cost day-type.

#### CONTRACT

Customers must contract for this service through an Electric Service Agreement with Company. Contract period will normally be for one year, but may not extend past December 31, 2006.

#### FUEL CLAUSE

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

#### INTERIM RATE ADJUSTMENT

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

#### RESOURCE ADJUSTMENT

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

#### ENVIRONMENTAL IMPROVEMENT RIDER

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

#### SURCHARGE

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

#### LATE PAYMENT CHARGE

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

#### PEAK PERIOD HOURS DEFINITION

Peak period hours are the nine hours between 9:00 a.m. and 6:00 p.m. for day-types 1, 2, 3, 4, 5, and 6. No peak period hours are applicable for day-types 7 and 8.

(Continued on Sheet No. 5-66)

|             |                 |                                            |                 |          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**REAL TIME PRICING SERVICE (Continued)**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
7th Revised Sheet No. 65

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**DAY-TYPE**

Separate energy charges are defined for each of eight day-types. Company will normally designate the applicable day-type for each day by 4:00 p.m. of the preceding day. If Company has not designated the applicable day by 4:00 p.m., the day-type will be the same as the last designated day-type, unless Company later designates a lower cost day-type.

**CONTRACT**

Customers must contract for this service through an Electric Service Agreement with Company. Contract period will normally be for one year, but may not extend past December 31, 2006.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**PEAK PERIOD HOURS DEFINITION**

Peak period hours are the nine hours between 9:00 a.m. and 6:00 p.m. for day-types 1, 2, 3, 4, 5, and 6. No peak period hours are applicable for day-types 7 and 8.

D  
N  
N

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(Continued on Sheet No. 5-65.1)

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President and CEO of Northern States Power Company

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Minneapolis, Minnesota 55401  
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**REAL TIME PRICING SERVICE (Continued)**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
8th Revised Sheet No. 65

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**DAY-TYPE**

Separate energy charges are defined for each of eight day-types. Company will normally designate the applicable day-type for each day by 4:00 p.m. of the preceding day. If Company has not designated the applicable day by 4:00 p.m., the day-type will be the same as the last designated day-type, unless Company later designates a lower cost day-type.

**CONTRACT**

Customers must contract for this service through an Electric Service Agreement with Company. Contract period will normally be for one year, but may not extend past December 31, 2006.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**PEAK PERIOD HOURS DEFINITION**

Peak period hours are the nine hours between 9:00 a.m. and 6:00 p.m. for day-types 1, 2, 3, 4, 5, and 6. No peak period hours are applicable for day-types 7 and 8.

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(Continued on Sheet No. 5-65.1)

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**REAL TIME PRICING SERVICE**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
Original Sheet No. 65.1

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**STABILITY FACTOR ADJUSTMENT**

Day-type energy charges will be adjusted by a stability factor to compensate for departures from the normal distribution of day-types. The average day-type energy charge, weighted with system loads, will be determined for actual and normal day-types. Stability factors of no more than five percent will be implemented following an annualized differential that exceeds two percent, and discontinued after the differential for the preceding 12 months is less than one percent. Customers will be notified of the effective date and amount of any stability factor adjustment before that adjustment is implemented, changed or discontinued. No stability factor adjustment will apply to customers receiving this service for fewer months than used to determine the adjustment.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment. Company may require customer to install Company-approved equipment to maintain a power factor of not less than 90%.

(Continued on Sheet No. 5-66)

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**REAL TIME PRICING SERVICE (Continued)**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
Original Sheet No. 65.1

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**STABILITY FACTOR ADJUSTMENT**

Day-type energy charges will be adjusted by a stability factor to compensate for departures from the normal distribution of day-types. The average day-type energy charge, weighted with system loads, will be determined for actual and normal day-types. Stability factors of no more than five percent will be implemented following an annualized differential that exceeds two percent, and discontinued after the differential for the preceding 12 months is less than one percent. Customers will be notified of the effective date and amount of any stability factor adjustment before that adjustment is implemented, changed or discontinued. No stability factor adjustment will apply to customers receiving this service for fewer months than used to determine the adjustment.

**POWER FACTOR**

The power factor for the month shall be determined by permanently installed metering equipment. Company may require customer to install Company-approved equipment to maintain a power factor of not less than 90%.

(Continued on Sheet No. 5-66)

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |





REAL TIME PRICING SERVICE  
RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)

Section No. 5  
1st Revised Sheet No. 66

#### POWER FACTOR

The power factor for the month shall be determined by permanently installed metering equipment. Company may require customer to install Company-approved equipment to maintain a power factor of not less than 90%.

#### DETERMINATION OF DEMAND

Contract Demand in kW is designated by customer and is fixed for no less than 12 months. Customers are allowed a maximum of one opportunity to revise to their contract demand level in any continuous 12-month period. Contract demand in any billing month may not be less than the actual or expected average kW load during peak period hours of the billing month.

Distribution Demand in kW shall be the greatest 15 minute load that occurred during the past 12 months, including the current billing month, rounded to the nearest whole kW. Additional demand that may result from customer's use of contracted standby or supplemental capacity is not included in the determination of distribution demand.

#### CONTROLLABLE SERVICE OPTION

The controllable service option is available to customers that agree to control a minimum load of 500 kW to a predetermined level whenever required by Company. The applicable monthly controllable demand credit is applied customer's monthly controllable demand. The applicable limited energy charge per kWh replaces the charge for firm service.

| Controllable Demand Credit per Month per kW |         |              | Limited Energy Surcharge per kWh |
|---------------------------------------------|---------|--------------|----------------------------------|
|                                             | Jun-Sep | Other Months |                                  |
| Level A: < 65% PF                           | \$4.30  | \$1.65       | \$0.0700                         |
| Level B: ≥ 65% and < 85% PF                 | \$4.65  | \$2.00       | \$0.0500                         |
| Level C: > 85% PF                           | \$5.00  | \$2.35       | \$0.0400                         |

Controllable Demand in kW is the difference between Contract Demand for the billing month and Predetermined Demand Level.

Predetermined Demand Level shall be specified and agreed to by the customer and Company, and may not exceed the Contract Demand. Customer's demand must not exceed the predetermined demand level (PDL) during a control period.

Performance Factor (PF) is defined in percentage terms as the average of the July and August calendar month maximum Controllable Demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, divided by the maximum annual Controllable Demand. Customer's representative load characteristics will be used to determine customer's performance factor. Company reserves the right to determine customer's eligibility for performance factor levels and may transfer customers between levels following verification of a customer's performance.

(Continued on Sheet No. 5-67)

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Vice President of Jurisdictional Relations

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Order Date: 01-04-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**REAL TIME PRICING SERVICE (Continued)**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
2nd Revised Sheet No. 66

D

**DETERMINATION OF DEMAND**

Contract Demand in kW is designated by customer and is fixed for no less than 12 months. Customers are allowed a maximum of one opportunity to revise to their contract demand level in any continuous 12-month period. Contract demand in any billing month may not be less than the actual or expected average kW load during peak period hours of the billing month.

Distribution Demand in kW shall be the greatest 15 minute load that occurred during the past 12 months, including the current billing month, rounded to the nearest whole kW. Additional demand that may result from customer's use of contracted standby or supplemental capacity is not included in the determination of distribution demand.

**CONTROLLABLE SERVICE OPTION**

The controllable service option is available to customers that agree to control a minimum load of 500 kW to a predetermined level whenever required by Company. The applicable monthly controllable demand credit is applied customer's monthly controllable demand. The applicable limited energy charge per kWh replaces the charge for firm service.

| Controllable Demand Credit per Month per kW |         |              | Limited Energy Surcharge per kWh |
|---------------------------------------------|---------|--------------|----------------------------------|
|                                             | Jun-Sep | Other Months |                                  |
| Level A: < 65% PF                           | \$4.30  | \$1.65       | \$0.0790                         |
| Level B: ≥ 65% and < 85% PF                 | \$4.65  | \$2.00       | \$0.0560                         |
| Level C: ≥ 85% PF                           | \$5.00  | \$2.35       | \$0.0450                         |

Controllable Demand in kW is the difference between Contract Demand for the billing month and Predetermined Demand Level.

Predetermined Demand Level shall be specified and agreed to by the customer and Company, and may not exceed the Contract Demand. Customer's demand must not exceed the predetermined demand level (PDL) during a control period.

Performance Factor (PF) is defined in percentage terms as the average of the July and August calendar month maximum Controllable Demand occurring from 1:00 p.m. to 7:00 p.m. on weekdays, divided by the maximum annual Controllable Demand. Customer's representative load characteristics will be used to determine customer's performance factor. Company reserves the right to determine customer's eligibility for performance factor levels and may transfer customers between levels following verification of a customer's performance.

(Continued on Sheet No. 5-67)

Date Filed: 11-02-05

By: Cynthia L. Lesher  
President and CEO of Northern States Power Company

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Northern States Power Company  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

REAL TIME PRICING SERVICE  
RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)

Section No. 5  
Original Sheet No. 67

Controllable Service Terms and Conditions

1. Company will endeavor to give customer one hour notice of commencement of control period.
2. An additional charge of \$8.00 per kW for failure to control will apply during each Company specified control period to the amount that customer's maximum power factor adjusted on peak demand exceeds their predetermined demand level.
3. The duration and frequency of control periods shall be at the discretion of Company. Control periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or when in Company's opinion, the reliability of the system is endangered. Customers will be separated into two groups by Company with control periods applicable to one or both groups. Customer groups are determined by geographical location and equivalent total controllable load. Control periods will apply to both customer groups at times of the highest forecast system load levels. Control periods at other high load times may apply to only one of the customer groups. Customer groups will be defined as subject to control periods on either even or odd numbered days.
4. Maximum duration of all control periods specified by Company will be 80 hours per year.
5. Customer may revise predetermined demand level subject to approval by Company.
6. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
7. Any customer with generating equipment that is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
8. Any load served by customer generation during Company requested control periods must normally be served by Company.

(Continued on Sheet No. 5-68)

Date Filed: 10-01-03

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**REAL TIME PRICING SERVICE (Continued)**  
**RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)**

Section No. 5  
Original Sheet No. 67

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Controllable Service Terms and Conditions

1. Company will endeavor to give customer one hour notice of commencement of control period.
2. An additional charge of \$8.00 per kW for failure to control will apply during each Company specified control period to the amount that customer's maximum power factor adjusted on peak demand exceeds their predetermined demand level.
3. The duration and frequency of control periods shall be at the discretion of Company. Control periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or when in Company's opinion, the reliability of the system is endangered. Customers will be separated into two groups by Company with control periods applicable to one or both groups. Customer groups are determined by geographical location and equivalent total controllable load. Control periods will apply to both customer groups at times of the highest forecast system load levels. Control periods at other high load times may apply to only one of the customer groups. Customer groups will be defined as subject to control periods on either even or odd numbered days.
4. Maximum duration of all control periods specified by Company will be 80 hours per year.
5. Customer may revise predetermined demand level subject to approval by Company.
6. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
7. Any customer with generating equipment that is operated in parallel with Company must comply with all requirements associated with parallel operations as specified in the General Rules and Regulations of the Company.
8. Any load served by customer generation during Company requested control periods must normally be served by Company.

(Continued on Sheet No. 5-68)

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
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REAL TIME PRICING SERVICE  
RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)

Section No. 5  
Original Sheet No. 68

#### STANDBY SERVICE

Standby service is available under this schedule subject to the provisions contained in the Standby Service Rider.

#### TERMS AND CONDITIONS OF SERVICE

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Company will provide, install, and maintain equipment necessary to communicate real-time prices to customers. Customer will provide for a dedicated telephone line service approved by Company.
5. Customer will pay a cancellation charge for contract cancellation prior to the end of a contract period. The cancellation charge is \$1,000.00, plus the difference between customer's bills recalculated using customer's previous rate schedule and this rate schedule if such difference is greater than zero.

Date Filed: 10-01-03

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 02-09-04

Docket No. E002/M-03-1569

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

REAL TIME PRICING SERVICE (Continued)  
RATE CODE: A62 (FIRM), A63 (CONTROLLABLE)

Section No. 5  
Original Sheet No. 68

#### STANDBY SERVICE

Standby service is available under this schedule subject to the provisions contained in the Standby Service Rider.

#### TERMS AND CONDITIONS OF SERVICE

1. Alternating current service is provided at the following nominal voltages:
  - a. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts,
  - b. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts,
  - c. Transmission Transformed Voltage: Three phase from 2,400 volts up to but not including 69,000 volts, where service is provided at the Company's disconnecting means of a distribution substation transformer, or
  - d. Transmission Voltage: Three phase at 69,000 volts or higher.

Service voltage available in any given case is dependent upon voltage and capacity of Company lines in vicinity of customer's premises.

2. Transmission Transformed Service is available only to customers served by an exclusively dedicated distribution feeder. Customer will be responsible for the cost of all facilities necessary to interconnect at the Company's disconnecting means of a distribution substation transformer.
3. Transmission Service is available at transmission voltage, subject to the terms and conditions contained in the Company's General Rules and Regulations, Section 5.1(B).
4. Company will provide, install, and maintain equipment necessary to communicate real-time prices to customers. Customer will provide for a dedicated telephone line service approved by Company.
5. Customer will pay a cancellation charge for contract cancellation prior to the end of a contract period. The cancellation charge is \$1,000.00, plus the difference between customer's bills recalculated using customer's previous rate schedule and this rate schedule if such difference is greater than zero.

Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

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Order Date: 09-01-06

**STREET LIGHTING SYSTEM SERVICE**  
**RATE CODE A30**

Section No. 5  
10th Revised Sheet No. 74

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by High Pressure Sodium (HPS) or Metal Halide electric lamps in luminaires supported on poles, where the facilities for this service are furnished by Company. Underground Service under this schedule is limited to areas having a Company owned underground electric distribution system.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate Per Luminaire</u> |                    |                               |                        |
|----------------------------|-----------------------------------|--------------------|-------------------------------|------------------------|
|                            | <u>Overhead</u>                   | <u>Underground</u> | <u>Decorative Underground</u> | <u>Purchase Option</u> |
| 70W High Pressure Sodium   | \$8.98                            | \$14.68            | --                            | --                     |
| 100W High Pressure Sodium  | \$9.22                            | \$15.12            | \$19.57                       | \$5.82                 |
| 150W High Pressure Sodium  | \$10.65                           | \$17.20            | \$21.35                       | \$6.95                 |
| 250W High Pressure Sodium  | \$14.67                           | \$20.82            | \$25.12                       | \$9.32                 |
| 400W High Pressure Sodium  | \$18.93                           | \$24.23            | \$28.68                       | \$13.18                |
| 175W Metal Halide          | \$13.17                           | \$20.97            | \$25.66                       | \$9.37                 |
| 250W Metal Halide          | \$16.68                           | \$23.48            | \$27.88                       | \$10.88                |
| 400W Metal Halide          | \$20.88                           | \$26.63            | \$31.03                       | \$14.03                |
| 1,000W Metal Halide        | \$31.63                           | \$38.38            | \$42.78                       | \$25.78                |

**PURCHASE OPTION SURCHARGE**

A monthly surcharge per luminaire of 0.2% applies to the amount the purchase price exceeds \$1,200.

**ENERGY CREDITS**

A merger credit of \$0.000381 and property tax credit of \$0.000507 shall be applied per kWh.

**INTERIM RATE ADJUSTMENT**

A 7.25% adjustment will be applied to each bill after any applicable Customer Charge, Energy Charge and any of the following: Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discounts, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No 5-74.1)

|             |                 |                                            |                 |          |
|-------------|-----------------|--------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Kent T. Larson                         | Effective Date: | 01-01-06 |
|             |                 | Vice President of Jurisdictional Relations |                 |          |
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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING SYSTEM SERVICE**  
**RATE CODE A30**

Section No. 5  
11th Revised Sheet No. 74

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by High Pressure Sodium (HPS) or Metal Halide electric lamps in luminaires supported on poles, where the facilities for this service are furnished by Company. Underground Service under this schedule is limited to areas having a Company owned underground electric distribution system.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate Per Luminaire</u> |                    |                               |         | <u>Pre-Pay Option</u> |
|----------------------------|-----------------------------------|--------------------|-------------------------------|---------|-----------------------|
|                            | <u>Overhead</u>                   | <u>Underground</u> | <u>Decorative Underground</u> |         |                       |
| 70W High Pressure Sodium   | \$8.90                            | \$16.03            | —                             | —       |                       |
| 100W High Pressure Sodium  | \$9.30                            | \$16.43            | \$22.32                       | \$6.09  | R                     |
| 150W High Pressure Sodium  | \$9.80                            | \$16.88            | \$24.19                       | \$6.91  | R                     |
| 200W High Pressure Sodium* | \$11.77                           | —                  | —                             | —       | TR                    |
| 250W High Pressure Sodium  | \$12.28                           | \$19.07            | \$25.60                       | \$8.45  | R                     |
| 400W High Pressure Sodium  | \$15.38                           | \$21.16            | \$27.04                       | \$10.92 | R                     |
| 175W Metal Halide          | \$14.30                           | \$22.49            | \$27.04                       | \$9.77  | R                     |

\*Closed to new customers

**PRE-PAY OPTION SURCHARGE**

A monthly surcharge per luminaire of 0.2% applies to the amount the purchase price exceeds \$1,200.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No 5-74.1)

|                            |                                                    |                          |
|----------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 11-02-05       | By: Cynthia L. Leshner                             | Effective Date: 02-01-07 |
|                            | President and CEO of Northern States Power Company |                          |
| Docket No. E002/GR-05-1428 |                                                    | Order Date: 09-01-06     |



Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING SYSTEM SERVICE (Continued)**  
**RATE CODE A30**

Section No. 5  
1st Revised Sheet No. 74.1

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING SYSTEM SERVICE (Continued)**  
**RATE CODE A30**

Section No. 5  
2nd Revised Sheet No. 74.1

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

N

N

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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Date Filed: 11-02-05

By: Cynthia L. Leshar

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING SYSTEM SERVICE (Continued)**  
**RATE CODE A30**

Section No. 5  
3rd Revised Sheet No. 74.1

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

T

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
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**STREET LIGHTING SYSTEM SERVICE (CLOSED)**  
**RATE CODE A31**

Section No. 5  
10th Revised Sheet No. 75

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**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps in luminaires supported on wood poles, where the facilities for this service are furnished by Company. Service is limited to existing installations being served under this schedule.

**RATE**

| <u>Designation of Lamp</u> | <u>Number of Lamps<br/>per Luminaire</u> | <u>Monthly Rate per Luminaire</u><br><u>Overhead</u> |
|----------------------------|------------------------------------------|------------------------------------------------------|
| 200W High Pressure Sodium  | 1                                        | \$13.22                                              |

**ENERGY CREDITS**

A merger credit of \$0.000381 and property tax credit of \$0.000507 shall be applied per kWh.

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING SYSTEM SERVICE (CLOSED)**  
**RATE CODE A31**

Section No. 5  
11th Revised Sheet No. 75

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**CANCELED**

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

STREET LIGHTING ENERGY SERVICE  
RATE CODE A32

Section No. 5  
10th Revised Sheet No. 76

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**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns Company approved ornamental street lighting system complete with standards, luminaires with globes, lamps, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's facilities as designated by Company. Availability to new lighting systems is restricted to lights maintained by Company.

**RATE**

| <u>Designation of Lamp</u>  | <u>Monthly Rate per Luminaire</u> |
|-----------------------------|-----------------------------------|
| 100W Mercury                | \$2.59                            |
| 175W Mercury                | \$3.82                            |
| 250W Mercury                | \$5.12                            |
| 400W Mercury                | \$8.18                            |
| 700W Mercury                | \$13.90                           |
| 1,000W Mercury              | \$19.41                           |
| 50W High Pressure Sodium    | \$1.38                            |
| 70W High Pressure Sodium    | \$1.68                            |
| 100W High Pressure Sodium   | \$2.32                            |
| 150W High Pressure Sodium   | \$3.30                            |
| 200W High Pressure Sodium   | \$4.40                            |
| 250W High Pressure Sodium   | \$5.72                            |
| 400W High Pressure Sodium   | \$8.63                            |
| 750W High Pressure Sodium   | \$15.30                           |
| 1,000W High Pressure Sodium | \$19.92                           |
| 55W Low Pressure Sodium     | \$1.58                            |
| 1,000W Metal Halide         | \$19.88                           |

**ENERGY CREDITS**

A merger credit of \$0.000381 and property tax credit of \$0.000507 shall be applied per kWh.

(Continued on Sheet No. 5-77)

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Date Filed: 11-02-05

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING ENERGY SERVICE  
RATE CODE A32**

Section No. 5  
11th Revised Sheet No. 76

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns Company approved ornamental street lighting system complete with standards, luminaires with globes, lamps, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's facilities as designated by Company. Availability to new lighting systems is restricted to lights maintained by Company.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate per Luminaire</u> |
|----------------------------|-----------------------------------|
| 100W Mercury               | \$1.83                            |
| 175W Mercury               | \$2.93                            |
| 250W Mercury               | \$4.13                            |
| 400W Mercury               | \$6.65                            |
| 700W Mercury               | \$11.33                           |
| 1,000W Mercury             | \$15.93                           |
| 50W High Pressure Sodium   | \$1.14                            |
| 70W High Pressure Sodium   | \$1.48                            |
| 100W High Pressure Sodium  | \$2.00                            |
| 150W High Pressure Sodium  | \$2.77                            |
| 200W High Pressure Sodium  | \$3.73                            |
| 250W High Pressure Sodium  | \$4.74                            |
| 400W High Pressure Sodium  | \$7.26                            |
| 750W High Pressure Sodium  | \$12.10                           |

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(Continued on Sheet No. 5-77)

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|----------------------------------------------------|------------------------|--------------------------|
| Date Filed: 11-02-05                               | By: Cynthia L. Leshner | Effective Date: 02-01-07 |
| President and CEO of Northern States Power Company |                        |                          |
| Docket No. E002/GR-05-1428                         | Order Date: 09-01-06   |                          |

**STREET LIGHTING ENERGY SERVICE (Continued)**  
**RATE CODE A32**

Section No. 5  
2nd Revised Sheet No. 77

---

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

---

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING ENERGY SERVICE (Continued)**  
**RATE CODE A32**

Section No. 5  
3rd Revised Sheet No. 77

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In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING ENERGY SERVICE (Continued)**  
**RATE CODE A32**

Section No. 5  
4th Revised Sheet No. 77

---

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

T

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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Date Filed: 08-01-06

By: Cynthia L. Leshner

Effective Date: 05-01-07

President and CEO of Northern States Power Company

Docket No. E002/M-06-1505

Order Date: 03-29-07

**STREET LIGHTING ENERGY SERVICE - METERED**  
**RATE CODE A34**

Section No. 5  
10th Revised Sheet No. 78

---

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns and maintains an ornamental street lighting system complete with standards, luminaires with globes, lamps, photocells, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's meter as designated by Company.

**RATE**

Customer Charge per Meter per Month \$7.00

Energy Charge per kWh \$0.051616

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**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000507 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

---

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

---

**STREET LIGHTING ENERGY SERVICE - METERED**  
**RATE CODE A34**

Section No. 5  
11th Revised Sheet No. 78

---

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns and maintains an ornamental street lighting system complete with standards, luminaires with globes, lamps, photocells, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's meter as designated by Company.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

Customer Charge per Meter per Month \$8.00

Energy Charge per kWh \$0.041140

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

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(Continued on Sheet No. 78.1)

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING ENERGY SERVICE - METERED  
RATE CODE A34**

Section No. 5  
12th Revised Sheet No. 78

**AVAILABILITY**

Available for year-round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns and maintains an ornamental street lighting system complete with standards, luminaires with globes, lamps, photocells, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's meter as designated by Company.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

Customer Charge per Meter per Month \$8.00

Energy Charge per kWh \$0.041140

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 78.1)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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STREET LIGHTING ENERGY SERVICE - METERED  
RATE CODE A34

Section No. 5  
Original Sheet No. 78.1

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#### CONDITIONS OF SERVICE

The customer owns and maintains ornamental street lighting system including underground cables, posts, lamps, ballasts, photocells, and glassware. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule. Company furnishes energy only at central metered distribution points designated by Company. The daily operating schedule of the lamps shall be from approximately one-half hour after sunset until one-half hour before sunrise.

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STREET LIGHTING ENERGY SERVICE - METERED (Continued)**  
**RATE CODE A34**

Section No. 5  
Original Sheet No. 78.1

---

**CONDITIONS OF SERVICE**

The customer owns and maintains ornamental street lighting system including underground cables, posts, lamps, ballasts, photocells, and glassware. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule. Company furnishes energy only at central metered distribution points designated by Company. The daily operating schedule of the lamps shall be from approximately one-half hour after sunset until one-half hour before sunrise.

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Date Filed: 11-02-05

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President and CEO of Northern States Power Company

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Order Date: 09-01-06

**STREET LIGHTING ENERGY SERVICE (CLOSED)**  
**RATE CODE A35**

Section No. 5  
10th Revised Sheet No. 79

**AVAILABILITY**

Available for year round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns an ornamental street lighting system complete with standards, luminaires with globes, lamps, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's facilities as designated by Company. Service is limited to existing installations being served under this schedule.

**RATE**

| <u>Designation of Lamp</u> | <u>Number of<br/>Lamps per<br/>Luminaire</u> | <u>Monthly Rate per Luminaire - AN</u> |
|----------------------------|----------------------------------------------|----------------------------------------|
| 2,500 Lumen Incandescent   | 1                                            | \$5.46                                 |
| 6,000 Lumen Incandescent   | 1                                            | \$9.67                                 |
| 10,000 Lumen Incandescent  | 1                                            | \$13.63                                |
| 15,000 Lumen Incandescent  | 1                                            | \$18.55                                |
| F72HO Fluorescent          | 1                                            | \$4.97                                 |
| F72HO Fluorescent          | 2                                            | \$6.57                                 |
| F72HO Fluorescent          | 4                                            | \$11.63                                |
| F72EHO Fluorescent         | 1                                            | \$6.73                                 |
| F72EHO Fluorescent         | 2                                            | \$10.26                                |
| F72EHO Fluorescent         | 4                                            | \$18.61                                |

**ENERGY CREDITS**

A merger credit of \$0.000381 and property tax credit of \$0.000507 shall be applied per kWh.

**INTERIM RATE ADJUSTMENT**

A 7.25% adjustment will be applied to each bill after any applicable Customer Charge, Energy Charge and any of the following: Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discounts, Energy Charge Credit and Annual Minimum Demand Charge.

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(Continued on Sheet No. 5-79.1)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING ENERGY SERVICE (CLOSED)**  
**RATE CODE A35**

Section No. 5  
11th Revised Sheet No. 79

**AVAILABILITY**

Available for year round illumination of public streets, parkways, and highways by electric lamps mounted on standards where customer owns an ornamental street lighting system complete with standards, luminaires with globes, lamps, and other appurtenances, together with all necessary cables extending between standards and to point of connection to Company's facilities as designated by Company. Service is limited to existing installations being served under this schedule.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

| <u>Designation of Lamp</u> |             | <u>Number of<br/>Lamps per<br/>Luminaire</u> | <u>Monthly Rate per Luminaire - AN</u> |
|----------------------------|-------------|----------------------------------------------|----------------------------------------|
| 2,500 Lumen Incandescent   |             | 1                                            | \$4.55                                 |
| 6,000 Lumen Incandescent   |             | 1                                            | \$7.54                                 |
| 10,000 Lumen Incandescent  |             | 1                                            | \$10.27                                |
| F72HO                      | Fluorescent | 1                                            | \$4.45                                 |
| F72HO                      | Fluorescent | 2                                            | \$5.57                                 |
| F72HO                      | Fluorescent | 4                                            | \$9.49                                 |

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(Continued on Sheet No. 5-79.1)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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STREET LIGHTING ENERGY SERVICE (CLOSED)  
(Continued)  
RATE CODE A35

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Section No. 5  
1st Revised Sheet No. 79.1

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

---

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STREET LIGHTING ENERGY SERVICE (CLOSED) (Continued)  
RATE CODE A35

Section No. 5  
2nd Revised Sheet No. 79.1

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
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Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

---

**STREET LIGHTING ENERGY SERVICE (CLOSED) (Continued)**  
**RATE CODE A35**

Section No. 5  
3rd Revised Sheet No. 79.1

---

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

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Date Filed: 08-01-06

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 05-01-07

Docket No. E002/M-06-1505

Order Date: 03-29-07

STREET LIGHTING SERVICE - CITY OF ST. PAUL  
RATE CODE A37

Section No. 5  
10th Revised Sheet No. 80

**AVAILABILITY**

Available to the City of St. Paul for furnishing, maintaining, and operating certain electrical connections, lines, and appurtenances thereto, and supplying electric current for city street lighting.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate per Luminaire</u> |
|----------------------------|-----------------------------------|
| 100W High Pressure Sodium  | \$5.02                            |
| 150W High Pressure Sodium  | \$5.95                            |
| 250W High Pressure Sodium  | \$8.77                            |

**ENERGY CREDITS**

A merger credit of \$0.000381 and property tax credit of \$0.000507 shall be applied per kWh.

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING SERVICE - CITY OF ST. PAUL**  
**RATE CODE A37**

Section No. 5  
11th Revised Sheet No. 80

**AVAILABILITY**

Available to the City of St. Paul for furnishing, maintaining, and operating certain electrical connections, lines, and appurtenances thereto, and supplying electric current for city street lighting.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate per Luminaire</u> |
|----------------------------|-----------------------------------|
| 100W High Pressure Sodium  | \$5.12                            |
| 150W High Pressure Sodium  | \$5.58                            |
| 250W High Pressure Sodium  | \$7.36                            |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STREET LIGHTING SERVICE - CITY OF ST. PAUL  
RATE CODE A37**

Section No. 5  
12th Revised Sheet No. 80

**AVAILABILITY**

Available to the City of St. Paul for furnishing, maintaining, and operating certain electrical connections, lines, and appurtenances thereto, and supplying electric current for city street lighting.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

| <u>Designation of Lamp</u> | <u>Monthly Rate per Luminaire</u> |
|----------------------------|-----------------------------------|
| 100W High Pressure Sodium  | \$5.12                            |
| 150W High Pressure Sodium  | \$5.58                            |
| 250W High Pressure Sodium  | \$7.36                            |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**OTHER PROVISIONS**

This schedule is also subject to provisions contained in Rules for Application of Street Lighting Rates.

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

**PUBLIC TELEPHONE BOOTH LIGHTING SERVICE  
(CLOSED)  
RATE CODE A38**

Section No. 5  
7th Revised Sheet No. 81

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**AVAILABILITY**

Available for year-round illumination of existing public telephone booths at various locations served through street lighting circuits.

**RATE**

Customer Charge per Month \$3.01

For Each 10 Watts or Fraction Thereof in Excess of \$0.301279  
100 Watts of Connected Load per Booth per Month

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

---

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Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**PUBLIC TELEPHONE BOOTH LIGHTING SERVICE  
(CLOSED)  
RATE CODE A38**

Section No. 5  
8th Revised Sheet No. 81

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**CANCELED**

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Date Filed: 11-02-05

By: Cynthia L. Leshner

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

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RULES FOR APPLICATION OF  
STREET LIGHTING RATES

Section No. 5  
Original Sheet No. 82  
Relocated from MPUC No. 1 Sheet No. 5-52.1

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1. SERVICE INCLUDED IN RATE

a. *Street Lighting System Service*

Overhead, Underground, Decorative Underground

Company shall own, operate, and maintain the overhead and underground street lighting systems using Company's standard street lighting equipment.

Purchase Option.

Customer shall purchase from Company the entire ornamental street lighting system including underground cables, posts, lamps, ballasts, starters, photocells, and glassware and transfer ownership to the Company. The street lighting system shall be Company approved and include a lamp type and wattage combination that corresponds to an existing Purchase Option rate. Company shall furnish all electric energy necessary to operate the street lighting system, shall make all lamp and glassware renewals, clean the glassware, light and extinguish all lamps, make all ballast and starter renewals, and furnish all the materials and labor necessary for these services. Company shall also repair all damaged equipment for 25 years from the installation date. After 25 years, Company will repair damaged equipment when the damage is not associated with the age of the street lighting system. If in the Company's opinion, the condition of the street lighting system is such that replacement or significant renovation of the system is necessary, the customer shall have two options:

- (1) the customer must either transfer to the appropriate Company purchased rate if available, or
- (2) reimburse Company for the installed cost of a replacement system or a Company approved renovation of the existing system.

b. *Street Lighting Energy Service*

The customer owns and maintains entire ornamental street lighting system including underground cables, posts, lamps, ballasts, photocells, and glassware. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule. Company furnishes energy only at central distribution points designated by Company. See individual street lighting contracts for terms and conditions not covered herein.

(Continued on Sheet No. 5-83)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E, G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RULES FOR APPLICATION OF  
STREET LIGHTING RATES**

Section No. 5  
1st Revised Sheet No. 82

**1. SERVICE INCLUDED IN RATE**

**a. *Street Lighting System Service***

Overhead, Underground, Decorative Underground

Company shall own, operate, and maintain the overhead and underground street lighting systems using Company's standard street lighting equipment.

Pre-Pay Option.

Customer shall pay the Company upfront the costs associated with the entire ornamental street lighting system including underground cables, posts, lamps, ballasts, starters, photocells, and glassware. The Company retains ownership of the street lighting system. The street lighting system shall be Company approved and include a lamp type and wattage combination that corresponds to an existing Pre-Pay Option rate. Company shall furnish all electric energy necessary to operate the street lighting system, shall make all lamp and glassware renewals, clean the glassware, light and extinguish all lamps, make all ballast and starter renewals, and furnish all the materials and labor necessary for these services. Company shall also repair all damaged equipment for 25 years from the installation date. After 25 years, Company will repair damaged equipment when the damage is not associated with the age of the street lighting system. If in the Company's opinion, the condition of the street lighting system is such that replacement or significant renovation of the system is necessary, the customer shall have two options:

- (1) the customer must either transfer to the appropriate Company purchased rate if available, or
- (2) reimburse Company for the installed cost of a replacement system or a Company approved renovation of the existing system.

**b. *Street Lighting Energy Service***

The customer owns and maintains entire ornamental street lighting system including underground cables, posts, lamps, ballasts, photocells, and glassware. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule. Company furnishes energy only at central distribution points designated by Company. See individual street lighting contracts for terms and conditions not covered herein.

(Continued on Sheet No. 5-83)

Date Filed: 11-02-05

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President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



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RULES FOR APPLICATION OF  
STREET LIGHTING RATES (Continued)

Section No. 5  
Original Sheet No. 83  
Relocated from MPUC No. 1 Sheet No. 5-52.1 &  
5-52.2

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1. SERVICE INCLUDED IN RATE (Continued)

c. *City of St. Paul - Multiple Overhead*

City owns and maintains lamp units, lamps, photocells, and glassware. Company owns and maintains distribution system, including hangers and furnishes energy at the lamp unit. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule

2. DAILY OPERATING SCHEDULE

The daily operating schedule of lamps shall be from approximately one-half hour after sunset until one-half hour before sunrise.

3. OUTAGES

If illumination from any lamp is interrupted and said illumination is not resumed within 72 hours from the time Company receives notice thereof from customer, one-thirtieth of the monthly energy related rate for such lamp shall be deducted for each night of non-illumination after such notice is received.

4. SPECIAL SERVICES

a. *Street Lighting System Service (Closed)*

Temporary Disconnection of Service (Street lighting facilities remain in place.)

When requested by the customer, Company will temporarily disconnect service to individual street lighting units provided the customer pays a monthly facilities charge equal to the regular monthly rate less the product of the average monthly kWh for the lighting unit and the energy charge from the Street Lighting Energy Service - Metered rate schedule. The customer must pay a charge of \$25.00 to disconnect or reconnect each lighting unit.

Termination of Street Lighting Facilities

When requested by the customer, except for Purchase Option lighting service, Company will remove all or a portion of a street lighting system and cease billing. The customer must pay estimated termination costs for the removal and undepreciated value of facilities, less any salvage value, if the number of lights requested to be removed in any 12 month period exceeds 5% of the municipality's leased street lighting system

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(Continued on Sheet No. 5-84)

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By: James M. Ashley  
General Manager, Marketing and Sales

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**RULES FOR APPLICATION OF  
STREET LIGHTING RATES (Continued)**

Section No. 5  
Original Sheet No. 83

**1. SERVICE INCLUDED IN RATE (Continued)**

**c. City of St. Paul - Multiple Overhead**

City owns and maintains lamp units, lamps, photocells, and glassware. Company owns and maintains distribution system, including hangers and furnishes energy at the lamp unit. Ballasts shall provide a power factor of at least 90% and photocells shall conform to specified daily operating schedule

**2. DAILY OPERATING SCHEDULE**

The daily operating schedule of lamps shall be from approximately one-half hour after sunset until one-half hour before sunrise.

**2. OUTAGES**

If illumination from any lamp is interrupted and said illumination is not resumed within 72 hours from the time Company receives notice thereof from customer, one-thirtieth of the monthly energy related rate for such lamp shall be deducted for each night of non-illumination after such notice is received.

**2. SPECIAL SERVICES**

**a. Street Lighting System Service (Closed)**

Temporary Disconnection of Service (Street lighting facilities remain in place.)

When requested by the customer, Company will temporarily disconnect service to individual street lighting units provided the customer pays a monthly facilities charge equal to the regular monthly rate less the product of the average monthly kWh for the lighting unit and the energy charge from the Street Lighting Energy Service - Metered rate schedule. The customer must pay a charge of \$25.00 to disconnect or reconnect each lighting unit.

Termination of Street Lighting Facilities

When requested by the customer, except for Purchase Option lighting service, Company will remove all or a portion of a street lighting system and cease billing. The customer must pay estimated termination costs for the removal and undepreciated value of facilities, less any salvage value, if the number of lights requested to be removed in any 12 month period exceeds 5% of the municipality's leased street lighting system

(Continued on Sheet No. 5-84)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RULES FOR APPLICATION OF  
STREET LIGHTING RATES (Continued)

Section No. 5  
Original Sheet No. 84  
Relocated from MPUC No. 1 Sheet No. 5-52.2

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4. SPECIAL SERVICES (Continued)

b. *Street Lighting Energy Service*

Daily Operating Schedule Option

Reduced hours of operation from the standard daily operating schedule is available under the applicable commercial and industrial rate, subject to the following provisions:

- (1) customer must install a meter socket at the service point, and
- (2) customer shall provide all maintenance to lighting units and identify the lighting units with Company approved markings.

Disconnection of Service

During the period between customer disconnection and reconnection of street lighting units, Company will cease billing provided the disconnection is made on the line side of the lighting unit ballast. Customer disconnection not on the line side will require the customer to pay a charge to compensate for the lighting unit ballast core loss. When requested by the customer, Company will disconnect or reconnect street lighting units provided the customer pays a charge of \$25.00 for the disconnection or reconnection of each lighting unit. The customer must identify all disconnected street lighting units with Company approved markings.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RULES FOR APPLICATION OF  
STREET LIGHTING RATES (Continued)**

Section No. 5  
Original Sheet No. 84

---

**4. SPECIAL SERVICES (Continued)**

**b. *Street Lighting Energy Service***

Daily Operating Schedule Option

Reduced hours of operation from the standard daily operating schedule is available under the applicable commercial and industrial rate, subject to the following provisions:

- (1) customer must install a meter socket at the service point, and
- (2) customer shall provide all maintenance to lighting units and identify the lighting units with Company approved markings.

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During the period between customer disconnection and reconnection of street lighting units, Company will cease billing provided the disconnection is made on the line side of the lighting unit ballast. Customer disconnection not on the line side will require the customer to pay a charge to compensate for the lighting unit ballast core loss. When requested by the customer, Company will disconnect or reconnect street lighting units provided the customer pays a charge of \$25.00 for the disconnection or reconnection of each lighting unit. The customer must identify all disconnected street lighting units with Company approved markings.

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**SMALL MUNICIPAL PUMPING SERVICE**  
**RATE CODE A40**

Section No. 5  
11th Revised Sheet No. 85

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants.

(Rate schedule applied separately to each delivery point.)

**RATE**

|                           | <u>Oct-May</u> | <u>Jun-Sep</u> |
|---------------------------|----------------|----------------|
| Customer Charge per Month | \$7.39         | \$7.39         |
| Energy Charge per kWh     | \$0.067182     | \$0.077182     |

R

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000793 / kWh reduction, to reflect a property tax change.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-86)

Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SMALL MUNICIPAL PUMPING SERVICE**  
**RATE CODE A40**

Section No. 5  
12th Revised Sheet No. 85

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants. (Rate schedule is applied separately to each delivery point.)

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                           | <u>Oct-May</u> | <u>Jun-Sep</u> |
|---------------------------|----------------|----------------|
| Customer Charge per Month | \$8.00         | \$8.00         |
| Energy Charge per kWh     | \$0.055330     | \$0.064730     |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

(Continued on Sheet No. 5-86)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**SMALL MUNICIPAL PUMPING SERVICE**  
**RATE CODE A40**

Section No. 5  
13th Revised Sheet No. 85

---

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants. (Rate schedule is applied separately to each delivery point.)

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

|                           | <u>Oct-May</u> | <u>Jun-Sep</u> |
|---------------------------|----------------|----------------|
| Customer Charge per Month | \$8.00         | \$8.00         |
| Energy Charge per kWh     | \$0.055330     | \$0.064730     |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**MONTHLY MINIMUM CHARGE**

Customer Charge.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

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(Continued on Sheet No. 5-86)

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

SMALL MUNICIPAL PUMPING SERVICE (Continued)  
RATE CODE A40

Section No. 5  
1st Revised Sheet No. 86

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**INSTALLATION OF DEMAND METERS**

The Company shall install a demand meter for a customer when:

1. Customer's connected load is estimated to be 20 kW or greater, or
2. Customer is served single phase and has a service entrance capacity greater than 200 amperes, or
3. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes, or
4. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or

Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small Municipal Pumping Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the Municipal Pumping Service schedule in the next billing month. Customers with a billing demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small Municipal Pumping Service schedule.

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Date Filed: 03-31-04

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-25-05

Docket No. E002/M-02-2097

Order Date: 01-04-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**SMALL MUNICIPAL PUMPING SERVICE (Continued)**  
**RATE CODE A40**

Section No. 5  
1st Revised Sheet No. 86

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**INSTALLATION OF DEMAND METERS**

The Company shall install a demand meter for a customer when:

1. Customer's connected load is estimated to be 20 kW or greater, or
2. Customer is served single phase and has a service entrance capacity greater than 200 amperes, or
3. Customer is served three phase at 120/208 or 120/240 volts and has a service entrance capacity greater than 200 amperes, or
4. Customer is served three phase at 240/480 or 277/480 volts and has a service entrance capacity greater than 100 amperes, or

Customer's average monthly kWh use for four consecutive months exceeds 3,500 kWh.

If a demand meter is installed in accordance with the above, the customer may remain on the Small Municipal Pumping Service schedule as long as customer's maximum demand is less than 25 kW. When the customer achieves an actual maximum demand of 25 kW or greater, the customer will be placed on the Municipal Pumping Service schedule in the next billing month. Customers with a billing demand of less than 25 kW for 12 consecutive months will be given the option of returning to the Small Municipal Pumping Service schedule.

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**MUNICIPAL PUMPING SERVICE**  
**RATE CODE A41**

Section No. 5  
12th Revised Sheet No. 87

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants.

(Rate schedule applied separately to each delivery point.)

**RATE**

|                                        |                           |                |
|----------------------------------------|---------------------------|----------------|
| Customer Charge per Month              | \$22.04                   |                |
|                                        | <u>Oct-May</u>            | <u>Jun-Sep</u> |
| Service at Secondary Voltage           |                           |                |
| Demand Charge per Month per kW         | \$6.56                    | \$9.21         |
| Energy Charge per kWh                  | \$0.039884                |                |
| Energy Charge Credit per Month per kWh |                           |                |
| All kWh in Excess of 400 Hours         | \$0.0070                  |                |
| Times the Billing Demand               |                           |                |
|                                        | <u>January - December</u> |                |
| Voltage Discounts per Month            | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                        | \$0.95                    | \$0.0005       |

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

(Continued on Sheet No. 5-88)

|                            |                                            |                          |
|----------------------------|--------------------------------------------|--------------------------|
| Date Filed: 11-02-05       | By: Kent T. Larson                         | Effective Date: 01-01-06 |
|                            | Vice President of Jurisdictional Relations |                          |
| Docket No. E002/GR-05-1428 |                                            | Order Date: 12-30-05     |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MUNICIPAL PUMPING SERVICE**  
**RATE CODE A41**

Section No. 5  
13th Revised Sheet No. 87

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants. (Rate schedule is applied separately to each delivery point.)

T

**RATE**

R

Customer Charge per Month

\$22.00

Oct-May

Jun-Sep

Service at Secondary Voltage

Demand Charge per Month per kW

\$6.81

\$10.15

R

Energy Charge per kWh

\$0.021690

R

Energy Charge Credit per Month per kWh

All kWh in Excess of 400 Hours

\$0.0090

R

Times the Billing Demand

January - December

Voltage Discounts per Month

Per kW

Per kWh

Primary Voltage

\$0.90

\$0.0007

R

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

D  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

N  
N

(Continued on Sheet No. 5-88)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MUNICIPAL PUMPING SERVICE  
RATE CODE A41**

Section No. 5  
14th Revised Sheet No. 87

**AVAILABILITY**

Available to municipal owned water works and municipal sewage systems for operation of pumping and treatment plants. (Rate schedule is applied separately to each delivery point.)

**RATE**

|                                        |                           |                |
|----------------------------------------|---------------------------|----------------|
| Customer Charge per Month              | \$22.00                   |                |
|                                        | <u>Oct-May</u>            | <u>Jun-Sep</u> |
| Service at Secondary Voltage           |                           |                |
| Demand Charge per Month per kW         | \$6.81                    | \$10.15        |
| Energy Charge per kWh                  | \$0.021690                |                |
| Energy Charge Credit per Month per kWh |                           |                |
| All kWh in Excess of 400 Hours         | \$0.0090                  |                |
| Times the Billing Demand               |                           |                |
|                                        | <u>January - December</u> |                |
| Voltage Discounts per Month            | <u>Per kW</u>             | <u>Per kWh</u> |
| Primary Voltage                        | \$0.90                    | \$0.0007       |

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

(Continued on Sheet No. 5-88)

|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

**MUNICIPAL PUMPING SERVICE (Continued)**  
**RATE CODE A41**

Section No. 5  
1st Revised Sheet No. 88

---

**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000793 / kWh reduction, to reflect a property tax change.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

The adjusted demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW. In no month shall the demand to be billed be considered as less than the current month's adjusted demand in kW nor greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

**MAXIMUM DEMAND**

The maximum actual demand in kW shall be the greatest 15 minute load during the month for which bill is rendered.

**POWER FACTOR**

For three phase customers with services above 200 amperes, or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum billing demand shall not be less than provided above.

**TERMS AND CONDITIONS OF SERVICE**

Alternating current service is provided at the following nominal voltages:

1. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts, or
2. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

---

**MUNICIPAL PUMPING SERVICE (Continued)**  
**RATE CODE A41**

Section No. 5  
2nd Revised Sheet No. 88

---

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

The adjusted demand in kW for billing purposes shall be determined by dividing the maximum actual demand in kW by the power factor expressed in percent but not more than a 90% power factor and multiplying the quotient so obtained by 90% and rounding to the nearest whole kW. In no month shall the demand to be billed be considered as less than the current month's adjusted demand in kW nor greater than the value in kW determined by dividing the kWh sales for the billing month by 75 hours per month.

**MAXIMUM DEMAND**

The maximum actual demand in kW shall be the greatest 15 minute load during the month for which bill is rendered.

**POWER FACTOR**

For three phase customers with services above 200 amperes, or above 480 volts, the power factor for the month shall be determined by permanently installed metering equipment. For all single phase customers and three phase customers with services 200 amperes or less, a power factor of 90% will be assumed.

**MINIMUM DEMAND TO BE BILLED**

The monthly minimum billing demand shall not be less than provided above.

**TERMS AND CONDITIONS OF SERVICE**

Alternating current service is provided at the following nominal voltages:

1. Secondary Voltage: Single or three phase from 208 volts up to but not including 2,400 volts, or
2. Primary Voltage: Three phase from 2,400 volts up to but not including 69,000 volts.

---

Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**FIRE AND CIVIL DEFENSE SIREN SERVICE**  
**RATE CODE A42**

Section No. 5  
1st Revised Sheet No. 89

---

**AVAILABILITY**

Available for power service for the operation of municipal fire and civil defense warning sirens having a rated capacity not in excess of 25 horsepower.

**RATE**

Per Month per Horsepower of Connected Capacity      \$0.59

**MONTHLY MINIMUM CHARGE**

Net per Month      \$2.95

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**CONNECTION**

Under the above rate, the Company will make no extension for service other than a normal service span. Where conditions are such that a long service connection or extra transformer capacity, or both, are necessary, the customer shall either pay the entire cost of such extra equipment or pay a monthly facilities charge based on such costs.

The circuit serving the siren must be in conduit from the entrance to the motor with an enclosed entrance switch box, which may be sealed and operated from an external appliance.

**OPTIONAL**

In case the customer already has a service connection of sufficient capacity to permit operation of the siren without unduly disturbing conditions on the Company's nearby circuits, the siren may be connected at the option of the customer on the load side of the customer's existing meter and the commercial rate applied to the total load.

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**FIRE AND CIVIL DEFENSE SIREN SERVICE  
RATE CODE A42**

Section No. 5  
2nd Revised Sheet No. 89

**AVAILABILITY**

Available for power service for the operation of municipal fire and civil defense warning sirens having a rated capacity not in excess of 25 horsepower.

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

Per Month per Horsepower of Connected Capacity      \$0.63

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**MONTHLY MINIMUM CHARGE**

Net per Month      \$3.12

The following are terms and conditions for service under this tariff.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**CONNECTION**

Under the above rate, the Company will make no extension for service other than a normal service span. Where conditions are such that a long service connection or extra transformer capacity, or both, are necessary, the customer shall either pay the entire cost of such extra equipment or pay a monthly facilities charge based on such costs.

The circuit serving the siren must be in conduit from the entrance to the motor with an enclosed entrance switch box, which may be sealed and operated from an external appliance.

**OPTIONAL**

In case the customer already has a service connection of sufficient capacity to permit operation of the siren without unduly disturbing conditions on the Company's nearby circuits, the siren may be connected at the option of the customer on the load side of the customer's existing meter and the commercial rate applied to the total load.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

**EXCESS ENERGY -**  
**ST. ANTHONY FALLS LOCKS AND DAM**  
**RATE CODE A43**

Section No. 5  
7th Revised Sheet No. 90

---

**EFFECTIVE FOR**

United States Government acting through the Corps of Engineers.

**AVAILABILITY**

Available for operation of the St. Anthony Falls Lower Lock and Dam and Upper Lock which is in excess of the service to be supplied without charge under provisions of Article 11 of Federal Power Commission Order issued April 30, 1963, for License Project No. 2056.

**KIND OF SERVICE**

Three phase, 60 cycle alternating at the following nominal voltages:

|                    |              |
|--------------------|--------------|
| Lower Lock and Dam | 4,160 volts  |
| Upper Lock         | 13,800 volts |

**RATE**

Monthly Demand Charge per kW

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| Demand Which is in Excess of the Demand<br>to be Furnished Without Charge | \$5.23 |
|---------------------------------------------------------------------------|--------|

Annual Energy Charge per kWh

|                                                                                                                          |            |
|--------------------------------------------------------------------------------------------------------------------------|------------|
| Energy Supplied During the Contract Year in<br>Excess of the Annual Energy Consumption to<br>be Furnished Without Charge | \$0.040140 |
|--------------------------------------------------------------------------------------------------------------------------|------------|

R

**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

N  
N  
N  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**DETERMINATION OF DEMAND**

The demand in kW shall be the greatest 15 minute load during the month for which bill is rendered.

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(Continued on Sheet No. 5-90-1)

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/GR-05-1428

Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**EXCESS ENERGY -  
ST. ANTHONY FALLS LOCKS AND DAM  
RATE CODE A43**

Section No. 5  
8th Revised Sheet No. 90

**EFFECTIVE FOR**

United States Government acting through the Corps of Engineers.

**AVAILABILITY**

Available for operation of the St. Anthony Falls Lower Lock and Dam and Upper Lock which is in excess of the service to be supplied without charge under provisions of Article 11 of Federal Power Commission Order issued April 30, 1963, for License Project No. 2056.

**KIND OF SERVICE**

Three phase, 60 cycle alternating at the following nominal voltages:

|                    |              |
|--------------------|--------------|
| Lower Lock and Dam | 4,160 volts  |
| Upper Lock         | 13,800 volts |

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

N  
|  
N

**RATE**

Monthly Demand Charge per kW

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| Demand Which is in Excess of the Demand<br>to be Furnished Without Charge | \$5.71 |
|---------------------------------------------------------------------------|--------|

R

Annual Energy Charge per kWh

|                                                                                                                          |            |
|--------------------------------------------------------------------------------------------------------------------------|------------|
| Energy Supplied During the Contract Year in<br>Excess of the Annual Energy Consumption to<br>be Furnished Without Charge | \$0.022070 |
|--------------------------------------------------------------------------------------------------------------------------|------------|

R

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

D  
N

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

(Continued on Sheet No. 90.1)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**EXCESS ENERGY -  
ST. ANTHONY FALLS LOCKS AND DAM  
RATE CODE A43**

Section No. 5  
9th Revised Sheet No. 90

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**EFFECTIVE FOR**

United States Government acting through the Corps of Engineers.

**AVAILABILITY**

Available for operation of the St. Anthony Falls Lower Lock and Dam and Upper Lock which is in excess of the service to be supplied without charge under provisions of Article 11 of Federal Power Commission Order issued April 30, 1963, for License Project No. 2056.

**KIND OF SERVICE**

Three phase, 60 cycle alternating at the following nominal voltages:

|                    |              |
|--------------------|--------------|
| Lower Lock and Dam | 4,160 volts  |
| Upper Lock         | 13,800 volts |

**DETERMINATION OF CUSTOMER BILLS**

Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and / or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

**RATE**

Monthly Demand Charge per kW

|                                                                           |        |
|---------------------------------------------------------------------------|--------|
| Demand Which is in Excess of the Demand<br>to be Furnished Without Charge | \$5.71 |
|---------------------------------------------------------------------------|--------|

Annual Energy Charge per kWh

|                                                                                                                          |            |
|--------------------------------------------------------------------------------------------------------------------------|------------|
| Energy Supplied During the Contract Year in<br>Excess of the Annual Energy Consumption to<br>be Furnished Without Charge | \$0.022070 |
|--------------------------------------------------------------------------------------------------------------------------|------------|

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

(Continued on Sheet No. 90.1)

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|                           |                                                    |                          |
|---------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 08-01-06      | By: Cynthia L. Leshner                             | Effective Date: 05-01-07 |
|                           | President and CEO of Northern States Power Company |                          |
| Docket No. E002/M-06-1505 |                                                    | Order Date: 03-29-07     |

Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

EXCESS ENERGY -  
ST. ANTHONY FALLS LOCKS AND DAM  
RATE CODE A43

Section No. 5  
Original Sheet No. 90.1

SPECIFIED ELECTRICAL QUANTITIES TO BE FURNISHED WITHOUT CHARGE

|                    | <u>Monthly kW</u> | <u>Contract Year</u> |
|--------------------|-------------------|----------------------|
|                    | <u>Demand</u>     | <u>kWh</u>           |
| Lower Lock and Dam | 375               | 480,000              |
| Upper Lock         | 300               | 370,000              |

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Date Filed: 11-02-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

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Order Date: 12-30-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**EXCESS ENERGY -  
ST. ANTHONY FALLS LOCKS AND DAM (Continued)  
RATE CODE A43**

Section No. 5  
1st Revised Sheet No. 90.1

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

The following are terms and conditions for service under this tariff.

**DETERMINATION OF DEMAND**

The demand in kW shall be the greatest 15-minute load during the month for which bill is rendered.

**SPECIFIED ELECTRICAL QUANTITIES TO BE FURNISHED WITHOUT CHARGE**

|                    | <u>Monthly kW</u><br><u>Demand</u> | <u>Contract Year</u><br><u>kWh</u> |
|--------------------|------------------------------------|------------------------------------|
| Lower Lock and Dam | 375                                | 480,000                            |
| Upper Lock         | 300                                | 370,000                            |

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Date Filed: 11-02-05

By: Cynthia L. Leshar  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06



FUEL CLAUSE RIDER

Section No. 5  
11th Revised Sheet No. 91

**FUEL CLAUSE ADJUSTMENT (FCA)**

There shall be added to or deducted from the monthly bill a Fuel Cost Adjustment. The Fuel Cost Adjustment is calculated by multiplying the monthly applicable billing kilowatt hours (kWh) by a prorated Fuel Clause Adjustment Factor (FCAF) based on the number of billing days in each calendar month. The FCAF is equal to the Current Period Cost of Energy plus the Energy Cost True-up Factor less the Base Cost of Energy of \$ 0.02039 and rounded to the nearest \$0.00001 per kWh.

R

**EXEMPTION**

For customers participating in Company's Windsource Program under the Voluntary Renewable and High-Efficiency Energy Purchase Rider, the applicable billing kilowatt hours for Fuel Cost Adjustment shall be reduced by the elected Voluntary Renewable Adjustment energy blocks.

In the event customer's metered energy use is lower than the subscribed energy blocks, the applicable billing kilowatt hours for Fuel Cost Adjustment for that month is zero.

**CURRENT PERIOD COST OF ENERGY**

The Current Period Cost of Energy per kWh is defined as the sum of the following costs forecasted to be incurred during the calendar month, divided by the kWh sales forecasted for the same month:

1. The cost of fossil, nuclear, biomass, wood, and refuse-derived fuel (RDF) consumed in the Company's generating stations as recorded in Accounts 151 and 518.
2. The net energy cost of purchases as recorded in Account 555, exclusive of capacity or demand charges, irrespective of the designation assigned to such transaction, when such energy is purchased on an economic dispatch basis.
3. The actual identifiable fossil, nuclear, biomass, wood, and refuse-derived fuel (RDF) costs associated with energy purchased for reasons other than identified in (2) above and expenditures entered into or made by the Company to satisfy the wind and biomass mandates contained in sections 216B.2423 and 216B.2424, or to develop renewable energy sources from the account section 116C.779 as these amounts recorded in Account 407.3.
4. The net energy cost of purchases from a qualifying facility, as that term is defined in 18 C.F.R. Part 292 and Minn. Rule 7835.0100, Subp. 19, as amended, and the net cost of energy (and capacity if purchased on an energy output basis) purchases from any facility utilizing wind energy conversion systems for the generation of electric energy, whether or not those purchases occur on an economic dispatch basis.
5. Less the fuel-related costs recovered through intersystem sales.

(Continued on Sheet No. 5-91.1)

|             |                 |                                            |                 |          |
|-------------|-----------------|--------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Kent T. Larson                         | Effective Date: | 01-01-06 |
|             |                 | Vice President of Jurisdictional Relations |                 |          |
| Docket No.  | E002/M-05-1759  |                                            | Order Date:     | 12-30-05 |
|             | E002/GR-05-1428 |                                            |                 |          |

**FUEL CLAUSE RIDER**

Section No. 5  
12th Revised Sheet No. 91

**FUEL CLAUSE CHARGE**

There shall be added to or deducted from the monthly bill a Fuel Cost Charge calculated by multiplying the applicable monthly billing kilowatt hours (kWh) by the billed Fuel Adjustment Factor (FAF) per kWh. The billed FAF is calculated by prorating each calendar month FAF by the number of customer billing days in each calendar month, and rounding to the nearest \$0.00001 per kWh.

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**EXEMPTION**

For customers participating in Company's Windsourse® Program under the Voluntary Renewable and High-Efficiency Energy Purchase Rider, the applicable billing kWh subject to the FAF shall be reduced by the elected Voluntary Renewable Adjustment energy blocks.

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In the event that a customer's metered energy use is lower than the subscribed energy blocks, the applicable billing kWh for the FAF for that month is zero.

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**FUEL ADJUSTMENT FACTOR (FAF)**

A separate FAF will be determined for each service category defined by customer class and time-of-day (TOD) period within the Commercial and Industrial – Demand class. The FAF for each service category is the sum of the Current Period Cost of Energy multiplied by the applicable FAF Ratio, and the applicable Energy Cost True-up Factor. The FAF Ratio is the Class Cost Ratio multiplied by the corresponding TOD Ratio:

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| Service Category        | Class Cost Ratio | TOD Ratio | FAF Ratio |
|-------------------------|------------------|-----------|-----------|
| Residential             | 1.0281           | 1.0000    | 1.0281    |
| C&I Non-Demand          | 1.0505           | 1.0000    | 1.0505    |
| C&I Demand              | 0.9878           | 1.0190    | 1.0066    |
| C&I Demand TOD On-Peak  | 0.9878           | 1.3024    | 1.2865    |
| C&I Demand TOD Off-Peak | 0.9878           | 0.7790    | 0.7695    |
| Outdoor Lighting        | 0.7219           | 1.0000    | 0.7219    |

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**BASE COST OF ENERGY**

The System Base Cost of Energy is \$0.02039 per kWh. The FAF for each service category includes a Base Cost of Energy, which is the System Base Cost of Energy multiplied by the applicable FAF Ratio.

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| Service Category        | Base Cost of Energy |
|-------------------------|---------------------|
| Residential             | \$0.02096           |
| C&I Non-Demand          | \$0.02142           |
| C&I Demand Non-TOD      | \$0.02052           |
| C&I Demand TOD On-Peak  | \$0.02623           |
| C&I Demand TOD Off-Peak | \$0.01569           |
| Outdoor Lighting        | \$0.01472           |

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(Continued on Sheet No. 5-91.1)

|                            |                                                    |                          |
|----------------------------|----------------------------------------------------|--------------------------|
| Date Filed: 11-02-05       | By: Cynthia L. Leshner                             | Effective Date: 02-01-07 |
|                            | President and CEO of Northern States Power Company |                          |
| Docket No. E002/GR-05-1428 |                                                    | Order Date: 09-01-06     |

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FUEL CLAUSE RIDER (Continued)

Section No. 5  
3rd Revised Sheet No. 91.1

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**CURRENT PERIOD COST OF ENERGY (CONTINUED)**

6. Less purchased power cost for the Windsource® Program as recorded in Federal Energy Regulatory Commission (FERC) account 555.

The kWh sales shall be all kWh forecasted to be sold excluding intersystem sales.

**ENERGY COST TRUE-UP FACTOR**

The Energy Cost True-up Factor is calculated by dividing the Energy Cost True-up Amount by the kWh sales forecasted for the calendar month. The Energy Cost True-up Amount is the balance of the prior months' unrecovered or over-recovered cumulative actual energy costs.

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Date Filed: 03-31-04

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-25-05

Docket No. E-002/M-03-0585

Order Date: 01-04-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**FUEL CLAUSE RIDER (Continued)**

Section No. 5  
4th Revised Sheet No. 91.1

**CURRENT PERIOD COST OF ENERGY**

The Current Period Cost of Energy per kWh is defined as the qualifying costs, forecasted to be incurred during the calendar month, divided by the kWh sales forecasted for the same month. Qualifying kWh sales are all kWh sales excluding intersystem and Windsource® Program kWh sales. Qualifying costs are the sum of the following:

1. The cost of fuels consumed in the Company's generating stations as recorded in Federal Energy Regulatory Commission (FERC) Accounts 151 and 518. T T L
2. The cost of energy purchases as recorded in FERC Account 555, exclusive of capacity or demand charges, irrespective of the designation assigned to such transaction, when such energy is purchased on an economic dispatch basis. T L
3. Costs or revenues linked to the Company's load serving obligation, associated with participation in wholesale electric energy markets operated by Regional Transmission Organizations, Independent System Operators or similar entities that have received FERC approval to operate the energy markets. This provision includes: (1) costs and revenues that are linked to energy produced by the Company's generating stations described in paragraph 1 above, or to its energy purchases described in paragraph 2 above (inclusive of congestion costs, marginal loss costs, and revenues from sales to the market), (2) costs and revenues associated with settlement of Financial Transmission Rights (FTRs) and the purchase or sale of FTRs, (3) revenues received as compensation for the transition from average losses to marginal losses, and (4) costs associated with the operations of regional energy markets, including uplifting charges, and excluding administrative charges and the costs or revenues from parts (1) to (4) that are associated with intersystem sales. N
4. The costs of energy purchased and other expenditures entered into or made by the Company to satisfy the renewable energy mandates and objectives contained in section 216B.1645. T L
5. The energy cost of purchases from a qualifying facility, as that term is defined in 18 C.F.R. Part 292 and Minn. Rule 7835.0100, Subp. 19, as amended, and the net cost of energy (and capacity if purchased on an energy output basis) purchases from any qualifying facility using wind energy conversion systems for the generation of electric energy, whether or not those purchases occur on an economic dispatch basis. T L  
Capacity costs associated with such purchased power contracts, which are in excess of 100 kW and commenced after the date of the Commission's final order in Docket No. E002/GR-05-1428, shall be excluded from Fuel Cost Charge recovery. N N
6. Less the fuel-related costs recovered through intersystem sales. TL
7. Less purchased power cost for the Windsource® Program as recorded in FERC account 555. T

(Continued on Sheet No. 5-91.2)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Minneapolis, Minnesota 55401

## MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**FUEL CLAUSE RIDER (Continued)**

Section No. 5  
Original Sheet No. 91.2

## ENERGY COST TRUE-UP FACTORS

An Energy Cost True-up Factor per kWh is calculated for each Class and TOD category by dividing the Energy Cost True-up Amount by the qualifying kWh sales forecasted for the calendar month. The Energy Cost True-up Amount is the cumulative balance of the unrecovered and over-recovered actual energy costs and MISO Day 2 expenses from prior months and the retail share of intersystem margins pursuant to the Margin-Sharing program adopted by the Commission in Docket No. E002/GR-05-1428. The asset and non-asset based margins are defined as sales revenues less the sum of fuel and energy costs (including costs associated with MISO Day 2 markets that are booked to FERC Account 555) and any additional transmission costs incurred that are required to make such sales. The retail share of intersystem margins is the sum of the following:

1. **Asset Based Margins:** Eighty percent (80%) of the Minnesota State jurisdiction share of margins from intersystem sales of ancillary services and one hundred percent (100%) of the Minnesota jurisdiction share of margins from intersystem sales of excess generation. These margins shall be the actual amounts of such margins recorded and are subject to any MISO resettlements.
2. **Non-Asset Based Margins:** Twenty five percent (25%) of the Minnesota State jurisdiction share of non-asset based margins from intersystem sales. These margins shall be the actual realized amounts of such margins recorded and are subject to the FERC approved Joint Operating Agreement and any MISO resettlements. The retail share of the Non-Asset Based Margins will be calculated annually after the close of the calendar year, and will be credited to the Energy Cost True-up Factor only if the calendar year balance is positive. The credit will be distributed equally each month over the following 12-month period.

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(Continued on Sheet No. 5-91.3)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
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| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**FUEL CLAUSE RIDER (Continued)**

Section No. 5  
Original Sheet No. 91.3

**RATE SCHEDULES BY SERVICE CATEGORY**

**Residential**

Residential (A00, A01, A03)  
Residential TOD (A02, A04)  
Energy Controlled (A05)  
Limited Off-Peak (A06)

**Commercial and Industrial Non-Demand**

Energy Controlled (A05)  
Limited Off Peak (A06)  
Small General (A09, A10, A11, A13)  
Small General TOD (A12, A16, A18, A22)  
Small Municipal Pumping (A40)  
Fire and Civil Defense Siren (A42)

**Commercial and Industrial Demand – Non-TOD**

General (A14)  
Peak Controlled Tiered (A23)  
Municipal Pumping (A41)  
Excess Energy - St. Anthony (A43)

**Commercial and Industrial Demand – TOD**

General TOD (A15, A17, A19)  
Peak Controlled Tiered TOD (A24)  
Tier 1 Energy Controlled Rider (A27)  
Real Time Pricing (A62, A63)

**Outdoor Lighting**

Automatic Protective (A07)  
Street Lighting System (A30)  
Street Lighting Energy (A31)  
Street Lighting Energy – Metered (A34)  
Street Lighting Energy (Closed) (A35)  
Street Lighting - City of St. Paul (A37)

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Date Filed: 11-02-05 By: Cynthia L. Leshner Effective Date: 02-01-07  
President and CEO of Northern States Power Company  
Docket No. E002/GR-05-1428 Order Date: 09-01-06

**CONSERVATION IMPROVEMENT PROGRAM  
ADJUSTMENT RIDER**

Section No. 5  
2nd Revised Sheet No. 92

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each non-exempt customer's monthly bill a Conservation Improvement Program Adjustment which shall be calculated by multiplying the monthly applicable billing kilowatt hours (kWh) by the applicable Conservation Improvement Program Adjustment factor.

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For customer accounts granted exemption by the Commissioner of the Minnesota Department of Commerce (or successor agency) from Conservation Improvement Program (CIP) costs pursuant to Minn. Stat. 216B.241, the Conservation Improvement Program Adjustment shall not apply. Instead, each monthly bill will include the appropriate Conservation Improvement Program Exemption Adjustment which reflects the lower CIP cost responsibility applicable to exempt customer accounts.

**DETERMINATION OF CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT FACTOR**

The Conservation Improvement Program Adjustment factor shall be the quotient obtained by dividing the Recoverable Conservation Improvement Program Expense by the Projected Retail Sales for a designated recovery period. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

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Recoverable Conservation Improvement Program (CIP) Expense shall be the conservation program expense not recovered through base rates as determined from the CIP Tracker account balance for a designated period. All costs appropriately charged to the CIP Tracker Account shall be eligible for recovery through this Rider and all revenues received from the CIP Adjustment shall be credited to the CIP Tracker Account.

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Projected Retail Sales shall be the estimated kilowatt-hour sales for the designated recovery period excluding sales to CIP exempt customers.

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**DETERMINATION OF CONSERVATION IMPROVEMENT PROGRAM EXEMPTION ADJUSTMENT**

The Conservation Improvement Program Exemption Adjustment applicable to exempt customer accounts shall be a credit as necessary for the authorized annual exemption period determined by multiplying total billing energy by the Conservation Cost Recovery Charge (CCRC) established in the Company's last general rate case, adjusted for any Conservation Improvement Program cost responsibility approved by the Minnesota Public Utilities Commission. Customer accounts granted exemption by a decision of the Commissioner of the Department after the beginning of a calendar year shall be credited for any CIP collections billed after January 1st of such year.

Date Filed: 04-03-06

By: Kent T. Larson

Effective Date: 08-01-06

Vice President, Customer and Community Relations

Docket No. E002/M-06-504

Order Date: 07-07-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**CONSERVATION IMPROVEMENT PROGRAM  
ADJUSTMENT RIDER**

Section No. 5  
2nd Revised Sheet No. 92

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**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

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**DETERMINATION OF CONSERVATION IMPROVEMENT PROGRAM ADJUSTMENT FACTOR**

The Conservation Improvement Program Adjustment factor shall be the quotient obtained by dividing the Recoverable Conservation Improvement Program Expense by the Projected Retail Sales for a designated recovery period. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

T

Recoverable Conservation Improvement Program (CIP) Expense shall be the conservation program expense not recovered through base rates as determined from the CIP Tracker account balance for a designated period. All costs appropriately charged to the CIP Tracker Account shall be eligible for recovery through this Rider and all revenues received from the CIP Adjustment shall be credited to the CIP Tracker Account.

T

Projected Retail Sales shall be the estimated kilowatt-hour sales for the designated recovery period excluding sales to CIP exempt customers.

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**DETERMINATION OF CONSERVATION IMPROVEMENT PROGRAM EXEMPTION ADJUSTMENT**

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |





Northern States Power Company  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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**SURCHARGE RIDER**

Section No. 5  
Original Sheet No. 93  
Relocated from MPUC No. 1 Sheet No. 5-60

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A surcharge will be included in the monthly customer bills in Minnesota communities in an amount equal to any franchise gross earnings or other fee, permit or usage fee, excise, city sales or other charge or tax now or hereafter imposed upon Company by a community, whether by ordinance, franchise or otherwise, applicable to electric service supplied by Company to a customer.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**SURCHARGE RIDER**

Section No. 5  
Original Sheet No. 93

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A surcharge will be included in the monthly customer bills in Minnesota communities in an amount equal to any franchise gross earnings or other fee, permit or usage fee, excise, city sales or other charge or tax now or hereafter imposed upon Company by a community, whether by ordinance, franchise or otherwise, applicable to electric service supplied by Company to a customer.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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**UNDERGROUND SERVICE RIDER (CLOSED)**

Section No. 5  
Original Sheet No. 94  
Relocated from MPUC No. 1 Sheet No. 5-61

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**AVAILABILITY**

Available to Residential Service customers who were taking service under the underground residential distribution clause on May 15, 1974. Service under this Rider will not be available to such an existing customer who on or after May 15, 1974, elects to take service under another applicable rate for which he qualifies. Service under this Rider will not be available to a successor customer or a new installation.

**RIDER**

For service through underground facilities which are installed, owned, and maintained by Company, a charge of \$2.00 will be added to the monthly bill for a period of not to exceed 30 years from date of installation. In lieu of the monthly charge, a non-refundable payment of \$220.00 may be made at any time. Such payment for any residence served hereunder shall apply to that residence only and shall relieve the customer and any successor customer at that residence of any obligation to pay a monthly underground charge thereafter.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E, G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO.**

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**UNDERGROUND SERVICE RIDER (CLOSED)**

Section No. 5  
1st Revised Sheet No. 94  
5-61

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**CANCELED**

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

LOW INCOME ENERGY DISCOUNT RIDER

Section No. 5  
1st Revised Sheet No. 95

AVAILABILITY

Available to any residential customer who is certified and receiving assistance from the Low Income Home Energy Assistance Program (LIHEAP) during the federal fiscal year. Customers must receive certification annually through authorized LIHEAP agencies to be eligible for this discount Rider.

RATE

Eligible Seniors and / or Disabled. For average daily use up to the first 10.0 kWh, energy is billed at 50% of the applicable energy charge. For all energy in excess of the 10.0 kWh average daily use, the energy is billed according to the applicable energy charge.

For qualified customers on Residential Time of Day Service or Residential Time of Day Service - Underground, 50% of the applicable on peak and off peak energy charges will be applied to the corresponding average on peak daily use up to 5 kWh and average off peak daily use up to 5 kWh in computing the discount amount.

Eligible Seniors and / or Disabled, and Customers Under 62 Years of Age With No Disability.

A customer using more than 3% of their annual household income for electric use may be eligible for the Company's affordability program. The Company will offer customers with the lowest income, and a history of electric consumption that exceeds the residential average of 750 kWh per month, an affordable monthly bill. For a customer to be eligible for a supplemental reduction in their electric bill, the customer must agree to affordable monthly payments.

TERMS AND CONDITIONS OF SERVICE

1. The company will review current billing information, approved LIHEAP benefits and household income to make payment arrangements with the customer. A mutually agreed to payment plan will be offered to the customer and a payment schedule provided.
2. Customer must maintain an active account registered under customer's name with the Company to be eligible for this discount Rider.
3. Customers receiving assistance from LIHEAP with electric service through one meter for domestic and non-domestic purposes jointly may be eligible for this Discount Rider subject to Company's verification and approval. The Company shall determine the kWh use that is for domestic purposes. This Discount Rider only applies to kWh use for domestic purposes.
4. Qualified customers are only eligible to receive an energy discount under this Rider at one residential location at any one time and the discount only applies to a qualified customer's permanent primary residence. This Rider will not be available when, in the opinion of the Company, the customer's accommodation or occupancy is of temporary nature.

(Continued on Sheet No. 5-96)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-26-05

Docket No. E002/M-04-1956

Order Date: 04-26-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**LOW INCOME ENERGY DISCOUNT RIDER**

Section No. 5  
2nd Revised Sheet No. 95

**AVAILABILITY**

Available to any residential customer who is certified and receiving assistance from the Low Income Home Energy Assistance Program (LIHEAP) during the federal fiscal year. Customers must receive certification annually through authorized LIHEAP agencies to be eligible for this discount Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**RATE**

Eligible Seniors and / or Disabled. For average daily use up to the first 10.0 kWh, energy is billed at 50% of the applicable energy and fuel clause adjustment charges. For all energy in excess of the 10.0 kWh average daily use, the energy is billed according to the applicable energy and fuel clause adjustment charges.

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For qualified customers on Residential Time of Day Service or Residential Time of Day Service - Underground, 50% of the applicable on peak and off peak energy and fuel clause adjustment charges will be applied to the corresponding average on peak daily use up to 5 kWh and average off peak daily use up to 5 kWh in computing the discount amount.

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Eligible Seniors and / or Disabled, and Customers Under 62 Years of Age with no Disability.

A customer using more than 3% of their annual household income for electric use may be eligible for the Company's affordability program. The Company will offer customers with the lowest income, and a history of electric consumption that exceeds the residential average of 750 kWh per month, an affordable monthly bill. For a customer to be eligible for a supplemental reduction in their electric bill, the customer must agree to affordable monthly payments.

**TERMS AND CONDITIONS OF SERVICE**

1. The company will review current billing information, approved LIHEAP benefits and household income to make payment arrangements with the customer. A mutually agreed to payment plan will be offered to the customer and a payment schedule provided.
2. Customer must maintain an active account registered under customer's name with the Company to be eligible for this discount Rider.
3. Customers receiving assistance from LIHEAP with electric service through one meter for domestic and non-domestic purposes jointly may be eligible for this Discount Rider subject to Company's verification and approval. The Company shall determine the kWh use that is for domestic purposes. This Discount Rider only applies to kWh use for domestic purposes.

(Continued on Sheet No. 5-96)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

**LOW INCOME ENERGY DISCOUNT RIDER**  
**(Continued)**

Section No. 5  
1st Revised Sheet No. 96

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

5. The discount shall be prospective and may not be applicable to past due bills or non-electric services.
6. An annual application and eligibility declaration is required for each request for service under this Rider. Without declaration of continuing eligibility, the discount ends in the September calendar month of each year.
7. It is the customer's responsibility to notify the Company if there is a change of address or eligibility status.
8. Discounts will be credited to the eligible customer bills one billing month after Company's receipt of notification of LIHEAP certification. The applicable discount under this Rider will be retroactive to the October billing month during that same LIHEAP fiscal year.
9. Refusal or failure of a customer or agencies to provide documentation of eligibility acceptable to the Company may result in removal from this Rider.
10. Customers may be rebilled for periods of ineligibility under the applicable rate schedule.
11. This Rider shall meet the conditions of Minnesota Statutes, Chapter 216B.16, Subd. 14 on low income discount rates.

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Date Filed: 12-10-04

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-26-05

Docket No. E002/M-04-1956

Order Date: 04-26-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**LOW INCOME ENERGY DISCOUNT RIDER**  
(Continued)

Section No. 5  
2nd Revised Sheet No. 96

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

4. Qualified customers are only eligible to receive an energy discount under this Rider at one residential location at any one time and the discount only applies to a qualified customer's permanent primary residence. This Rider will not be available when, in the opinion of the Company, the customer's accommodation or occupancy is of temporary nature.
5. The discount shall be prospective and may not be applicable to past due bills or non-electric services.
6. An annual application and eligibility declaration is required for each request for service under this Rider. Without declaration of continuing eligibility, the discount ends in the September calendar month of each year.
7. It is the customer's responsibility to notify the Company if there is a change of address or eligibility status.
8. Discounts will be credited to the eligible customer bills one billing month after Company's receipt of notification of LIHEAP certification. The applicable discount under this Rider will be retroactive to the October billing month during that same LIHEAP fiscal year.
9. Refusal or failure of a customer or agencies to provide documentation of eligibility acceptable to the Company may result in removal from this Rider.
10. Customers may be rebilled for periods of ineligibility under the applicable rate schedule.
11. This Rider shall meet the conditions of Minnesota Statutes, Chapter 216B.16, Subd. 14 on low income discount rates.

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06





Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RESIDENTIAL CONTROLLED AIR CONDITIONING AND  
WATER HEATING RIDER

Section No. 5  
3rd Revised Sheet No. 97

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**AVAILABILITY**

Available to Residential Service and Residential Service - Underground customers with:

1. Company controlled central air conditioning, or
2. Company controlled heat pumps receiving Energy Controlled Service (Non-Demand Metered) with optional non-interruptible service during June through September.

Company controlled electric water heating is also available to residential customers with a controlled central air conditioner or heat pump, except electric water heaters served with the Energy Controlled Service (Non-Demand Metered) rate schedule. Availability is limited to customers located in areas which are within the operating range of radio control transmitters.

**RIDER**

Residential Central Air Conditioning. A 15% discount will apply to the energy charge up to a maximum of 4,000 kWh per month during the billing months of June through September.

Residential Electric Water Heating. A 2% discount will apply to energy charges up to a maximum of 4,000 kWh per month during each billing month provided total energy use is not less than 300 kWh.

**TERMS AND CONDITIONS OF SERVICE**

1. The duration and frequency of interruptions will be determined by Company. Customer's air conditioning equipment will normally be cycled on a schedule designed to achieve a 50% reduction in the homes air conditioning requirements during load management period. Air conditioning interruptions will normally occur on high demand days during summer months. Water heating interruptions will normally occur on high demand days during summer and winter months. Interruption will normally be based on meeting peak demands and system economic dispatch requirements of Company. However, interruption may also occur at times when, in the Company's opinion, the reliability of the system may be at risk. Air conditioning and water heating interruptions will not normally occur during the observation day of the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. The interruptions as described above, will be made so as to benefit native load and may occur up to a maximum of 300 hours per calendar year.
2. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
3. To be eligible for this service, customer must agree to Company load control for a minimum term of one year.

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(Continued on Sheet No. 5-98)

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Date Filed: 03-08-04

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 05-26-04

Docket No. E002/M-04-370

Order Date: 05-26-04

**RESIDENTIAL CONTROLLED AIR CONDITIONING AND  
WATER HEATING RIDER**

Section No. 5  
3rd Revised Sheet No. 97

**AVAILABILITY**

Available to Residential Service customers with:

1. Company controlled central air conditioning, or
2. Company controlled heat pumps receiving Energy Controlled Service (Non-Demand Metered) with optional non-interruptible service during June through September.

Company controlled electric water heating is also available to residential customers with a controlled central air conditioner or heat pump, except electric water heaters served with the Energy Controlled Service (Non-Demand Metered) rate schedule. Availability is limited to customers located in areas which are within the operating range of radio control transmitters.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**RIDER**

Residential Central Air Conditioning. A 15% discount will apply to the energy and fuel clause adjustment charges up to a maximum of 4,000 kWh per month during the billing months of June through September.

Residential Electric Water Heating. A 2% discount will apply to energy and fuel clause adjustment charges up to a maximum of 4,000 kWh per month during each billing month provided total energy use is not less than 300 kWh.

**TERMS AND CONDITIONS OF SERVICE**

1. The duration and frequency of interruptions will be determined by Company. Customer's air conditioning equipment will normally be cycled on a schedule designed to achieve a 50% reduction in the homes air conditioning requirements during load management period. Air conditioning interruptions will normally occur on high demand days during summer months. Water heating interruptions will normally occur on high demand days during summer and winter months. Interruption will normally be based on meeting peak demands and system economic dispatch requirements of Company. However, interruption may also occur at times when, in the Company's opinion, the reliability of the system may be at risk. Air conditioning and water heating interruptions will not normally occur during the observation day of the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. The interruptions as described above, will be made so as to benefit native load and may occur up to a maximum of 300 hours per calendar year.
2. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
3. To be eligible for this service, customer must agree to Company load control for a minimum term of one year.

(Continued on Sheet No. 5-98)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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RESIDENTIAL CONTROLLED AIR CONDITIONING AND  
WATER HEATING RIDER (Continued)

Section No. 5  
Original Sheet No. 98  
Relocated from MPUC No. 1 Sheet No. 5-12

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TERMS AND CONDITIONS OF SERVICE (Continued)

4. The storage capacity of the water heater shall be 40 gallons or more in order to be eligible for this service.
5. The residential central air conditioning energy charge discount for Energy Controlled Service (Non-Demand Metered) customers will also apply to their standard service energy charge.
6. Rider availability for heat pump installations is limited to those sized for summer cooling requirements, as determined by Company.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**RESIDENTIAL CONTROLLED AIR CONDITIONING AND  
WATER HEATING RIDER (Continued)**

Section No. 5  
Original Sheet No. 98

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

4. The storage capacity of the water heater shall be 40 gallons or more in order to be eligible for this service.
5. The residential central air conditioning energy charge discount for Energy Controlled Service (Non-Demand Metered) customers will also apply to their standard service energy charge.
6. Rider availability for heat pump installations is limited to those sized for summer cooling requirements, as determined by Company.

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

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COMMERCIAL AND INDUSTRIAL  
CONTROLLED AIR CONDITIONING RIDER

Section No. 5  
3rd Revised Sheet No. 99

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**AVAILABILITY**

Available to non-residential customers with Company controlled central air conditioning. Availability is restricted to customers with single and/or dual stage air conditioning units.

**RIDER**

A \$5.00 per ton per month credit shall be applied to customer's bill during each of the four summer billing months (June through September).

**TERMS AND CONDITIONS OF SERVICE**

1. The duration and frequency of interruptions will be determined by the Company. Customer single and dual stage air conditioners will be cycled on a schedule designed to achieve a 50% reduction in the building air conditioning requirements during a load management period. Dual stage air conditioners will be allowed to have the first stage run without interruption while the second stage will be shut off for the entire load management period. Air conditioning interruptions will normally occur on high demand days during summer months. Interruption will normally be based on meeting peak demands and system economic dispatch requirements of Company. However, interruption may also occur at times when, in the Company's opinion, the reliability of the system may be at risk. Air conditioning interruptions will not normally occur during the observation day of the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. The interruptions as described above, will be made so as to benefit native load and may occur up to a maximum of 300 hours per calendar year.
2. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
3. To be eligible for this service, customer must be on Small General Service, Small General Time of Day Service, General Service, or General Time of Day Service and customer must agree to Company load control for no less than one year.
4. Rider will not be available to customers that have an air conditioning system which significantly exceeds summer cooling requirements, as determined by Company.
5. Company will normally control every air conditioning unit at the customer's building. Subject to Company approval, customers may exclude individual air conditioning units from Company control where those units serve either a sufficiently isolated area within a building or a separate building.
6. Availability is limited to customers located within the operating range of radio control transmitters.
7. Those air conditioning units that the Company is not able to install equipment on will be excluded.

(Continued on Sheet No. 5-99.1)

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Date Filed: 02-08-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-20-05

Docket No. E002/M-05-0239

Order Date: 04-05-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**COMMERCIAL AND INDUSTRIAL  
CONTROLLED AIR CONDITIONING RIDER**

Section No. 5  
3rd Revised Sheet No. 99

---

**AVAILABILITY**

Available to non-residential customers with Company controlled central air conditioning. Availability is restricted to customers with single and/or dual stage air conditioning units.

**RIDER**

A \$5.00 per ton per month credit shall be applied to customer's bill during each of the four summer billing months (June through September).

**TERMS AND CONDITIONS OF SERVICE**

1. The duration and frequency of interruptions will be determined by the Company. Customer single and dual stage air conditioners will be cycled on a schedule designed to achieve a 50% reduction in the building air conditioning requirements during a load management period. Dual stage air conditioners will be allowed to have the first stage run without interruption while the second stage will be shut off for the entire load management period. Air conditioning interruptions will normally occur on high demand days during summer months. Interruption will normally be based on meeting peak demands and system economic dispatch requirements of Company. However, interruption may also occur at times when, in the Company's opinion, the reliability of the system may be at risk. Air conditioning interruptions will not normally occur during the observation day of the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. The interruptions as described above, will be made so as to benefit native load and may occur up to a maximum of 300 hours per calendar year.
2. Company shall not be liable for any loss or damage caused by or resulting from any interruption of service.
3. To be eligible for this service, customer must be on Small General Service, Small General Time of Day Service, General Service, or General Time of Day Service and customer must agree to Company load control for no less than one year.
4. Rider will not be available to customers that have an air conditioning system which significantly exceeds summer cooling requirements, as determined by Company.
5. Company will normally control every air conditioning unit at the customer's building. Subject to Company approval, customers may exclude individual air conditioning units from Company control where those units serve either a sufficiently isolated area within a building or a separate building.
6. Availability is limited to customers located within the operating range of radio control transmitters.
7. Those air conditioning units that the Company is not able to install equipment on will be excluded.

(Continued on Sheet No. 5-99.1)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

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COMMERCIAL AND INDUSTRIAL  
CONTROLLED AIR CONDITIONING RIDER (Continued)

Section No. 5  
Original Sheet No. 99.1

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TERMS AND CONDITIONS OF SERVICE (Continued)

8. If the Company determines that its load management equipment on the customer's premises has been rendered ineffective due to tampering by use of mechanical, electrical, or other devices or actions, then the Company may discontinue the customer's participation in the program. The customer would be billed for all expenses involved with the removal of the load management equipment and any charges resulting from the investigation of the device tampering. The Company may rebill all prior load management credits received by the customer to the date the tampering appears to have first occurred or the previous twelve months, which ever is longer. The customer will be removed from the program and is not eligible to participate again for twelve months. The Company will verify installation has been corrected before the customer is permitted to participate in the program.

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Date Filed: 02-08-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Order Date: 04-05-05

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**COMMERCIAL AND INDUSTRIAL  
CONTROLLED AIR CONDITIONING RIDER (Continued)**

Section No. 5  
Original Sheet No. 99.1

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

8. If the Company determines that its load management equipment on the customer's premises has been rendered ineffective due to tampering by use of mechanical, electrical, or other devices or actions, then the Company may discontinue the customer's participation in the program. The customer would be billed for all expenses involved with the removal of the load management equipment and any charges resulting from the investigation of the device tampering. The Company may rebill all prior load management credits received by the customer to the date the tampering appears to have first occurred or the previous twelve months, which ever is longer. The customer will be removed from the program and is not eligible to participate again for twelve months. The Company will verify installation has been corrected before the customer is permitted to participate in the program.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
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| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |





Northern States Power Company  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**OFF SEASON LOAD RIDER**

Section No. 5

Original Sheet No. 100

Relocated from MPUC No. 1 Sheet No. 5-27

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**AVAILABILITY**

Available to any General Service customer whose maximum monthly demand occurs during the usage months of April, May, October, or November. Typical applications would be agricultural grain drying and handling loads.

**RATE**

The General Service rate provisions apply except the adjusted demands established during the usage months of April, May, October, and November are not included in determining the 50% demand ratchet contained in the General Service determination of demand provision.

**TERMS AND CONDITIONS OF SERVICE**

1. The customer's usage months for this Rider must be contained by the following meter reading schedule.  
The two month fall season begins no earlier than the billing cycle 11 meter reading date in mid-September and ends no later than the billing cycle 10 meter reading date in mid-December. The two month spring season begins no earlier than the billing cycle 11 meter reading date in mid-March and ends no later than the billing cycle 10 meter reading date in mid-June..
2. Customer must compensate Company for the costs associated with local distribution facilities required to serve customer load during the months of April, May, October, and November, which is in excess of customer's base load during the remaining months.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**OFF SEASON LOAD RIDER**

Section No. 5  
Original Sheet No. 100

---

**AVAILABILITY**

Available to any General Service customer whose maximum monthly demand occurs during the usage months of April, May, October, or November. Typical applications would be agricultural grain drying and handling loads.

**RATE**

The General Service rate provisions apply except the adjusted demands established during the usage months of April, May, October, and November are not included in determining the 50% demand ratchet contained in the General Service determination of demand provision.

**TERMS AND CONDITIONS OF SERVICE**

1. The customer's usage months for this Rider must be contained by the following meter reading schedule. The two month fall season begins no earlier than the billing cycle 11 meter reading date in mid-September and ends no later than the billing cycle 10 meter reading date in mid-December. The two month spring season begins no earlier than the billing cycle 11 meter reading date in mid-March and ends no later than the billing cycle 10 meter reading date in mid-June.
2. Customer must compensate Company for the costs associated with local distribution facilities required to serve customer load during the months of April, May, October, and November, which is in excess of customer's base load during the remaining months.

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

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Order Date: 09-01-06

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STANDBY SERVICE RIDER

Section No. 5  
6th Revised Sheet No. 101

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**AVAILABILITY**

Available to any non-residential customer who has an alternative source of electric energy supply which normally serves all or a portion of the customer's electrical load requirements and who desires use of the Company's electric service for temporary backup or maintenance power. Under this service the Company will provide a permanent service connection to supply the customer's contracted load in accordance with the provisions in the General Rules and Regulations, Section 2.4.

**RESERVATION FEES**

|                                                                                                                                                             | <u>Firm Standby</u>                |                                  |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|-----------------------------|
|                                                                                                                                                             | <u>Unscheduled<br/>Maintenance</u> | <u>Scheduled<br/>Maintenance</u> | <u>Non-Firm<br/>Standby</u> |
| Customer Charge per Month                                                                                                                                   | \$17.39                            | \$17.39                          | \$17.39                     |
| Demand Charge per Month per kW<br>of Contracted Standby Capacity                                                                                            |                                    |                                  |                             |
| Secondary Voltage Service                                                                                                                                   | \$3.25                             | \$3.15                           | \$2.35                      |
| Primary Voltage Service                                                                                                                                     | \$2.30                             | \$2.20                           | \$1.40                      |
| Transmission Transformed Voltage Service                                                                                                                    | \$1.50                             | \$1.40                           | \$0.60                      |
| Transmission Voltage Service                                                                                                                                | \$0.90                             | \$0.80                           | \$0.00                      |
| Annual Allowed Grace Period of Unscheduled Use of<br>Standby Service for Exemption from Demand Usage<br>Rates (Hours per kW of Contracted Standby Capacity) | 964                                | 964                              | 0                           |

**USAGE RATES**

Demand Charge per Month per kW of Standby Capacity Used. Capacity actually used under this Rider will be charged at the same demand rate as contained in the base tariff to which this Rider is attached.

Energy Charge per kWh of Standby Energy Used. Energy actually used under this Rider will be charged at the same energy rate as contained in the base tariff to which this Rider is attached.

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

(Continued on Sheet No. 5-102)

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|                           |                                            |                          |
|---------------------------|--------------------------------------------|--------------------------|
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|                           | Vice President of Jurisdictional Relations |                          |
| Docket No. E002/M-02-2097 |                                            | Order Date: 01-04-05     |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**STANDBY SERVICE RIDER**

Section No. 5  
7th Revised Sheet No. 101

**AVAILABILITY**

Available to any non-residential customer who has an alternative source of electric energy supply which normally serves all or a portion of the customer's electrical load requirements and who desires use of the Company's electric service for temporary backup or maintenance power. Under this service the Company will provide a permanent service connection to supply the customer's contracted load in accordance with the provisions in the General Rules and Regulations, Section 2.4.

**RESERVATION FEES**

|                                                                                                                                                             | <u>Firm Standby</u>                |                                  |                             |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|-----------------------------|----|
|                                                                                                                                                             | <u>Unscheduled<br/>Maintenance</u> | <u>Scheduled<br/>Maintenance</u> | <u>Non-Firm<br/>Standby</u> |    |
| Customer Charge per Month                                                                                                                                   | \$22.00                            | \$22.00                          | \$22.00                     | R  |
| Demand Charge per Month per kW<br>of Contracted Standby Capacity                                                                                            |                                    |                                  |                             |    |
| Distribution Standby Capacity Fee                                                                                                                           |                                    |                                  |                             | T  |
| Secondary Voltage Service                                                                                                                                   | \$2.20                             | \$2.20                           | \$2.20                      | R  |
| Primary Voltage Service                                                                                                                                     | \$1.65                             | \$1.65                           | \$1.65                      | R  |
| Transmission Transformed Voltage Service                                                                                                                    | \$0.90                             | \$0.90                           | \$0.90                      | R  |
| Transmission Voltage Service                                                                                                                                | \$0.00                             | \$0.00                           | \$0.00                      | R  |
| Transmission Standby Capacity Fee                                                                                                                           | OATT Rate                          | OATT Rate                        | OATT Rate                   | NR |
| Generation Standby Capacity Reservation Fee                                                                                                                 | \$0.60                             | \$0.50                           | \$0.00                      | NR |
| Annual Allowed Grace Period of Unscheduled Use of<br>Standby Service for Exemption from Demand Usage<br>Rates (Hours per kW of Contracted Standby Capacity) | 964                                | 964                              | 0                           |    |

**USAGE RATES**

Demand Charge per Month per kW of Standby Capacity Used. Capacity actually used under this Rider will be charged at the same demand rate as contained in the base tariff to which this Rider is attached.

Energy Charge per kWh of Standby Energy Used. Energy actually used under this Rider will be charged at the same energy rate as contained in the base tariff to which this Rider is attached.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No. 5-102)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

STANDBY SERVICE RIDER (Continued)

Section No. 5  
2<sup>nd</sup> Revised Sheet No. 102

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

For billing purposes, the customer demand for this Standby Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Standby Service the Company is obligated to supply with the maximum value for a customer's Contracted Standby Capacity being the amount of load served on-site by the customer's generation, but in no case more than the capacity of the customer's generation facility. This quantity may be different between the summer and winter seasons. For applying the Usage Rate, the demand will be the smaller of the following two amounts: (1) the amount of the Standby capacity contracted for by the customer minus the actual demand supplied by the customer's own generating facilities, but not less than zero, or (2) the amount of actual capacity supplied by the Company. This amount of used Standby service demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff including any demand ratchet provisions of that base tariff.

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**TERMS AND CONDITIONS OF SERVICE**

1. Standby Service Rider is applicable to any non-residential customer who requires 40 kW or more of Standby capacity from the Company. Standby Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules, however, customer will always be permitted to implement demand side load reductions or use alternative generation capacity when necessary, due to full or partial outage of the customer's generator, instead of using Standby Service from the Company.
2. Customer will execute an Electric Service Agreement with the Company which will specify:
  - a. Type of Standby Service elected by the customer and the base tariff that this Rider is attached to and under which demand and energy rates will be selected during months Standby power is used.
  - b. The total Standby capacity requirements for which Company will be providing Standby power and to which the Standby Service reservation fee applies as well as the expected level of firm service the customer will take, even if that level is zero.

(Continued on Sheet No. 5-103)

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By: Kent T. Larson

Effective Date: 07-14-06

Vice President, Customer and Community Relations

Docket No. E,G002/M-01-937

Order Date: 07-14-06

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STANDBY SERVICE RIDER (Continued)

Section No. 5  
3rd Revised Sheet No. 102

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

For billing purposes, the customer demand for this Standby Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Standby Service the Company is obligated to supply with the maximum value for a customer's Contracted Standby Capacity being the amount of load served on-site by the customer's generation, but in no case more than the capacity of the customer's generation facility. This quantity may be different between the summer and winter seasons. For applying the Usage Rate, the demand will be the smaller of the following two amounts: (1) the amount of the Standby capacity contracted for by the customer minus the actual demand supplied by the customer's own generating facilities, but not less than zero, or (2) the amount of actual capacity supplied by the Company. This amount of used Standby service demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff including any demand ratchet provisions of that base tariff.

**TERMS AND CONDITIONS OF SERVICE**

1. Standby Service Rider is applicable to any non-residential customer who requires 40 kW or more of Standby capacity from the Company. Standby Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules, however, customer will always be permitted to implement demand side load reductions or use alternative generation capacity when necessary, due to full or partial outage of the customer's generator, instead of using Standby Service from the Company.

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(Continued on Sheet No. 5-103)

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

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**STANDBY SERVICE RIDER (Continued)**

Section No. 5  
4th Revised Sheet No. 102

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF DEMAND**

For billing purposes, the customer demand for this Standby Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Standby Service the Company is obligated to supply with the maximum value for a customer's Contracted Standby Capacity being the amount of load served on-site by the customer's generation, but in no case more than the capacity of the customer's generation facility. This quantity may be different between the summer and winter seasons. For applying the Usage Rate, the demand will be the smaller of the following two amounts: (1) the amount of the Standby capacity contracted for by the customer minus the actual demand supplied by the customer's own generating facilities, but not less than zero, or (2) the amount of actual capacity supplied by the Company. This amount of used Standby service demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff including any demand ratchet provisions of that base tariff.

**TERMS AND CONDITIONS OF SERVICE**

1. Standby Service Rider is applicable to any non-residential customer who requires 40 kW or more of Standby capacity from the Company. Standby Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules, however, customer will always be permitted to implement demand side load reductions or use alternative generation capacity when necessary, due to full or partial outage of the customer's generator, instead of using Standby Service from the Company.

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(Continued on Sheet No. 5-103)

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By: Cynthia L. Leshner

Effective Date: 05-01-07

President and CEO of Northern States Power Company

Docket No. E002/M-06-1505

Order Date: 03-29-07



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STANDBY SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 103  
Relocated from MPUC No. 1 Sheet No. 5-28.1 &  
5-28.2

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TERMS AND CONDITIONS OF SERVICE (Continued)

3. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.
4. Company will not be obligated to supply Standby Service to back-up a customer's generator at a level in excess of the Standby capacity for which customer has contracted. This restriction in no way limits the amount of load for which a customer may require service from the Company under the base tariff to which this Rider is attached.
5. Customer will be liable for all damages allowed by law to the extent caused by customer's use of Standby power in excess of contracted Standby capacity.
6. Company will require customer to contract for additional Standby and Supplemental capacity if the customer exceeds the contract amount in any three of the preceding 12 months.
7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Standby Service. The Company and the customer will review the actual output and performance of the power source relative to the capacity nominated for Standby Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within the customer's control, the Company will notify the customer of its intent to refuse to provide Standby Service. Upon receipt of such notice, the customer may agree to reduce the Standby Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Standby Service capacity. If the customer's power source does not operate at or reasonably near that level during the 12 months immediately following the Company's notice, the Company may refuse to provide Standby Service until such time as the customer agrees to reduce its Standby Service nomination or provide the Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Standby Service capacity for a trial period of three consecutive months.
8. Customer will remain on Standby Service for a period of not less than 12 months.

(Continued on Sheet No. 5-104)

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By: James M. Ashley  
General Manager, Marketing and Sales

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**STANDBY SERVICE RIDER (Continued)**

Section No. 5  
1st Revised Sheet No. 103

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

2. Customer will execute an Electric Service Agreement with the Company which will specify:
  - a. Type of Standby Service elected by the customer and the base tariff that this Rider is attached to and under which demand and energy rates will be selected during months Standby power is used.
  - b. The total Standby capacity requirements for which Company will be providing Standby power and to which the Standby Service reservation fee applies as well as the expected level of firm service the customer will take, even if that level is zero.
3. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.
4. Company will not be obligated to supply Standby Service to back-up a customer's generator at a level in excess of the Standby capacity for which customer has contracted. This restriction in no way limits the amount of load for which a customer may require service from the Company under the base tariff to which this Rider is attached.
5. Customer will be liable for all damages allowed by law to the extent caused by customer's use of Standby power in excess of contracted Standby capacity.
6. Company will require customer to contract for additional Standby and Supplemental capacity if the customer exceeds the contract amount in any three of the preceding 12 months.
7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Standby Service. The Company and the customer will review the actual output and performance of the power source relative to the capacity nominated for Standby Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within the customer's control, the Company will notify the customer of its intent to refuse to provide Standby Service. Upon receipt of such notice, the customer may agree to reduce the Standby Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Standby Service capacity. If the customer's power source does not operate at or reasonably near that level during the 12 months immediately following the Company's notice, the Company may refuse to provide Standby Service until such time as the customer agrees to reduce its Standby Service nomination or provide the Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Standby Service capacity for a trial period of three consecutive months.
8. Customer will remain on Standby Service for a period of not less than 12 months.

(Continued on Sheet No. 5-104)

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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STANDBY SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 104  
Relocated from MPUC No. 1 Sheet No. 5-28.2 &  
5-28.3

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TERMS AND CONDITIONS OF SERVICE (Continued)

9. Customer will be allowed annually a grace period as specified above for use of unscheduled Standby Service without incurring additional demand charges for use of Standby Service. Use of this grace period will be measured in terms of Standby energy used by customer with the maximum amount of grace energy being the hours specified above times the contracted Standby capacity. After the grace period has been exhausted and customer uses unscheduled Standby Service, the customer shall pay the Usage Rates instead of the Reservation Fees as listed above. In a billing month, when customer uses Standby Service, the base tariff billing demand and the Standby Service billing demand will be determined individually. The base tariff billing demand will be the greatest 15 minute load determined after separating Standby Service usage from the total metered demands. The time of this determined greatest 15 minute demand may or may not be at the same time when Standby Service is used. Billed demand charges for usage of Standby Service will be in addition to the billed demand charges for the base tariff as just described.
10. Notwithstanding the grace period noted in Section 9 above, in the event customer requires unscheduled Standby Service at the times of Company's system peak hours in which the Company would have insufficient accredited capacity under the Mid-Continent Area Power Pool (MAPP) Agreement, if not for additional capacity purchases, and the Company incurs additional capacity costs as a result of such unscheduled Standby Service, customer shall pay peak demand charges for the month in which such unscheduled Standby Service occurs and for each of the five succeeding months instead of the above listed demand charges, or the demand charges under Section 9 above. Such peak demand charges shall be based upon the following:
  - a. If customer has notified Company of an unscheduled outage at least three hours prior to Company's system peak hour, such peak demand charges shall be based on one-sixth of any additional capacity costs incurred by the Company as a result of the unscheduled outage. Such additional capacity costs shall not include any MAPP after-the-fact capacity purchase costs incurred by the Company.
  - b. If customer has not notified the Company of any unscheduled outage at least three hours prior to the Company's system peak hour, such peak demand charges shall be based on one-sixth of any additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company as a result of the unscheduled outage. The demand for billing purposes for the succeeding five months shall be equal to the demand placed on the system during the time of the Company's system peak hour.

(Continued on Sheet No. 5-105)

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General Manager, Marketing and Sales

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**STANDBY SERVICE RIDER (Continued)**

Section No. 5  
Original Sheet No. 104

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

9. Customer will be allowed annually a grace period as specified above for use of unscheduled Standby Service without incurring additional demand charges for use of Standby Service. Use of this grace period will be measured in terms of Standby energy used by customer with the maximum amount of grace energy being the hours specified above times the contracted Standby capacity. After the grace period has been exhausted and customer uses unscheduled Standby Service, the customer shall pay the Usage Rates instead of the Reservation Fees as listed above. In a billing month, when customer uses Standby Service, the base tariff billing demand and the Standby Service billing demand will be determined individually. The base tariff billing demand will be the greatest 15 minute load determined after separating Standby Service usage from the total metered demands. The time of this determined greatest 15 minute demand may or may not be at the same time when Standby Service is used. Billed demand charges for usage of Standby Service will be in addition to the billed demand charges for the base tariff as just described.
10. Notwithstanding the grace period noted in Section 9 above, in the event customer requires unscheduled Standby Service at the times of Company's system peak hours in which the Company would have insufficient accredited capacity under the Mid-Continent Area Power Pool (MAPP) Agreement, if not for additional capacity purchases, and the Company incurs additional capacity costs as a result of such unscheduled Standby Service, customer shall pay peak demand charges for the month in which such unscheduled Standby Service occurs and for each of the five succeeding months instead of the above listed demand charges, or the demand charges under Section 9 above. Such peak demand charges shall be based upon the following:
  - a. If customer has notified Company of an unscheduled outage at least three hours prior to Company's system peak hour, such peak demand charges shall be based on one-sixth of any additional capacity costs incurred by the Company as a result of the unscheduled outage. Such additional capacity costs shall not include any MAPP after-the-fact capacity purchase costs incurred by the Company.
  - b. If customer has not notified the Company of any unscheduled outage at least three hours prior to the Company's system peak hour, such peak demand charges shall be based on one-sixth of any additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company as a result of the unscheduled outage. The demand for billing purposes for the succeeding five months shall be equal to the demand placed on the system during the time of the Company's system peak hour.

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(Continued on Sheet No. 5-105)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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STANDBY SERVICE RIDER (Continued)

Section No. 5

Original Sheet No. 105

Relocated from MPUC No. 1 Sheet No. 5-28.3

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TERMS AND CONDITIONS OF SERVICE (Continued)

11. In the event any portion of the capacity associated with the additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company and attributable to the customer under Section 10 above are subsequently used to satisfy the Company's MAPP requirements for the Company's customers, the peak demand charges under Section 10 shall be discounted with respect to that portion subsequently used by the Company's customers.
12. The Company shall provide notice to the Standby customers when peak load conditions are expected to occur through the same means that the Company notifies interruptible customers of the potential interruption.
13. Company will install and charge customer for the metering necessary, as determined by the Company, to allow for proper billing of the separate base tariff and Standby Rider demands and grace period identified above. Customer shall reimburse the Company for the costs of installing, operating, and maintaining these meters and any other facilities required to serve the customer's Standby load. Such required additional equipment shall include the metering equipment used to measure the electrical output of the customers' alternative source of electric energy supply. In particular, the Company will install a meter that measures the flow of power and energy from the customer's own generating facility. If, as a result of the customer's construction and installation of their generating facility, it is more practical or economical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so subject to Company's approval of an installation plan for such equipment.

(Continued on Sheet No. 5-106)

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General Manager, Marketing and Sales

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STANDBY SERVICE RIDER (Continued)

Section No. 5  
1st Revised Sheet No. 105

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TERMS AND CONDITIONS OF SERVICE (Continued)

The provisions of this Section 10 shall not apply if the Company has obtained appropriate generation accreditation for the customer's generation from the Midwest Reliability Organization (MRO) and MAPP, or any successor organization. Customer will cooperate fully and assist in the preparation of the information necessary for the accreditation filing to MAPP. Failure of customer to assist in the preparation of the information and/or failure to obtain accreditation of the customer's generation by MAPP will result in the customer being ineligible for the exemption from the provisions of this Section 10.

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11. In the event any portion of the capacity associated with the additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company and attributable to the customer under Section 10 above are subsequently used to satisfy the Company's MAPP requirements for the Company's customers, the peak demand charges under Section 10 shall be discounted with respect to that portion subsequently used by the Company's customers.
12. The Company shall provide notice to the Standby customers when peak load conditions are expected to occur through the same means that the Company notifies interruptible customers of the potential interruption.
13. Company will install and charge customer for the metering necessary, as determined by the Company, to allow for proper billing of the separate base tariff and Standby Rider demands and grace period identified above. Customer shall reimburse the Company for the costs of installing, operating, and maintaining these meters and any other facilities required to serve the customer's Standby load. Such required additional equipment shall include the metering equipment used to measure the electrical output of the customers' alternative source of electric energy supply. In particular, the Company will install a meter that measures the flow of power and energy from the customer's own generating facility. If, as a result of the customer's construction and installation of their generating facility, it is more practical or economical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so subject to Company's approval of an installation plan for such equipment.

(Continued on Sheet No. 5-106)

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STANDBY SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 106

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**ADDITIONAL TERMS AND CONDITIONS OF SERVICE WITH FIRM STANDBY SCHEDULED MAINTENANCE**

1. Scheduled maintenance rates are available to Standby Service customers who agree to schedule maintenance of their power source during qualifying scheduled maintenance periods.
2. Qualifying Scheduled Maintenance Periods

Customers With 40 kW to 10,000 kW of Contracted Standby Capacity. Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby Capacity. Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, and at those times when Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

| <u>Outage Length</u> | <u>Required Notice</u> |
|----------------------|------------------------|
| Less than 48 hours   | 24 hours               |
| 2 days to 30 days    | 7 days                 |
| Over 30 days         | 90 days                |

3. The duration of qualifying scheduled maintenance periods may not exceed a total of six weeks in any 12 month period.
4. An additional charge shall apply if customer does not comply with all terms and conditions for qualifying scheduled maintenance periods. The additional charge shall be determined by calculating the additional charges which would have applied if customer were billed on the Unscheduled Maintenance Option for the period extending back to the customer's last scheduled maintenance period.
5. General Service or General Time of Day Service demand charges shall not apply to use during qualifying scheduled maintenance periods. Further, qualifying scheduled maintenance period time and energy will not count against the grace period.

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(Continued on Sheet No. 5-107)

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By: Kent T., Larson  
State Vice President – Minnesota & Dakotas

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**STANDBY SERVICE RIDER (Continued)**

Section No. 5  
1st Revised Sheet No. 106

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**ADDITIONAL TERMS AND CONDITIONS OF SERVICE WITH FIRM STANDBY SCHEDULED MAINTENANCE**

1. Scheduled maintenance rates are available to Standby Service customers who agree to schedule maintenance of their power source during qualifying scheduled maintenance periods.
2. Qualifying Scheduled Maintenance Periods

Customers With 40 kW to 10,000 kW of Contracted Standby Capacity. Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby Capacity. Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, and at those times when Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

| <u>Outage Length</u> | <u>Required Notice</u> |
|----------------------|------------------------|
| Less than 48 hours   | 24 hours               |
| 2 days to 30 days    | 7 days                 |
| Over 30 days         | 90 days                |

3. The duration of qualifying scheduled maintenance periods may not exceed a total of six weeks in any 12 month period.
4. An additional charge shall apply if customer does not comply with all terms and conditions for qualifying scheduled maintenance periods. The additional charge shall be determined by calculating the additional charges which would have applied if customer were billed on the Unscheduled Maintenance Option for the period extending back to the customer's last scheduled maintenance period.
5. General Service or General Time of Day Service demand charges shall not apply to use during qualifying scheduled maintenance periods. Further, qualifying scheduled maintenance period time and energy will not count against the grace period.

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(Continued on Sheet No. 5-107)

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STANDBY SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 107  
Relocated from MPUC No. 1 Sheet No. 5-29

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**ADDITIONAL TERMS AND CONDITIONS OF SERVICE FOR NON-FIRM STANDBY OPTION**

1. Non-firm standby rates are available to customers who agree to use Standby Service only by prearrangement with the Company.
2. Company makes no guarantee that Standby Service will be available to Non-Firm Standby Service customers; however, the Company will make reasonable efforts to provide Standby Service whenever possible.
3. Customer must request use of Standby Service and receive approval from the Company prior to actually using Standby Service.
4. Use of Standby Service without prior approval by the Company shall subject the Non-Firm Standby Service customer to the following:
  - a. General Service or General Time of Day Service monthly demand charges for the unapproved Standby Service used in a given month, plus
  - b. Firm Standby Service unscheduled maintenance option reservation fees for six months prior to the month in which unapproved use of Standby Service occurred.
5. If unapproved use of Standby Service occurs twice in any 12 month period, the Company reserves the right to convert the Non-Firm Standby Service customer to Firm Standby Service.
6. Non-Firm Standby Service customers will remain on Non-Firm Standby Service for a period of not less than five years which includes a one year trial period.

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By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**STANDBY SERVICE RIDER (Continued)**

Section No. 5  
Original Sheet No. 107

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**ADDITIONAL TERMS AND CONDITIONS OF SERVICE FOR NON-FIRM STANDBY OPTION**

1. Non-firm standby rates are available to customers who agree to use Standby Service only by prearrangement with the Company.
2. Company makes no guarantee that Standby Service will be available to Non-Firm Standby Service customers; however, the Company will make reasonable efforts to provide Standby Service whenever possible.
3. Customer must request use of Standby Service and receive approval from the Company prior to actually using Standby Service.
4. Use of Standby Service without prior approval by the Company shall subject the Non-Firm Standby Service customer to the following:
  - a. General Service or General Time of Day Service monthly demand charges for the unapproved Standby Service used in a given month, plus
  - b. Firm Standby Service unscheduled maintenance option reservation fees for six months prior to the month in which unapproved use of Standby Service occurred.
5. If unapproved use of Standby Service occurs twice in any 12 month period, the Company reserves the right to convert the Non-Firm Standby Service customer to Firm Standby Service.
6. Non-Firm Standby Service customers will remain on Non-Firm Standby Service for a period of not less than five years which includes a one year trial period.

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|             |                 |                                                    |                 |          |
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SUPPLEMENTAL SERVICE RIDER

Section No. 5  
2nd Revised Sheet No. 108

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**AVAILABILITY**

Available to any non-residential customer who has an alternative source of electric energy supply which has an output that is variable and dependent on the thermal load characteristics of the customer and, therefore, serves all or a portion of the customer's electrical load requirements for a portion of the time and who requires use of the Company's electric service for supply of energy at other times. The normal expectation of this Rider is that the customer will contract for the firm portion of their backup supply from the Company under the Standby Service Rider and will contract for the interruptible and variable portion under this Rider. Each customer request for service under this Rider will be evaluated on a customer specific basis to determine eligibility. Under this service, the Company will provide a permanent service connection to supply the customer's contracted load in accordance with the provisions in the General Rules and Regulations, Section 2.4.

**RESERVATION FEES**

|                                                                      |         |   |
|----------------------------------------------------------------------|---------|---|
| Customer Charge per Month                                            | \$17.39 | R |
| Demand Charge per Month per kW<br>of Contracted Supplemental Service |         |   |
| Secondary Voltage Service                                            | \$3.15  |   |
| Primary Voltage Service                                              | \$2.20  |   |
| Transmission Transformed Voltage Service                             | \$1.40  |   |
| Transmission Voltage Service                                         | \$0.80  |   |

**USAGE RATES**

Demand Charge per Month per kW of Supplemental Capacity Used. There will be no demand charge for capacity actually used under this Rider except if that capacity is used during one of the Company's peak controlled interrupt periods. In such case, the demand will be charged as described below.

Energy Charge per kWh of Supplemental Energy Used. Energy actually used under this Rider during acceptable time periods will be charged at the same energy rate as contained in the base tariff to which this Rider is attached except if that energy is used during one of the Company's energy controlled or peak controlled interrupt periods. In such case, the energy will be charged as described below.

(Continued on Sheet No. 5-109)

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|                           |                                            |                          |
|---------------------------|--------------------------------------------|--------------------------|
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|                           | State Vice President – Minnesota & Dakotas |                          |
| Docket No. E002/M-03-1557 |                                            | Order Date: 03-03-04     |

**SUPPLEMENTAL GENERATION SERVICE RIDER**

Section No. 5  
3rd Revised Sheet No. 108

**AVAILABILITY**

Available to any non-residential customer who has an alternative source of electric energy supply which has an output that is variable and dependent on the thermal load characteristics of the customer and, therefore, serves all or a portion of the customer's electrical load requirements for a portion of the time and who requires use of the Company's electric service for supply of energy at other times. The normal expectation of this Rider is that the customer will contract for the firm portion of their backup supply from the Company under the Standby Service Rider and will contract for the interruptible and variable portion under this Rider. Each customer request for service under this Rider will be evaluated on a customer specific basis to determine eligibility. Under this service, the Company will provide a permanent service connection to supply the customer's contracted load in accordance with the provisions in the General Rules and Regulations, Section 2.4.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**RESERVATION FEES**

Customer Charge per Month \$22.00

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Demand Charge per Month per kW  
of Contracted Supplemental Service

Distribution Supplemental Capacity Fee

Secondary Voltage Service \$2.20

Primary Voltage Service \$1.65

Transmission Transformed Voltage Service \$0.90

Transmission Voltage Service \$0.00

Transmission Supplemental Capacity Fee OATT Rate

Generation Supplemental Capacity Reservation Fee \$0.50

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**USAGE RATES**

Demand Charge per Month per kW of Supplemental Generation Capacity Used. There will be no demand charge for capacity actually used under this Rider except if that capacity is used during one of the Company's peak controlled interrupt periods. In such case, the demand will be charged as described below.

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Energy Charge per kWh of Supplemental Generation Energy Used. Energy actually used under this Rider during acceptable time periods will be charged at the same energy and fuel clause adjustment charges as contained in the base tariff to which this Rider is attached except if that energy is used during one of the Company's energy controlled or peak controlled interrupt periods. In such case, the energy will be charged as described below.

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(Continued on Sheet No. 5-109)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
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SUPPLEMENTAL SERVICE RIDER (Continued)

Section No. 5  
5th Revised Sheet No. 109

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF SUPPLEMENTAL DEMAND**

For billing purposes, the customer demand for this Supplemental Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Supplemental Service the Company is obligated to supply. This quantity may be different from month to month. For applying the Usage Rate, as referenced in Section 10 below of this Rider, the Supplemental Demand will be the maximum actual demand (as adjusted for power factor) that is supplied by the Company to serve that portion of the customer's load, up to the contracted Supplemental Capacity, not served by the customer's alternative source of electric energy supply. This amount of used Supplemental Service Demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff.

C

**DETERMINATION OF SUPPLEMENTAL ENERGY**

Supplemental Energy shall be that portion of the customer's total energy requirements provided by the Company to supplement the customer's generation. Supplemental Energy shall be calculated hourly, and shall be the lesser of:

1. The Supplemental Capacity for which the customer has contracted, or
2. The Supplemental Capacity for which the customer has contracted less generation output above the Standby capacity for which the customer has contracted (as defined in the Standby Service Rider), but not less than zero.

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(Continued on Sheet No. 5-110)

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Date Filed: 05-11-04

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 06-23-04

Docket No. E002/M-04-709

Order Date: 06-23-04

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SUPPLEMENTAL GENERATION SERVICE RIDER**  
(Continued)

Section No. 5  
6th Revised Sheet No. 109

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, and the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF SUPPLEMENTAL GENERATION DEMAND**

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For billing purposes, the customer demand for this Supplemental Generation Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Supplemental Generation Service the Company is obligated to supply. This quantity may be different from month to month. For applying the Usage Rate, as referenced in Section 10 below of this Rider, the Supplemental Generation Demand will be the maximum actual demand (as adjusted for power factor) that is supplied by the Company to serve that portion of the customer's load, up to the contracted Supplemental Generation Capacity, not served by the customer's alternative source of electric energy supply. This amount of used Supplemental Generation Service Demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff.

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**DETERMINATION OF SUPPLEMENTAL GENERATION ENERGY**

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Supplemental Generation Energy shall be that portion of the customer's total energy requirements provided by the Company to supplement the customer's generation. Supplemental Generation Energy shall be calculated hourly, and shall be the lesser of:

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1. The Supplemental Generation Capacity for which the customer has contracted, or

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(Continued on Sheet No. 5-110)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**SUPPLEMENTAL GENERATION SERVICE RIDER**  
(Continued)

Section No. 5  
7th Revised Sheet No. 109

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, and the Renewable Development Rider, and the Transmission Cost Recovery Rider. T

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**DETERMINATION OF SUPPLEMENTAL GENERATION DEMAND**

For billing purposes, the customer demand for this Supplemental Generation Service Rider will be determined separately from the billing demand determined under the tariff to which this Rider applies. For purposes of applying the Reservation Fee, the demand will be the quantity specified in the customer's Electric Service Agreement as the maximum amount of Supplemental Generation Service the Company is obligated to supply. This quantity may be different from month to month. For applying the Usage Rate, as referenced in Section 10 below of this Rider, the Supplemental Generation Demand will be the maximum actual demand (as adjusted for power factor) that is supplied by the Company to serve that portion of the customer's load, up to the contracted Supplemental Generation Capacity, not served by the customer's alternative source of electric energy supply. This amount of used Supplemental Generation Service Demand will be determined independent of and will have no effect on the billing demand of the customer under their base tariff.

**DETERMINATION OF SUPPLEMENTAL GENERATION ENERGY**

Supplemental Generation Energy shall be that portion of the customer's total energy requirements provided by the Company to supplement the customer's generation. Supplemental Generation Energy shall be calculated hourly, and shall be the lesser of:

1. The Supplemental Generation Capacity for which the customer has contracted, or

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(Continued on Sheet No. 5-110)

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|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |



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SUPPLEMENTAL SERVICE RIDER (Continued)

Section No. 5  
1<sup>st</sup> Revised Sheet No. 110

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**TERMS AND CONDITIONS OF SERVICE**

1. This Supplemental Service Rider is applicable to any non-residential customer who requires 40 kW or more of backup capacity from the Company. Supplemental Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules, however, customer will always be permitted to implement demand side load reductions or use alternative generation when necessary, due to full or partial outage of the customer's generator, instead of using Supplemental Service from the Company. The Company and customer will develop and attach to the Electric Service Agreement, a load control procedure for the customer that will clearly define the customer's demand side load reductions or alternative generation capacity use that, if achieved during control periods, will avoid any Supplemental Demand Usage Rate charges being incurred. This will specifically state that when customer has been notified that a peak control period has been initiated, in addition to any load reductions customer must make under the terms of the controllable load portion of the Electric Service Agreement, customer's demand served by Company must be reduced by an amount equal to the difference between actual generator output and contracted Supplemental Capacity. Additionally, the customer demand served by Company shall not increase during the peak control period. If customer fails at either of these requirements, customer will incur Supplemental usage charges as defined in Section 10 below.
2. Customer will execute an Electric Service Agreement with the Company which will specify:
  - a. Type of Standby Service elected by the customer under the Standby Service Rider and the base tariff that these Riders are attached to and under which demand and energy rates will be selected during months Standby and/or Supplemental power is used,
  - b. The individual and total capacity requirements for which Company will be providing Standby and Supplemental power and to which the Reservation Fees apply, and
  - c. The expected initial level of firm service the customer will take under their base tariff, even if that level is zero, as well as any expected changes in load over the term of the agreement.
3. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.

(Continued on Sheet No. 5-111)

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Date Filed: 06-12-01

By: Kent T. Larson

Effective Date: 07-29-02

State Vice President – Minnesota & Dakotas

Docket No. E,G002/M-01-9375

Order Date: 07-29-02

**SUPPLEMENTAL GENERATION SERVICE RIDER**  
(Continued)

Section No. 5  
2nd Revised Sheet No. 110

**DETERMINATION OF SUPPLEMENTAL GENERATION ENERGY (Continued)**

2. The Supplemental Generation Capacity for which the customer has contracted less generation output above the Standby capacity for which the customer has contracted (as defined in the Standby Service Rider), but not less than zero.

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**TERMS AND CONDITIONS OF SERVICE**

1. This Supplemental Generation Service Rider is applicable to any non-residential customer who requires 40 kW or more, or to customer's who require 60 KW or more and are taking service under the Company's Distributed Generation Standard Interconnection and Power Purchase Tariff, of backup capacity from the Company. Supplemental Generation Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules, however, customer will always be permitted to implement demand side load reductions or use alternative generation when necessary, due to full or partial outage of the customer's generator, instead of using Supplemental Generation Service from the Company. The Company and customer will develop and attach to the Electric Service Agreement, a load control procedure for the customer that will clearly define the customer's demand side load reductions or alternative generation capacity use that, if achieved during control periods, will avoid any Supplemental Generation Demand Usage Rate charges being incurred. This will specifically state that when customer has been notified that a peak control period has been initiated, in addition to any load reductions customer must make under the terms of the controllable load portion of the Electric Service Agreement, customer's demand served by Company must be reduced by an amount equal to the difference between actual generator output and contracted Supplemental Generation Capacity. Additionally, the customer demand served by Company shall not increase during the peak control period. If customer fails at either of these requirements, customer will incur Supplemental Generation usage charges as defined in Section 10 below. For all customers with less than 40 KW (or 60 KW) of Supplemental Generation Capacity requirement of the Company, backup service will be available through the general electric tariffs of the Company.
2. Customer will execute an Electric Service Agreement with the Company which will specify:
- Type of Standby Service elected by the customer under the Standby Service Rider and the base tariff that these Riders are attached to and under which demand and energy rates will be selected during months Standby and/or Supplemental Generation power is used,
  - The individual and total capacity requirements for which Company will be providing Standby and Supplemental Generation power and to which the Reservation Fees apply, and
  - The expected initial level of firm service the customer will take under their base tariff, even if that level is zero, as well as any expected changes in load over the term of the agreement.
3. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.

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(Continued on Sheet No. 5-111)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |





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SUPPLEMENTAL SERVICE RIDER (Continued)

Section No. 5  
Original Revised Sheet No. 111  
Relocated from MPUC No. 1 Sheet No. 5-36.3 &  
5-36.4

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TERMS AND CONDITIONS OF SERVICE (Continued)

4. Company will not be obligated to supply Supplemental Service to backup a customer's generator at a level in excess of the Supplemental Capacity for which customer has contracted. This restriction in no way limits the amount of load for which a customer may require service from the Company under the base tariff to which this Rider is attached.
5. Customer will be liable for all damages allowed by law to the extent caused by customer's use of Supplemental power in excess of contracted Supplemental Capacity.
6. Company will require customer to contract for additional Supplemental Capacity if the customer exceeds the contract amounts in any three of the preceding 12 months.
7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Supplemental Service. Company and customer will review actual output and performance of the power source relative to the capacity nominated for Supplemental Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within customer's control, Company will notify customer of its intent to refuse to provide Supplemental Service. Upon receipt of such notice, customer may agree to reduce the Supplemental Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Supplemental Service Capacity. If customer's power source does not operate at or reasonably near that level during the 12 months immediately following Company's notice, Company may refuse to provide Supplemental Service until such time as customer agrees to reduce its Supplemental Service nomination or provide Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Supplemental Service for a trial period of three consecutive months.
8. Customer will remain on Supplemental Service for a period of not less than 12 months.
9. Customer will be allowed to take Supplemental Energy from the Company at any time, up to the maximum contracted level of Supplemental Demand, without incurring any usage demand charges except during the periods listed below.

(Continued on Sheet No. 5-112)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

**SUPPLEMENTAL GENERATION SERVICE RIDER**  
**(Continued)**

Section No. 5  
1st Revised Sheet No. 111

**TERMS AND CONDITIONS OF SERVICE (Continued)**

4. Company will not be obligated to supply Supplemental Generation Service to backup a customer's generator at a level in excess of the Supplemental Generation Capacity for which customer has contracted. This restriction in no way limits the amount of load for which a customer may require service from the Company under the base tariff to which this Rider is attached. T  
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5. Customer will be liable for all damages allowed by law to the extent caused by customer's use of Supplemental power in excess of contracted Supplemental Generation Capacity. T
6. Company will require customer to contract for additional Supplemental Generation Capacity if the customer exceeds the contract amounts in any three of the preceding 12 months. T
7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Supplemental Generation Service. Company and customer will review actual output and performance of the power source relative to the capacity nominated for Supplemental Generation Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within customer's control, Company will notify customer of its intent to refuse to provide Supplemental Generation Service. Upon receipt of such notice, customer may agree to reduce the Supplemental Generation Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Supplemental Generation Service Capacity. If customer's power source does not operate at or reasonably near that level during the 12 months immediately following Company's notice, Company may refuse to provide Supplemental Generation Service until such time as customer agrees to reduce its Supplemental Generation Service nomination or provide Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Supplemental Generation Service for a trial period of three consecutive months. T  
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8. Customer will remain on Supplemental Generation Service for a period of not less than 12 months. T
9. Customer will be allowed to take Supplemental Generation Energy from the Company at any time, up to the maximum contracted level of Supplemental Generation Demand, without incurring any usage demand charges except during the periods listed below. T  
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(Continued on Sheet No. 5-112)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



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SUPPLEMENTAL SERVICE RIDER (Continued)

Section No. 5  
Original Revised Sheet No. 112  
Relocated from MPUC No. 1 Sheet No. 5-36.4

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TERMS AND CONDITIONS OF SERVICE (Continued)

10. In the event customer requires Supplemental Service during one of the Company's energy control periods, customer will pay for the Supplemental Energy used during the energy control period at the applicable control period energy rate as listed in Company's Energy Controlled Service tariff. In the event customer requires Supplemental Service during one of the Company's peak control periods, as defined in the Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed), customer will pay for the Supplemental Energy used during the peak control period at twice the applicable control period energy rate as listed in Company's Energy Controlled Service tariff plus pay a fee of \$10.00 per kW of maximum Supplemental Capacity used during the peak control period. However, if this use occurs at the times of Company's system peak hours in which the Company would have insufficient Accredited Capacity under the Mid-Continent Area Power Pool (MAPP) Agreement, if not for additional capacity purchases, and the Company incurs additional capacity costs as a result of such Supplemental Service used by customer, customer shall pay peak demand charges for the month in which such Supplemental Service use occurs and for each of the five succeeding months instead of the above listed demand charges and/or Reservation Fees. Such peak demand charges shall be based upon the following:
- a. If customer has notified Company of the need to use Supplemental Service at least three hours prior to Company's system peak hour, such Supplemental Peak Demand charges shall be based on one-sixth of any additional capacity costs incurred by the Company as a result of using Supplemental Service. Such additional capacity costs shall not include any MAPP after-the-fact capacity purchase costs incurred by the Company.
  - b. If customer has not notified the Company of any need for Supplemental Service at least three hours prior to the Company's system peak hour, such Supplemental Peak Demand charges shall be based on one-sixth of any additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company as a result of using Supplemental Service. The demand for billing purposes for the succeeding five months shall be equal to the Supplemental Demand placed on the system during the time of the Company's system peak hour.

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(Continued on Sheet No. 5-113)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Order Date: 02-03-98

SUPPLEMENTAL GENERATION SERVICE RIDER  
(Continued)

Section No. 5  
1st Revised Sheet No. 112

TERMS AND CONDITIONS OF SERVICE (Continued)

10. In the event customer requires Supplemental Generation Service during one of the Company's energy control periods, customer will pay for the Supplemental Generation Energy used during the energy control period at the applicable control period energy rate as listed in Company's Energy Controlled Service tariff. In the event customer requires Supplemental Generation Service during one of the Company's peak control periods, as defined in the Rules for Application of Peak Controlled Tiered Services and Peak Controlled Services (Closed), customer will pay for the Supplemental Generation Energy used during the peak control period at twice the applicable control period energy rate as listed in Company's Energy Controlled Service tariff plus pay a fee of \$10.00 per kW of maximum Supplemental Generation Capacity used during the peak control period. However, if this use occurs at the times of Company's system peak hours in which the Company would have insufficient Accredited Capacity under the Mid-Continent Area Power Pool (MAPP) Agreement, if not for additional capacity purchases, and the Company incurs additional capacity costs as a result of such Supplemental Generation Service used by customer, customer shall pay peak demand charges for the month in which such Supplemental Generation Service use occurs and for each of the five succeeding months instead of the above listed demand charges and/or Reservation Fees. Such peak demand charges shall be based upon the following:

- a. If customer has notified Company of the need to use Supplemental Generation Service at least three hours prior to Company's system peak hour, such Supplemental Generation Peak Demand charges shall be based on one-sixth of any additional capacity costs incurred by the Company as a result of using Supplemental Generation Service. Such additional capacity costs shall not include any MAPP after-the-fact capacity purchase costs incurred by the Company.
- b. If customer has not notified the Company of any need for Supplemental Generation Service at least three hours prior to the Company's system peak hour, such Supplemental Generation Peak Demand charges shall be based on one-sixth of any additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company as a result of using Supplemental Generation Service. The demand for billing purposes for the succeeding five months shall be equal to the Supplemental Generation Demand placed on the system during the time of the Company's system peak hour.

The potential capacity charge provisions of this Section 10 shall not apply if the Company has obtained appropriate generation accreditation for the customer's generation from the Midwest Reliability Organization (MRO) and MAPP, or any successor organization. Customer will cooperate fully and assist in the preparation of the information necessary for the accreditation filing to MAPP. Failure of customer to assist in the preparation of the information and/or failure to obtain accreditation of the customer's generation by MAPP will result in the customer being ineligible for the exemption from the capacity charge provisions of this Section 10.

(Continued on Sheet No. 5-113)

Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective 02-01-07  
Date:

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



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SUPPLEMENTAL SERVICE RIDER (Continued)

Section No. 5  
Original Revised Sheet No. 113  
Relocated from MPUC No. 1 Sheet No. 5-36.4 &  
5-36.5

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TERMS AND CONDITIONS OF SERVICE (Continued)

11. In the event any portion of the capacity associated with the additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company and attributable to the customer under Section 10 above are subsequently used to satisfy the Company's MAPP requirements for the Company's customers, the peak demand charges under Section 10 shall be discounted with respect to that portion subsequently used by the Company's customers:
12. The Company shall provide notice to the Supplemental Service customers when peak load conditions are expected to occur through the same means that the Company notifies interruptible customers of the potential interruption.
13. Company will install and charge customer for the metering necessary, as determined by the Company, to allow for proper billing of the separate base tariff, Standby Service Rider and Supplemental Service Rider demands. Customer shall reimburse the Company for the costs of installing, operating, and maintaining these meters and any other facilities required to serve the customer's Supplemental load. Such required additional equipment shall include the metering equipment used to measure the electrical output of the customers' alternative source of electric supply. In particular, the Company will install a meter that measures the flow of power and energy from the customer's own generating facility. If, as a result of the customer's construction and installation of their generating facility, it is more practical or economical for the customer to install some or all of the metering equipment required, customer may be permitted to do so subject to Company's approval of an installation plan for such equipment.

(Continued on Sheet No. 5-114)

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|-------------|-----------------|--------------------------------------|-----------------|----------|
| Date Filed: | 06-30-97        | By: James M. Ashley                  | Effective Date: | 02-03-98 |
|             |                 | General Manager, Marketing and Sales |                 |          |
| Docket No.  | E,G002/M-97-985 |                                      | Order Date:     | 02-03-98 |

**SUPPLEMENTAL GENERATION SERVICE RIDER**  
**(Continued)**

Section No. 5  
1st Revised Sheet No. 113

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

11. In the event any portion of the capacity associated with the additional capacity costs or MAPP after-the-fact purchase costs incurred by the Company and attributable to the customer under Section 10 above are subsequently used to satisfy the Company's MAPP requirements for the Company's customers, the peak demand charges under Section 10 shall be discounted with respect to that portion subsequently used by the Company's customers.
12. The Company shall provide notice to the Supplemental Generation Service customers when peak load conditions are expected to occur through the same means that the Company notifies interruptible customers of the potential interruption. T
13. Company will install and charge customer for the metering necessary, as determined by the Company, to allow for proper billing of the separate base tariff, Standby Service Rider and Supplemental Generation Service Rider demands. Customer shall reimburse the Company for the costs of installing, operating, and maintaining these meters and any other facilities required to serve the customer's Supplemental Generation load. Such required additional equipment shall include the metering equipment used to measure the electrical output of the customers' alternative source of electric supply. In particular, the Company will install a meter that measures the flow of power and energy from the customer's own generating facility. If, as a result of the customer's construction and installation of their generating facility, it is more practical or economical for the customer to install some or all of the metering equipment required, customer may be permitted to do so subject to Company's approval of an installation plan for such equipment. T  
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(Continued on Sheet No. 5-114)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Lesher                              | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



**ADDITIONAL TERMS AND CONDITIONS FOR SCHEDULED MAINTENANCE**

1. Supplemental Service customers shall schedule maintenance of their power source during qualifying scheduled maintenance periods.
2. Qualifying Scheduled Maintenance Periods

Customers With 40 kW to 10,000 kW of Contracted Standby and Supplemental Capacity. Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby and Supplemental Capacity. Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, and at those times when Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

| <u>Outage Length</u> | <u>Required Notice</u> |
|----------------------|------------------------|
| Less than 48 hours   | 24 hours               |
| 2 days to 30 days    | 7 days                 |
| Over 30 days         | 90 days                |

3. The duration of qualifying scheduled maintenance periods may not exceed a total of six weeks in any 12 month period.
4. An additional charge shall apply if customer does not comply with all terms and conditions for qualifying scheduled maintenance periods. The additional charge shall be determined by calculating the additional charges which would have applied if customer were billed on the Unscheduled Maintenance Option for the period extending back to the customer's last scheduled maintenance period.
5. General Service or General Time of Day Service demand charges shall not apply to use during qualifying scheduled maintenance periods.

Date Filed: 06-12-01

By: Kent T. Larson  
State Vice President – Minnesota & Dakotas

Effective Date: 07-29-02

Docket No. E,G002/M-01-937

Order Date: 07-29-02

**SUPPLEMENTAL GENERATION SERVICE RIDER**  
**(Continued)**

Section No. 5  
2nd Revised Sheet No. 114

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**ADDITIONAL TERMS AND CONDITIONS FOR SCHEDULED MAINTENANCE**

1. Supplemental Generation Service customers shall schedule maintenance of their power source during qualifying scheduled maintenance periods. T

2. Qualifying Scheduled Maintenance Periods

Customers With 40 kW to 10,000 kW of Contracted Standby and Supplemental Generation Capacity. T  
Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby and Supplemental Generation Capacity. T  
Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, and at those times when Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

| <u>Outage Length</u> | <u>Required Notice</u> |
|----------------------|------------------------|
| Less than 48 hours   | 24 hours               |
| 2 days to 30 days    | 7 days                 |
| Over 30 days         | 90 days                |

3. The duration of qualifying scheduled maintenance periods may not exceed a total of six weeks in any 12 month period.
4. An additional charge shall apply if customer does not comply with all terms and conditions for qualifying scheduled maintenance periods. The additional charge shall be determined by calculating the additional charges which would have applied if customer were billed on the Unscheduled Maintenance Option for the period extending back to the customer's last scheduled maintenance period.
5. General Service or General Time of Day Service demand charges shall not apply to use during qualifying scheduled maintenance periods.

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Date Filed: 11-02-05

By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



**TIER 1 ENERGY CONTROLLED SERVICE RIDER**  
**RATE CODE A27**

Section No. 5  
5th Revised Sheet No. 115

**AVAILABILITY**

Availability is restricted to customers who were taking service on the Energy Controlled Service (Closed) tariff on or before March 31, 1994.

**RATE**

The rates and provisions of Tier 1 of the Peak Controlled Tiered Time of Day Service schedule shall apply except that the on peak and off peak energy charges for secondary voltage are replaced as follows:

**Energy Charge per kWh**

|                                     |            |
|-------------------------------------|------------|
| Firm On Peak Period Energy          | \$0.045557 |
| Firm Off Peak Period Energy         | \$0.035093 |
| Controllable On Peak Period Energy  | \$0.042938 |
| Controllable Off Peak Period Energy | \$0.034111 |
| Control Period Energy               | \$0.060940 |

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**INTERIM RATE ADJUSTMENT**

A 7.25% increase will be added to the sum of the following, as applicable: Customer Charge, Energy Charge, Demand Charge, Monthly Minimum Charge, Residential Low Income Energy Discount, Controlled Air Conditioning Rider, Voltage Discount, Energy Charge Credit and Annual Minimum Demand Charge.

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**PROPERTY TAX ADJUSTMENT**

The above energy charge includes a \$0.000429 / kWh reduction, to reflect a property tax change.

**TERMS AND CONDITIONS OF SERVICE**

1. Customers choosing service under this rider are restricted to the Standard PDL (predetermined demand level) option, agreeing to a fixed demand level and limiting load to that level during a control period.
2. Failure to Control Charge: Except as provided for under Control Period Energy Service described below, the following charges will apply in any month customer fails to control load to predetermined demand level:
  - a. An additional charge of \$10.00 per kW will apply during each Company specified control period to the amount by which customer's maximum adjusted demand exceeds their predetermined demand level, and
  - b. The control period energy charge will apply to the energy used during the control period which is associated with the customer's controllable demand.

After three such customer failures to control load to their predetermined demand level, Company reserves the right to increase the predetermined demand level or remove customer from Tier 1 Energy Controlled Service Rider and apply the cancellation charge specified in customer's Electric Service Agreement.

(Continued on Sheet No. 5-116)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**TIER 1 ENERGY CONTROLLED SERVICE RIDER**  
**RATE CODE A27**

Section No. 5  
6th Revised Sheet No. 115

**AVAILABILITY**

Availability is restricted to customers who are taking service on the Tier 1 option of the Peak Controlled Tiered Time of Day Service.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

**RATE**

The rates and provisions of Tier 1 of the Peak Controlled Tiered Time of Day Service schedule shall apply except that the on peak and off peak energy charges for secondary voltage are replaced as follows:

Energy Charge per kWh

|                                     |            |
|-------------------------------------|------------|
| Firm On Peak Period Energy          | \$0.028710 |
| Firm Off Peak Period Energy         | \$0.017210 |
| Controllable On Peak Period Energy  | \$0.027080 |
| Controllable Off Peak Period Energy | \$0.016410 |
| Control Period Energy               | \$0.073770 |

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**TERMS AND CONDITIONS OF SERVICE**

1. Failure to Control Charge: Except as provided for under Control Period Energy Service described below, the following charges will apply in any month customer fails to control load to Predetermined Demand Level or fails to control the full amount of their fixed Controllable Demand under the Optional PDL:
  - a. An additional charge of \$10.00 per kW will apply during each Company specified control period to the amount by which customer's Maximum Adjusted Demand exceeds their Predetermined Demand Level, and
  - b. The Control Period Energy charge will apply to the energy used during the control period that is associated with the customer's Controllable Demand.

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After three such customer failures to control load to their Predetermined Demand Level, Company reserves the right to increase the Predetermined Demand Level or remove customer from Tier 1 Energy Controlled Service Rider and apply the cancellation charge specified in customer's Electric Service Agreement.

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(Continued on Sheet No. 5-116)

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President and CEO of Northern States Power Company

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**TIER 1 ENERGY CONTROLLED SERVICE RIDER**  
(Continued)  
RATE CODE A27

Section No. 5  
1st Revised Sheet No. 116

**TERMS AND CONDITIONS OF SERVICE (Continued)**

3. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur at such times when:
  - a. Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs,
  - b. Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or
  - c. In Company's opinion, the reliability of the system is endangered.
4. Customer's Electric Service Agreement with Company will include a maximum of 300 hours of interruption per year.
5. All other provisions of Tier 1 of the Peak Controlled Tiered Time of Day Service schedule not in conflict with the Tier 1 Energy Controlled Service Rider shall apply.

**CONTROL PERIOD ENERGY SERVICE**

**AVAILABILITY**

Available to Tier 1 Energy Controlled Service Rider customers for supply of controllable demand related energy during control periods. The control period energy charge will apply when the Company is required to use oil-fired generation equipment or to purchase power that results in equivalent production costs. Control Period Energy Service will not be available when Company expects system peak load conditions or during system emergencies.

**RATE**

The control period energy charge will apply to all controllable demand related energy used during the control period.

**TERMS AND CONDITIONS OF SERVICE**

1. Control Period Energy Service will be available provided such service will not adversely affect firm service to any customer.
2. Company reserves the right to refuse or control the supply of Control Period Energy Service if its capacity is not adequate to furnish such service.

(Continued on Sheet No. 5-116-1)

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**TIER 1 ENERGY CONTROLLED SERVICE RIDER**  
**(Continued)**  
**RATE CODE A27**

Section No. 5  
2nd Revised Sheet No. 116

**TERMS AND CONDITIONS OF SERVICE (Continued)**

2. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur at such times when:
  - a. Company is required to use generation equipment or to purchase power that results in production costs in excess of \$70 per MWh,
  - b. Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the Mid-Continent Area Power Pool Agreement, including reserve requirements, or
  - c. In Company's opinion, the reliability of the system is endangered.
3. Customer's Electric Service Agreement with Company will include a maximum of 300 hours of interruption per year.
4. All other provisions of Tier 1 of the Peak Controlled Tiered Time of Day Service schedule not in conflict with the Tier 1 Energy Controlled Service Rider shall apply.

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**CONTROL PERIOD ENERGY SERVICE**

**AVAILABILITY**

Available to Tier 1 Energy Controlled Service Rider customers for supply of Controllable Demand related energy during control periods. The Control Period Energy charge will apply when the Company is required to use generation equipment or to purchase power that results in production costs in excess of \$70 per MWh. Control Period Energy Service will not be available when Company expects system peak load conditions or during system emergencies.

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In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**RATE**

The control period energy charge will apply to all Controllable Demand related energy used during the control period.

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**TERMS AND CONDITIONS OF SERVICE**

1. Control Period Energy Service will be available provided such service will not adversely affect firm service to any customer.
2. Company reserves the right to refuse or control the supply of Control Period Energy Service if its capacity is not adequate to furnish such service.

(Continued on Sheet No. 116.1)

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Northern States Power Company d/b/a Xcel Energy  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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TIER 1 ENERGY CONTROLLED SERVICE RIDER  
(Continued)  
RATE CODE A27

Section No. 5  
Original Sheet No. 116.1

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TERMS AND CONDITIONS OF SERVICE (Continued)

3. All other provisions of the Tier 1 Energy Controlled Service Rider not in conflict with Control Period Energy Service shall apply.
4. Company notice of commencement of control period will include notice of availability of Control Period Energy Service.

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**TIER 1 ENERGY CONTROLLED SERVICE RIDER**  
**(Continued)**  
**RATE CODE A27**

Section No. 5  
Original Sheet No. 116.1

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

3. All other provisions of the Tier 1 Energy Controlled Service Rider not in conflict with Control Period Energy Service shall apply.
4. Company notice of commencement of control period will include notice of availability of Control Period Energy Service.

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|             |                 |                                                    |                 |          |
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Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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EXPERIMENTAL DEMAND FREE  
POWER SERVICE RIDER

Section No. 5  
Original Sheet No. 117  
Relocated from MPUC No. 1 Sheet No. 5-36

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**AVAILABILITY**

Available to no more than five non-residential customers on an experimental basis for general service subject to provisions in the General Rules and Regulations, Section 2.5. Availability is restricted to customers with a minimum billing demand of 5,000 kW and average monthly load factor over a 12 month period of not less than 80%. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. This experimental rate is available for a period of two years. After the two year experimental period, NSP will conduct a study to review the effectiveness of this rider. With the Commission's approval, NSP may offer this rider to the commercial and industrial customers permanently after the two year experimental period. All provisions of regular service schedules continue to apply except as indicated in this Rider.

**RATE**

The applicable retail energy charge.

**DETERMINATION OF DEMAND**

Base Demand level shall be specified and agreed to by the customer and Company. Customer's contracted base demand level must not be greater than 125% of the annual maximum demand.

Incremental Demand shall be determined by subtracting the actual demand from the contracted base demand.

**DETERMINATION OF DEMAND FREE POWER ENERGY**

The maximum demand free power energy supplied in any billing month shall be the contracted incremental demand times 20.

**TERMS AND CONDITIONS OF SERVICE**

1. Experimental Demand Free Power Service Rider will apply to any customer who requires 1,000 kWh or more of energy from Company each time the Rider is exercised during designated period.
2. Customer must maintain at least 90% lagging power factor during the term of the agreement.
3. Customer will execute an Electric Service Agreement with Company which will specify:
  - a. Base demand level,
  - b. Incremental demand,
  - c. Monthly maximum demand free power energy, and
  - d. Annual maximum demand.

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(Continued on Sheet No. 5-118)

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**EXPERIMENTAL DEMAND FREE  
POWER SERVICE RIDER**

Section No. 5  
1st Revised Sheet No. 117

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**CANCELED**

(Continued on Sheet No. 5-118)

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Northern States Power Company  
Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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EXPERIMENTAL DEMAND FREE  
POWER SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 118  
Relocated from MPUC No. 1 Sheet No. 5-36

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TERMS AND CONDITIONS OF SERVICE (Continued)

4. Demand free power may not be available during Company designated system high load period or system emergency.
5. Customer must request from Company the use of demand free power, the time its to be used and its duration at least 24 hours in advance. Shorter notices may be available at Company's discretion.
6. Company will confirm the schedule of demand free power to the customer as soon as possible after the customer request is made. Confirmed schedules may be canceled during Company designated system high load period or system emergency.
7. Customer will annually furnish documentation to Company confirming the base demand level established is still valid. Company will adjust customer's base demand level upward if customer's load growth is confirmed over a 12 month period.

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**EXPERIMENTAL DEMAND FREE  
POWER SERVICE RIDER (Continued)**

Section No. 5  
1st Revised Sheet No. 118

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**CANCELED**

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AREA DEVELOPMENT RIDER

Section No. 5  
Original Sheet No. 119  
Relocated from MPUC No. 1 Sheet No. 5-26

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**AVAILABILITY**

Available to new or existing demand metered customers located in Area Development Zones whose proper Standard Industrial Classification (SIC) is manufacturing or wholesale trade and who qualify for other development incentives offered by local government entities. The availability of this Rider is limited to specific Area Development Zones that meet the criteria listed below as set forth by the Commission.

**ZONE DESIGNATION**

Area Development Zones in the seven county Twin Cities' metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington Counties) must be located within one of the cities lying within the "Fully Developed Area" as classified by the Metropolitan Council in the document entitled "Metropolitan Development and Investment Framework (December 1988)" that has experienced a decline in combined employment in manufacturing and wholesale trade between 1980 and the most recent year for which data are available as published by the Minnesota Department of Economic Security. Eligible communities are Bloomington, Columbia Heights/Hilltop, Crystal, Fridley, Golden Valley, Hopkins, Minneapolis, New Brighton, Roseville, South St. Paul, St. Louis Park, and St. Paul. Area Development Zones in cities located outside the seven county Twin Cities' metropolitan area must be located in a city with a minimum population of 25,000 based on the most recent U.S. Census of Population and must be located in a county (or counties) that have experienced a decline in combined employment in manufacturing and wholesale trade between 1987 and the most recent year for which data are available as published by the Minnesota Department of Economic Security. The Area Development Zone must be an existing or proposed industrial park with a minimum size of ten acres. The maximum total number of active zones at any time is 18; the maximum number of active zones in the seven county Twin Cities' metropolitan area is 15. The maximum number of active zones in any community is three. A zone can be "decertified" and a new Area Development Zone established at any time as long as there are no more than three Area Development Zones in a community at any point in time.

**RATE**

The rates and provisions of the customer's regular rate schedule shall apply except monthly demand charges for customer's Qualified Billing Demand shall be reduced as follows:

| <u>Years</u> | <u>Percent Reduction</u> |
|--------------|--------------------------|
| 1 - 3        | 50%                      |
| 4            | 30%                      |
| 5            | 20%                      |
| 6            | 0%                       |

(Continued on Sheet No. 5-120)

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**AREA DEVELOPMENT RIDER**

Section No. 5  
Original Sheet No. 119

---

**AVAILABILITY**

Available to new or existing demand metered customers located in Area Development Zones whose proper Standard Industrial Classification (SIC) is manufacturing or wholesale trade and who qualify for other development incentives offered by local government entities. The availability of this Rider is limited to specific Area Development Zones that meet the criteria listed below as set forth by the Commission.

**ZONE DESIGNATION**

Area Development Zones in the seven county Twin Cities' metropolitan area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington Counties) must be located within one of the cities lying within the "Fully Developed Area" as classified by the Metropolitan Council in the document entitled "Metropolitan Development and Investment Framework (December 1988)" that has experienced a decline in combined employment in manufacturing and wholesale trade between 1980 and the most recent year for which data are available as published by the Minnesota Department of Economic Security. Eligible communities are Bloomington, Columbia Heights/Hilltop, Crystal, Fridley, Golden Valley, Hopkins, Minneapolis, New Brighton, Roseville, South St. Paul, St. Louis Park, and St. Paul. Area Development Zones in cities located outside the seven county Twin Cities' metropolitan area must be located in a city with a minimum population of 25,000 based on the most recent U.S. Census of Population and must be located in a county (or counties) that have experienced a decline in combined employment in manufacturing and wholesale trade between 1987 and the most recent year for which data are available as published by the Minnesota Department of Economic Security. The Area Development Zone must be an existing or proposed industrial park with a minimum size of ten acres. The maximum total number of active zones at any time is 18; the maximum number of active zones in the seven county Twin Cities' metropolitan area is 15. The maximum number of active zones in any community is three. A zone can be "decertified" and a new Area Development Zone established at any time as long as there are no more than three Area Development Zones in a community at any point in time.

**RATE**

The rates and provisions of the customer's regular rate schedule shall apply except monthly demand charges for customer's Qualified Billing Demand shall be reduced as follows:

| <u>Years</u> | <u>Percent Reduction</u> |
|--------------|--------------------------|
| 1 - 3        | 50%                      |
| 4            | 30%                      |
| 5            | 20%                      |
| 6            | 0%                       |

(Continued on Sheet No. 5-120)

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Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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AREA DEVELOPMENT RIDER (Continued)

Section No. 5  
Original Sheet No. 120  
Relocated from MPUC No. 1 Sheet No. 5-26 &  
5-26.1

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**QUALIFIED BILLING DEMAND**

The portion of the customer's billing demand which qualifies for reduced demand charges.

New Customers. The total billing demand of new customers shall be defined as Qualified Billing Demand.

Existing Customers. The billing demand in excess of customer's base billing demand shall be defined as qualified billing demand. The base billing demand for each month will be calculated by averaging the monthly billing demands from the two year period immediately preceding the customer's application for this Rider.

**NEW CUSTOMERS**

To be considered a new customer for the purpose of this Rider, an applicant must demonstrate one of the following:

1. That business has not been conducted at the premises for at least three monthly billing periods prior to application,
2. That the predecessor customer is in bankruptcy and the applicant has obtained the business in a liquidation of assets sale,
3. Customer's activities are largely or entirely different in nature from that of the previous customer, or
4. If the activities are not so different, that the owner(s), operator(s), or manager(s) are substantially different.

**EXISTING CUSTOMERS**

Existing customers who materially increase their use of electric service may qualify for service under this Rider, provided such material increase is the result of the addition of equipment, or expansion of the customer's facility or operations. The customer shall notify the Company in writing and document the basis for the material increase in its use of electric service. Following such notification, the Company will review the customer's monthly billing demands. If the billing demands for each of the next three consecutive months exceed that from the comparable monthly period of the preceding year by at least 25%, the customer will be eligible thereafter to receive service under this Rider.

**RIGHT TO REFUSE SERVICE**

The Company reserves the right to refuse applicants for service under this Rider if it determines that significant additional capital expenditures will be required to provide service to that applicant. In such cases, an applicant may be able to qualify for service by making a non-refundable contribution to compensate for the significant additional capital costs incurred by the Company to supply service to the applicant.

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(Continued on Sheet No. 5-121)

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**AREA DEVELOPMENT RIDER (Continued)**

Section No. 5  
Original Sheet No. 120

---

**QUALIFIED BILLING DEMAND**

The portion of the customer's billing demand that qualifies for reduced demand charges.

New Customers. The total billing demand of new customers shall be defined as Qualified Billing Demand.

Existing Customers. The billing demand in excess of customer's base billing demand shall be defined as qualified billing demand. The base billing demand for each month will be calculated by averaging the monthly billing demands from the two-year period immediately preceding the customer's application for this Rider.

**NEW CUSTOMERS**

To be considered a new customer for the purpose of this Rider, an applicant must demonstrate one of the following:

1. That business has not been conducted at the premises for at least three monthly billing periods prior to application,
2. That the predecessor customer is in bankruptcy and the applicant has obtained the business in a liquidation of assets sale,
3. Customer's activities are largely or entirely different in nature from that of the previous customer, or
4. If the activities are not so different, that the owner(s), operator(s), or manager(s) are substantially different.

**EXISTING CUSTOMERS**

Existing customers who materially increase their use of electric service may qualify for service under this Rider, provided such material increase is the result of the addition of equipment, or expansion of the customer's facility or operations. The customer shall notify the Company in writing and document the basis for the material increase in its use of electric service. Following such notification, the Company will review the customer's monthly billing demands. If the billing demands for each of the next three consecutive months exceed that from the comparable monthly period of the preceding year by at least 25%, the customer will be eligible thereafter to receive service under this Rider.

**RIGHT TO REFUSE SERVICE**

The Company reserves the right to refuse applicants for service under this Rider if it determines that significant additional capital expenditures will be required to provide service to that applicant. In such cases, an applicant may be able to qualify for service by making a non-refundable contribution to compensate for the significant additional capital costs incurred by the Company to supply service to the applicant.

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(Continued on Sheet No. 5-121)

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Minneapolis, Minnesota 55401  
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AREA DEVELOPMENT RIDER (Continued)

Section No. 5  
Original Sheet No. 121  
Relocated from MPUC No. 1 Sheet No. 5-26.1

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**ENERGY EFFICIENCY**

For service taken on this Rider, the Company will conduct an energy audit and inform the customer of the conservation programs available from the Company.

**ELECTRIC SERVICE AGREEMENT**

Any customer taking service under this Area Development Rider shall execute an Electric Service Agreement, or amend their existing Electric Service Agreement, with the Company for a period of six years beginning on the effective date on which the customer commences taking service under this Rider; however, customers who began service under the Pilot Area Development Rider before June 28, 1995, with Electric Service Agreement terms of five years, will not be required to amend or modify those agreements. Such Electric Service Agreements (new or amended) shall state the increased or new load level of the customer as well as the customer's obligation to continue to purchase all of their electric power and electric energy from the Company during the term of the agreement.

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**AREA DEVELOPMENT RIDER (Continued)**

Section No. 5  
Original Sheet No. 121

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**ENERGY EFFICIENCY**

For service taken on this Rider, the Company will conduct an energy audit and inform the customer of the conservation programs available from the Company.

**ELECTRIC SERVICE AGREEMENT**

Any customer taking service under this Area Development Rider shall execute an Electric Service Agreement, or amend their existing Electric Service Agreement, with the Company for a period of six years beginning on the effective date on which the customer commences taking service under this Rider; however, customers who began service under the Pilot Area Development Rider before June 28, 1995, with Electric Service Agreement terms of five years, will not be required to amend or modify those agreements. Such Electric Service Agreements (new or amended) shall state the increased or new load level of the customer as well as the customer's obligation to continue to purchase all of their electric power and electric energy from the Company during the term of the agreement.

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COMPETITIVE SERVICE RIDER

Section No. 5  
Original Sheet No. 122  
Relocated from MPUC No. 1 Sheet No. 5-34

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**AVAILABILITY**

Available at Company's discretion to commercial and industrial customers that have electric service requirements which are subject to effective competition. Effective competition exists if a customer is located in Company's service territory and has the ability to obtain its energy requirements from an energy supplier not rate regulated by the Minnesota Public Utilities Commission.

**RATE**

Standard service rate provisions apply except the level of the demand and/or energy charges may be decreased for each customer based on a consideration of customer's load characteristics and lowest cost competitive energy supply.

**TERMS AND CONDITIONS OF SERVICE**

1. Customer must provide Company with information which documents that customer is not likely to take service provided by any other electric tariff available from Company.
2. Minimum load served under this Rider is 500 kW.
3. Customer must execute an Electric Service Agreement with Company which will include:
  - a. The minimum rate under this Rider, which will recover at least the incremental cost of providing service, including the cost of incremental capacity that is to be added while the rate is in effect and any applicable on peak or off peak differential,
  - b. The maximum possible rate reduction possible under this Rider, which will not exceed the difference between the standard tariff and the cost to the customer of the lowest cost competitive energy supply,
  - c. The term of service under this Rider, which must be no less than one year and no longer than five years,
  - d. The size of the load served under this Rider,
  - e. An annual minimum charge to fully recover distribution costs, and
  - f. Verification that customer has been fully informed of the availability of energy audits. If no energy audit is performed for customer, an explanation of why an energy audit was not necessary will be included.
4. The Company, within a general rate case, is allowed to seek recovery of the difference between the standard tariff and this Rider times the usage level during the test year period.

(Continued on Sheet No. 5-123)

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General Manager, Marketing and Sales

Effective Date: 02-03-98

Docket No. E,G002/M-97-985

Order Date: 02-03-98

**COMPETITIVE SERVICE RIDER**

Section No. 5  
Original Sheet No. 122

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**AVAILABILITY**

Available at Company's discretion to commercial and industrial customers that have electric service requirements that are subject to effective competition. Effective competition exists if a customer is located in Company's service territory and has the ability to obtain its energy requirements from an energy supplier not rate regulated by the Minnesota Public Utilities Commission.

**RATE**

Standard service rate provisions apply except the level of the demand and/or energy charges may be decreased for each customer based on a consideration of customer's load characteristics and lowest cost competitive energy supply.

**TERMS AND CONDITIONS OF SERVICE**

1. Customer must provide Company with information that documents that customer is not likely to take service provided by any other electric tariff available from Company.
2. Minimum load served under this Rider is 500 kW.
3. Customer must execute an Electric Service Agreement with Company which will include:
  - a. The minimum rate under this Rider, which will recover at least the incremental cost of providing service, including the cost of incremental capacity that is to be added while the rate is in effect and any applicable on peak or off peak differential,
  - b. The maximum possible rate reduction possible under this Rider, which will not exceed the difference between the standard tariff and the cost to the customer of the lowest cost competitive energy supply,
  - c. The term of service under this Rider, which must be no less than one year and no longer than five years,
  - d. The size of the load served under this Rider,
  - e. An annual minimum charge to fully recover distribution costs, and
  - f. Verification that customer has been fully informed of the availability of energy audits. If no energy audit is performed for customer, an explanation of why an energy audit was not necessary will be included.
4. The Company, within a general rate case, is allowed to seek recovery of the difference between the standard tariff and this Rider times the usage level during the test year period.

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(Continued on Sheet No. 5-123)

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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COMPETITIVE SERVICE RIDER (Continued)

Section No. 5  
Original Sheet No. 123  
Relocated from MPUC No. 1 Sheet No. 5-34 &  
5-35

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TERMS AND CONDITIONS OF SERVICE (Continued)

5. A rate under this Rider shall meet the conditions of Minnesota Statutes, Section 216B.03, Reasonable Rate, for other customers in this same customer class.
6. Unless the Commission determines that it would be in the public interest, a rate under this Rider shall not compete with district heating or cooling provided by a district heating utility defined by Minnesota Statutes, Section 216B.166, Subdivision 2, Paragraph (c).
7. A rate offered under this Rider may not be offered to a customer in which the Company has a financial interest greater than 50%.

REGULATORY REVIEW

The rate offered under this Rider will be effective on an interim basis after filing by Company of the proposed rate with the Commission and upon the date specified in the Electric Service Agreement. If the Commission does not approve the rate, Company may seek to recover the difference in revenues between the interim competitive rate and the standard tariff from the customer who was offered the competitive rate.

The Commission has the authority to approve, modify, or reject a rate under this Rider. If the Commission approves the competitive rate, it becomes effective as agreed to by the Company and customer. If the competitive rate is modified by the Commission, the Commission shall issue an order modifying the competitive rate subject to the approval of the Company and the customer. Each party has ten days in which to reject the proposed modification. If no party rejects the proposed modifications, the Commission's order becomes final. If either party rejects the Commission's proposed modifications, the Company on its behalf or on the behalf of the customer, may submit to the Commission a modified version of the Commission's proposal. The Commission shall accept or reject the modified version within 30 days. If the Commission rejects the competitive rate, it shall issue an order indicating the reasons for the rejection.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

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Order Date: 02-03-98

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**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**COMPETITIVE SERVICE RIDER (Continued)**

Section No. 5  
Original Sheet No. 123

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

5. A rate under this Rider shall meet the conditions of Minnesota Statutes, Section 216B.03, Reasonable Rate, for other customers in this same customer class.
6. Unless the Commission determines that it would be in the public interest, a rate under this Rider shall not compete with district heating or cooling provided by a district heating utility defined by Minnesota Statutes, Section 216B.166, Subdivision 2, Paragraph (c).
7. A rate offered under this Rider may not be offered to a customer in which the Company has a financial interest greater than 50%.

**REGULATORY REVIEW**

The rate offered under this Rider will be effective on an interim basis after filing by Company of the proposed rate with the Commission and upon the date specified in the Electric Service Agreement. If the Commission does not approve the rate, Company may seek to recover the difference in revenues between the interim competitive rate and the standard tariff from the customer who was offered the competitive rate.

The Commission has the authority to approve, modify, or reject a rate under this Rider. If the Commission approves the competitive rate, it becomes effective as agreed to by the Company and customer. If the competitive rate is modified by the Commission, the Commission shall issue an order modifying the competitive rate subject to the approval of the Company and the customer. Each party has ten days in which to reject the proposed modification. If no party rejects the proposed modifications, the Commission's order becomes final. If either party rejects the Commission's proposed modifications, the Company on its behalf or on the behalf of the customer, may submit to the Commission a modified version of the Commission's proposal. The Commission shall accept or reject the modified version within 30 days. If the Commission rejects the competitive rate, it shall issue an order indicating the reasons for the rejection.

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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Northern States Power Company  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**COMPETITIVE MARKET RIDER**

Section No. 5

Original Sheet No. 124

Relocated from MPUC No. 1 Sheet No. 5-26.2

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**AVAILABILITY**

Available at Company's discretion to demand metered controlled service customers that have electric service requirements which qualify under the Competitive Market Conditions described below.

**RATE**

Controllable service rate provisions apply except the level of the demand and/or energy charges may be discounted for qualified customers.

**QUALIFIED BILLING DEMAND AND/OR BILLED ENERGY**

The portions of the customer's billing demand and/or billed energy as described below which qualify for discounted charges.

New Customers. The total billing demand and/or billed energy of new customers may be defined as qualified for discounted charges.

Existing Customers. The billing demand and/or billed energy in excess of customer's base billing demand and/or base billed energy may be defined as qualified for discounted charges. The base billing demand and/or base billed energy for each month will be determined by considering the billing demands and/or billed energy for a representative period preceding the application of this Rider.

**COMPETITIVE MARKET CONDITIONS**

Rate discounts will be determined individually and specified in an Electric Service Agreement with the customer for customers who meet the following qualifications:

1. The market for customer's energy requirements is competitive. Customer must provide evidence of the competitive nature of the market for its electric energy requirements which at a minimum would include one of the following:
  - a. The existence of direct competitor(s) in customer's own product/service market who obtain electric energy from another utility at a lower cost than NSP's comparable electric service, or
  - b. The existence of a directly substitutable energy source.
2. Customer's production process is energy intensive. Customer must provide evidence that its electric energy costs are at least 10% of their total production costs.
3. Customer will make new capital investments in production equipment which uses electricity as its primary energy source in an amount equal to or greater than \$750.00 per kW of qualified billing demand.

(Continued on Sheet No. 5-125)

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

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**COMPETITIVE MARKET RIDER**

Section No. 5  
Original Sheet No. 124

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**AVAILABILITY**

Available at Company's discretion to demand metered controlled service customers that have electric service requirements that qualify under the Competitive Market Conditions described below.

**RATE**

Controllable service rate provisions apply except the level of the demand and/or energy charges may be discounted for qualified customers.

**QUALIFIED BILLING DEMAND AND/OR BILLED ENERGY**

The portions of the customer's billing demand and/or billed energy as described below that qualify for discounted charges.

New Customers. The total billing demand and/or billed energy of new customers may be defined as qualified for discounted charges.

Existing Customers. The billing demand and/or billed energy in excess of customer's base billing demand and/or base billed energy may be defined as qualified for discounted charges. The base billing demand and/or base billed energy for each month will be determined by considering the billing demands and/or billed energy for a representative period preceding the application of this Rider.

**COMPETITIVE MARKET CONDITIONS**

Rate discounts will be determined individually and specified in an Electric Service Agreement with the customer for customers who meet the following qualifications:

1. The market for customer's energy requirements is competitive. Customer must provide evidence of the competitive nature of the market for its electric energy requirements which at a minimum would include one of the following:
  - a. The existence of direct competitor(s) in customer's own product/service market who obtain electric energy from another utility at a lower cost than NSP's comparable electric service, or
  - b. The existence of a directly substitutable energy source.
2. Customer's production process is energy intensive. Customer must provide evidence that its electric energy costs are at least 10% of their total production costs.
3. Customer will make new capital investments in production equipment which uses electricity as its primary energy source in an amount equal to or greater than \$750.00 per kW of qualified billing demand.

(Continued on Sheet No. 5-125)

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|             |                 |                                                    |                 |          |
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Minneapolis, Minnesota 55401  
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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COMPETITIVE MARKET RIDER (Continued)

Section No. 5  
Original Sheet No. 125  
Relocated from MPUC No. 1 Sheet No. 5-26.2

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**ENERGY EFFICIENCY**

For service taken on this Rider, the Company will conduct an energy audit as provided for in its demand side management program, and inform the customer of the conservation and load management programs available from the Company.

**REGULATORY REVIEW**

The Commission has the authority to approve, modify, or reject a rate developed under this Rider. Therefore, application of the rate agreed to between the Company and a customer under this Rider is subject to Commission approval.

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Date Filed: 06-30-97

By: James M. Ashley  
General Manager, Marketing and Sales

Effective Date: 02-03-98

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Northern States Power Company, a Minnesota corporation  
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**COMPETITIVE MARKET RIDER (Continued)**

Section No. 5  
Original Sheet No. 125

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**ENERGY EFFICIENCY**

For service taken on this Rider, the Company will conduct an energy audit as provided for in its demand side management program, and inform the customer of the conservation and load management programs available from the Company.

**REGULATORY REVIEW**

The Commission has the authority to approve, modify, or reject a rate developed under this Rider. Therefore, application of the rate agreed to between the Company and a customer under this Rider is subject to Commission approval.

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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Northern States Power Company  
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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER

Section No. 5  
4th Revised Sheet No. 126

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**AVAILABILITY**

Availability is restricted to customers who are taking Peak Controlled Tiered Service or Peak Controlled Tiered Time of Day Service. Customers choosing service under this rider are restricted to the Tier 1 and Standard PDL (predetermined demand level) options and shall agree to allow the Company to interrupt customer's load to a predetermined level within 10 minutes notice whenever required by Company during a peak control interrupt period or in emergency situations. Availability is also restricted to customers with a minimum controllable demand of 3,000 kW. Participation is limited to 100,000 kW of controllable demand. Participation limits may be exceeded if part of a customer's controllable load is within the participation limit, subject to Company approval.

**CONTRACT**

Customers must contract for this service rider through an electric service agreement with Company. Contract period will normally be for 24 months. Customer's controllable demand also requires certification as defined in MAPP's (Mid-Continent Area Power Pool) Certified Interruptible Demand certification process.

**RATE**

Peak Control Period Schedule L

Energy Charge per kWh

|                                          |                                           |   |
|------------------------------------------|-------------------------------------------|---|
| Secondary Voltage Service                | MAPP Schedule L Energy Rate Plus \$0.0013 | R |
| Primary Voltage Service                  | MAPP Schedule L Energy Rate Plus \$0.0008 | R |
| Transmission Transformed Voltage Service | MAPP Schedule L Energy Rate Plus \$0.0004 |   |
| Transmission Voltage Service             | MAPP Schedule L Energy Rate               |   |

MAPP Schedule L Energy Rate is the composite energy rate per kWh determined under MAPP Service Schedule L, Interruptible Load Replacement Energy Service.

**DETERMINATION OF PEAK CONTROL PERIOD SCHEDULE L ENERGY**

For each control period in which customer has arranged in advance with Company for the supply of controllable demand-related energy, the Peak Control Period Schedule L Energy in kilowatt-hours shall be the customer's contracted Certified Interruptible Demand in kilowatts times the duration of Company's declared Schedule L peak control period in hours.

(Continued on Sheet No. 5-127)

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Date Filed: 07-07-03

By: Kent T. Larson  
State Vice President, Minnesota

Effective Date: 12-01-03

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Order Date: 11-06-03

Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER**

Section No. 5  
5th Revised Sheet No. 126

**AVAILABILITY**

Availability is restricted to customers who are taking Peak Controlled Tiered Service or Peak Controlled Tiered Time of Day Service. Customers choosing service under this rider are restricted to the Tier 1 and shall agree to allow the Company to interrupt customer's load to a predetermined level within 10 minutes notice whenever required by Company during a peak control interrupt period or in emergency situations. Availability is also restricted to customers with a minimum controllable demand of 3,000 kW. Participation is limited to 100,000 kW of controllable demand. Participation limits may be exceeded if part of a customer's controllable load is within the participation limit, subject to Company approval.

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In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**CONTRACT**

Customers must contract for this service rider through an electric service agreement with Company. Contract period will normally be for 24 months. Customer's controllable demand also requires certification as defined in MAPP's (Mid-Continent Area Power Pool) Certified Interruptible Demand certification process.

**RATE**

Peak Control Period Schedule L

Demand Charge per Month per kW - Customer's that qualify for this Schedule L tariff shall be placed in Performance Factor Level L and their Controllable Demand, as defined in the Peak Controlled Tiered Time of Day Service tariff, shall be charged \$2.92 per Month per kW.

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Energy Charge per kWh - MEMA Schedule Q, MAPP Product L Energy Rate, Plus:

|                                          |          |
|------------------------------------------|----------|
| Secondary Voltage Service                | \$0.0013 |
| Primary Voltage Service                  | \$0.0008 |
| Transmission Transformed Voltage Service | \$0.0004 |
| Transmission Voltage Service             | \$0.0000 |

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Midcontinent Energy Marketers Assn (MEMA) Schedule Q, MAPP Product L Energy Rate is the composite energy rate per kWh determined under MEMA Schedule Q, MAPP Product L, Interruptible Load Replacement Energy Service.

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**DETERMINATION OF PEAK CONTROL PERIOD SCHEDULE L ENERGY**

For each control period in which customer has arranged in advance with Company for the supply of controllable demand-related energy, the Peak Control Period Schedule L Energy in kilowatt-hours shall be the customer's contracted Certified Interruptible Demand in kilowatts times the duration of Company's declared Schedule L peak control period in hours.

(Continued on Sheet No. 5-127)

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|----------------------------|------------------------------------------------------------------------------|--------------------------|
| Date Filed: 11-02-05       | By: Cynthia L. Leshner<br>President and CEO of Northern States Power Company | Effective Date: 02-01-07 |
| Docket No. E002/GR-05-1428 |                                                                              | Order Date: 09-01-06     |

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TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER (Continued)

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Section No. 5  
4th Revised Sheet No. 127

**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

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**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the Environmental Improvement Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

C

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. Tier 1 Peak Controlled Schedule L Interruption Rider will apply each time the rider is exercised by a customer during a designated billing period.
2. Customers choosing service under this rider are restricted to the Tier 1 and Standard PDL options of the Peak Controlled Tiered Service or Peak Controlled Tiered Time of Day Service rate schedules. Any rider otherwise available to the customer not in conflict with this rider shall also be available to the customer.
3. Failure to control charges do not apply to customers on this rider requesting Company supply of energy during peak control periods. All other provisions of Tier 1 of the Peak Controlled Tiered Service and Peak Controlled Tiered Time of Day Service rate schedules not in conflict with this rider shall apply.
4. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the MAPP Agreement, including reserve requirements, or when in Company's opinion the reliability of the system is endangered.
5. The customer shall provide to Company a threshold price for energy under MAPP Schedule L below which customer shall automatically purchase energy instead of being interrupted. Above that threshold level, Company shall notify customer of the price in advance for customer to determine their willingness to purchase. Advance notification and Peak Control Period Schedule L Energy arrangement under this rider shall be via telephone, facsimile, or other electronic communication device as specified in the customer's Electric Service Agreement. All costs for the equipment necessary to accomplish these notifications and arrangements shall be paid for by the customer.

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(Continued on Sheet No. 5-128)

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By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 04-25-05

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Order Date: 01-04-05

Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER (Continued)**

Section No. 5  
5th Revised Sheet No. 127

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider and the Renewable Cost Recovery Rider.

D

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

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**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. Tier 1 Peak Controlled Schedule L Interruption Rider will apply each time the rider is exercised by a customer during a designated billing period.
2. Customers choosing service under this rider are restricted to the Tier 1 option of the Peak Controlled Tiered Service or Peak Controlled Tiered Time of Day Service rate schedules. Any rider otherwise available to the customer not in conflict with this rider shall also be available to the customer.
3. Failure to control charges do not apply to customers on this rider requesting Company supply of energy during peak control periods. All other provisions of Tier 1 of the Peak Controlled Tiered Service and Peak Controlled Tiered Time of Day Service rate schedules not in conflict with this rider shall apply.
4. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the MAPP Agreement, including reserve requirements, or when in Company's opinion the reliability of the system is endangered.

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(Continued on Sheet No. 5-128)

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By: Cynthia L. Leshner

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06

Northern States Power Company, a Minnesota corporation  
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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER (Continued)**

Section No. 5  
6th Revised Sheet No. 127

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**FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

**RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Rider, and the Transmission Cost Recovery Rider.

**ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

**SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

**LATE PAYMENT CHARGE**

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

**TERMS AND CONDITIONS OF SERVICE**

1. Tier 1 Peak Controlled Schedule L Interruption Rider will apply each time the rider is exercised by a customer during a designated billing period.
2. Customers choosing service under this rider are restricted to the Tier 1 option of the Peak Controlled Tiered Service or Peak Controlled Tiered Time of Day Service rate schedules. Any rider otherwise available to the customer not in conflict with this rider shall also be available to the customer.
3. Failure to control charges do not apply to customers on this rider requesting Company supply of energy during peak control periods. All other provisions of Tier 1 of the Peak Controlled Tiered Service and Peak Controlled Tiered Time of Day Service rate schedules not in conflict with this rider shall apply.
4. The duration and frequency of interruption periods shall be at the discretion of Company. Interruption periods will normally occur when Company expects a reasonable possibility of system load levels surpassing the level for which NSP has sufficient accredited capacity under the MAPP Agreement, including reserve requirements, or when in Company's opinion the reliability of the system is endangered.

(Continued on Sheet No. 5-128)

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|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER (Continued)

Section No. 5  
1<sup>st</sup> Revised Sheet No. 128

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TERMS AND CONDITIONS OF SERVICE (Continued)

6. Unless customer has arranged with Company in advance for the supply of controllable demand related energy during the control period, upon 10 minute notification from the Company, customer's controllable load shall be curtailed via Company initiated automatic control for a duration as required by the Company.
7. Customers taking service under this rider will require certification of the controllable demand level for each MAPP season in compliance with the MAPP Schedule L requirement. Customer will cooperate fully and assist in the preparation of the information necessary for the certification filing to MAPP.

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Date Filed: 04-24-01

By: Kent T. Larson  
State Vice President, Minnesota

Effective Date: 07-01-01

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Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**TIER 1 PEAK CONTROLLED SCHEDULE L  
INTERRUPTION RIDER (Continued)**

Section No. 5  
2nd Revised Sheet No. 128

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**TERMS AND CONDITIONS OF SERVICE (Continued)**

5. The customer shall provide to Company a threshold price for energy under MEMA Schedule Q, MAPP Product L below which customer shall automatically purchase energy instead of being interrupted. Above that threshold level, Company shall notify customer of the price in advance for customer to determine their willingness to purchase. Advance notification and Peak Control Period Schedule L Energy arrangement under this rider shall be via telephone, facsimile, or other electronic communication device as specified in the customer's Electric Service Agreement. All costs for the equipment necessary to accomplish these notifications and arrangements shall be paid for by the customer.
6. Unless customer has arranged with Company in advance for the supply of Controllable Demand related energy during the control period, upon 10-minute notification from the Company, customer's controllable load shall be curtailed via Company initiated automatic control for a duration as required by the Company.
7. Customers taking service under this rider will require certification of the Controllable Demand level for each MAPP season in compliance with the MEMA Schedule Q, MAPP Product L requirement. Customer will cooperate fully and assist in the preparation of the information necessary for the certification filing to MAPP. Failure of customer to assist in the preparation of the information and/or failure to obtain certification of the Controllable Demand level by MAPP will result in the customer being ineligible for this tariff.

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|-------------|-----------------|----------------------------------------------------|-----------------|----------|
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|             |                 | President and CEO of Northern States Power Company |                 |          |
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EXPERIMENTAL DEMAND AGGREGATION RIDER

Section No. 5  
Original Sheet No. 129

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**EXPERIMENTAL DESIGN**

This pilot shall run for two years from its approval date by the Minnesota Public Utilities Commission. At the end of the experimental two year period, all groups will be terminated, unless the experiment is extended, or unless a permanent replacement rider is created. Each aggregated site must remain on the rider a minimum of six months. A customer must give Company a two month notice prior to any requested aggregation change, such as adding a site to a group, removing a site from a group or disbanding a group.

**AVAILABILITY**

Available as a pilot program for up to twelve commercial/industrial or municipal aggregation groups, with from two to ten demand metered sites per group. All sites within a group must be part of the same legal and financial structure and be under the same authority; loosely-affiliated entities may not form a group. Company reserves the right to reject any proposed grouping based on site affiliation status. All eligible sites under a given authority are not required to be in a group; a customer can choose which of their sites to include within a group. An aggregation group can contain sites with different voltage levels, both firm and interruptible sites and both time of day (TOD) and non-TOD sites.

**RATE**

|                                      |         |
|--------------------------------------|---------|
| Customer Charge per Month per Site   | \$40.00 |
| Demand Credit per Month per Saved kW |         |
| Firm                                 | \$2.25  |
| Interruptible                        | \$0.30  |

**DETERMINATION OF SAVED DEMAND**

Each billing month, the load profiles of all sites within a group will be totaled to determine the group's 15 minute period of coincident peak (CP) demand. Each site's contribution to that peak will be subtracted from that site's non-coincident peak (NCP) demand during the billing month, after adjusting both readings for power factor, as described on the applicable rate schedule for each site. If an aggregation group contains at least one TOD site, then only on peak hours will be considered in determining the CP and NCP. For each site, the difference between the site NCP and CP will determine the saved kW. For firm sites, all saved kW will be credited at the Firm Demand Credit. For interruptible sites, the saved kW above the predetermined demand level (PDL) will be credited at the Interruptible Demand Credit and the portion below the PDL will be credited at the Firm Demand Credit. For example, in a given billing month, an interruptible site with a PDL of 100 kW, an NCP of 130 kW and a CP of 90 kW would have 40 saved kW; 30 kW would receive the Interruptible Demand Credit and 10 kW would receive the Firm Demand Credit.

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(Continued on Sheet No. 5-130)

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Date Filed: 03-18-99

By: James M. Ashley  
General Manager, Minnesota Electric

Effective Date: 06-15-99

Docket No. E002/M-99-359

Order Date: 06-15-99





Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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EXPERIMENTAL DEMAND AGGREGATION RIDER  
(Continued)

Section No. 5  
Original Sheet No. 130

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TERMS AND CONDITIONS OF SERVICE

1. To initiate an aggregation group, a customer must sign a contract with Company, stating which sites will initially be group members.
2. Each site within an aggregation group must have a metering device capable of recording 15 minute interval data. If a site does not currently have such a device, Company will install one. Furthermore, prior to any site being billed on this rider, Company must have at least a three month history of that site's interval data.
3. Each site must have the ability to automatically transmit aggregation data to Company's billing office. Initially, Company will attempt to gather aggregation data via shared phone lines. As automatic meter reading becomes available, it may replace the shared phone lines.
4. Company will attempt to read all sites within a group on the same day and in the same billing cycle. When Company becomes aware that a site will have incomplete data, Company will dispatch a meter reader to hand-collect whatever data is available at the site. If data is still missing, Company will use a site's historic usage pattern and various estimation methods to estimate that site's load pattern.

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Date Filed: 03-18-99

By: James M. Ashley  
General Manager, Minnesota Electric

Effective Date: 06-15-99

Docket No. E002/M-99-359

Order Date: 06-15-99



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CITY REQUESTED FACILITIES SURCHARGE RIDER

Section No. 5  
Original Sheet No. 131

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**APPLICABILITY**

Applicable to bills for electric service provided under the Company's retail rate schedules in a City requesting or ordering the installation of non-standard underground Distribution Facilities. The Excess Expenditure costs for these Special Facilities are to be collected from customers located within such City in accordance with the provisions in the General Rules and Regulations, Section 5.3, SPECIAL FACILITIES.

**RATE**

In each applicable City, there shall be included in the monthly minimum billing on each customer's bill a separately itemized surcharge line item determined in accordance with this Rider entitled City Requested Special Facilities. The City Requested Special Facilities Surcharge shall not be subject to current month billing adjustments or City surcharges and shall be subject to any applicable sales taxes.

**DETERMINATION OF CITY REQUESTED FACILITIES SURCHARGE**

The City Requested Special Facilities Surcharge for each applicable City project shall be calculated by determining a Class Facilities Surcharge to be applied to the Average Monthly Customers in the designated City such that the total Excess Expenditure plus carrying charges in the City Project Tracker Account are recovered over the designated Recovery Period.

Average Monthly Customers shall be the projected average number of active customers in each applicable customer classification located in the City for the designated Recovery Period.

Class Facilities Surcharge shall be the surcharge amount for each applicable customer classification determined in accordance with the Rules for Application.

City Project Tracker Account is a regulatory asset account representing the sum of the following:

- (1) The total Excess Expenditures for each Distribution Facilities undergrounding project in such City,
- (2) Monthly carrying charges on the under recovered or over recovered monthly balance in the City Project Tracker Account based on the overall rate of return from the Company's most recent electric general rate case decision,
- (3) Less the recovered project costs collected to date through the applicable City's Facilities Surcharge.

Recovery Period Is the number of months the City Requested Special Facilities Surcharge shall be applied to bills for a designated City project determined in accordance with the Rules for Application.

Excess Expenditures shall be determined in accordance with the provisions in the General Rules and Regulations, Section 5.3.

(Continued on Sheet No. 5-132)

Date Filed: 06-11-02

By: Kent T. Larson

Effective Date: 11-06-02

State Vice President – Minnesota & Dakotas

Docket No. E002/M-99-799

Order Date: 11-06-02

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

**CITY REQUESTED FACILITIES SURCHARGE RIDER**

Section No. 5  
1st Revised Sheet No. 131

**APPLICABILITY**

Applicable to bills for electric service provided under the Company's retail rate schedules in a City ordering the installation of non-standard underground Distribution Facilities. The Excess Expenditure costs for these Special Facilities are to be collected from customers located within such City in accordance with the provisions in the General Rules and Regulations, Section 5.3, SPECIAL FACILITIES.

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Company will provide notice to and affected City of any miscellaneous rate filing by Company under Minn. Stat. §216B16, Subd. 1 to establish a Special Facilities surcharge applicable to customers in such City.

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**RATE**

In each applicable City, there shall be included in the monthly minimum billing on each customer's bill a separately itemized surcharge line item determined in accordance with this Rider entitled City Requested Special Facilities. The City Requested Special Facilities Surcharge shall not be subject to current month billing adjustments or City surcharges and shall be subject to any applicable sales taxes.

**DETERMINATION OF CITY REQUESTED FACILITIES SURCHARGE**

The City Requested Special Facilities Surcharge for each applicable City project shall be calculated by determining a Class Facilities Surcharge to be applied to the Average Monthly Customers in the designated City such that the total Excess Expenditure plus carrying charges in the City Project Tracker Account are recovered over the designated Recovery Period.

Average Monthly Customers shall be the projected average number of active customers in each applicable customer classification located in the City for the designated Recovery Period.

Class Facilities Surcharge shall be the surcharge amount for each applicable customer classification determined in accordance with the Rules for Application.

City Project Tracker Account is a regulatory asset account representing the sum of the following:

- (1) The total Excess Expenditures for each Distribution Facilities undergrounding project in such City,
- (2) Monthly carrying charges on the under recovered or over recovered monthly balance in the City Project Tracker Account based on the overall rate of return from the Company's most recent electric general rate case decision,
- (3) Less the recovered project costs collected to date through the applicable City's Facilities Surcharge.

Recovery Period is the number of months the City Requested Special Facilities Surcharge shall be applied to bills for a designated City project determined in accordance with the Rules for Application.

Excess Expenditures shall be determined in accordance with the provisions in the General Rules and Regulations, Section 5.3.

(Continued on Sheet No. 5-132)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



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CITY REQUESTED FACILITIES SURCHARGE RIDER  
(Continued)

Section No. 5  
Original Sheet No. 132

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RULES FOR APPLICATION

1. The Recovery Period shall not commence until the City Requested Facilities Surcharge to be applied to bills is at least \$0.25 per customer per month. A surcharge of \$0.25 up to and including \$1.00 per customer regardless of customer class may be applied for a Recovery Period of exactly one month (e.g., a one-time surcharge).
2. For a Recovery Period greater than one month, the Class Facilities Surcharge per month per customer in each non-residential customer class for any month in which a Residential Class Facilities Surcharge is applicable shall be as follows:
  - a. Commercial & Industrial (C&I), Street Lighting and Municipal – Non-Demand Billed: Equal to the Residential Class Facilities Surcharge.
  - b. Small C&I and Small Municipal – Demand Billed: Three times the Residential Class Facilities Surcharge.
  - c. Large C&I – Demand Billed: Four times the Residential Class Facilities Surcharge.

However, whenever the Non-residential Class Facilities Surcharges to be billed exceed the Customer Charge applicable on a customer account, the Class Facilities Surcharge for that account shall be equal to such Customer Charge.

3. A Residential Class Facilities Surcharge of \$0.25 up to and including \$1.00 per Residential customer per month will be applied each month whenever the City Project Tracker Account balance to be collected allows for a Recovery Period of 36 months or less.
4. A Residential Class Facilities Surcharge of over \$1.00, up to and including \$4.50, per Residential customer per month will be applied each month for a Recovery Period of 36 months whenever the City Project Tracker Account balance is uncollectable at a Residential Class Facilities Surcharge level of \$1.00 or less, provided that the surcharge amount for any Residential class customer account receiving a Low Income Energy Discount shall not exceed \$1.00 per month.
5. A Residential Class Facilities Surcharge of \$4.50 per Residential customer per month for a Recovery Period of 36 months up to and including 60 months will be applied only when necessary to recover the City Project Tracker Account balance, provided a surcharge of \$4.50 may be collected pending Commission action on a Company petition or City complaint to modify the design of the rate surcharge for a specific project which cannot be recovered in 60 months.

(Continued on Sheet No. 5-133)

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|             |               |                                            |                 |          |
|-------------|---------------|--------------------------------------------|-----------------|----------|
| Date Filed: | 06-11-02      | By: Kent T. Larson                         | Effective Date: | 11-06-02 |
|             |               | State Vice President – Minnesota & Dakotas |                 |          |
| Docket No.  | E002/M-99-799 |                                            | Order Date:     | 11-06-02 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

**CITY REQUESTED FACILITIES SURCHARGE RIDER  
(Continued)**

Section No. 5  
Original Sheet No. 132

**RULES FOR APPLICATION**

1. The Recovery Period shall not commence until the City Requested Facilities Surcharge to be applied to bills is at least \$0.25 per customer per month. A surcharge of \$0.25 up to and including \$1.00 per customer regardless of customer class may be applied for a Recovery Period of exactly one month (e.g., a one-time surcharge).
2. For a Recovery Period greater than one month, the Class Facilities Surcharge per month per customer in each non-residential customer class for any month in which a Residential Class Facilities Surcharge is applicable shall be as follows:
  - a. Commercial & Industrial (C&I), Street Lighting and Municipal – Non-Demand Billed: Equal to the Residential Class Facilities Surcharge.
  - b. Small C&I and Small Municipal – Demand Billed: Three times the Residential Class Facilities Surcharge.
  - c. Large C&I – Demand Billed: Four times the Residential Class Facilities Surcharge.

However, whenever the Non-residential Class Facilities Surcharges to be billed exceed the Customer Charge applicable on a customer account, the Class Facilities Surcharge for that account shall be equal to such Customer Charge.

3. A Residential Class Facilities Surcharge of \$0.25 up to and including \$1.00 per Residential customer per month will be applied each month whenever the City Project Tracker Account balance to be collected allows for a Recovery Period of 36 months or less.
4. A Residential Class Facilities Surcharge of over \$1.00, up to and including \$4.50, per Residential customer per month will be applied each month for a Recovery Period of 36 months whenever the City Project Tracker Account balance is uncollectable at a Residential Class Facilities Surcharge level of \$1.00 or less, provided that the surcharge amount for any Residential class customer account receiving a Low Income Energy Discount shall not exceed \$1.00 per month.
5. A Residential Class Facilities Surcharge of \$4.50 per Residential customer per month for a Recovery Period of 36 months up to and including 60 months will be applied only when necessary to recover the City Project Tracker Account balance, provided a surcharge of \$4.50 may be collected pending Commission action on a Company petition or City complaint to modify the design of the rate surcharge for a specific project which cannot be recovered in 60 months.

(Continued on Sheet No. 5-133)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



Northern States Power Company

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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**CITY REQUESTED FACILITIES SURCHARGE RIDER**  
(Continued)

Section No. 5  
Original Sheet No. 133

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**RULES FOR APPLICATION (Continued)**

6. The Class Facilities Surcharges may be adjusted annually and in the last 6 months of the Recovery Period to more closely recover the balance remaining in the City Project Tracker Account.
7. Subject to the limits on monthly surcharge amounts set forth above, the Class Facilities Surcharges may also be increased at any time, with notice as provided in Section 5.3 of the General Rules and Regulations, in order to recover Excess Expenditures associated with additional Distribution Facilities undergrounding projects requested or ordered by City.

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Date Filed: 06-11-02

By: Kent T. Larson  
State Vice President – Minnesota & Dakotas

Effective Date: 11-06-02

Docket No. E002/M-99-799

Order Date: 11-06-02

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**CITY REQUESTED FACILITIES SURCHARGE RIDER**  
**(Continued)**

Section No. 5  
Original Sheet No. 133

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**RULES FOR APPLICATION (Continued)**

6. The Class Facilities Surcharges may be adjusted annually and in the last 6 months of the Recovery Period to more closely recover the balance remaining in the City Project Tracker Account.
7. Subject to the limits on monthly surcharge amounts set forth above, the Class Facilities Surcharges may also be increased at any time, with notice as provided in Section 5.3 of the General Rules and Regulations, in order to recover Excess Expenditures associated with additional Distribution Facilities undergrounding projects requested or ordered by City.

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Date Filed: 11-02-05

By: Cynthia L. Leshar

Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428

Order Date: 09-01-06



Northern States Power Company  
Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**VOLUNTARY RENEWABLE AND HIGH-EFFICIENCY ENERGY  
PURCHASE (WINDSOURCE PROGRAM) RIDER**

Section No. 5  
Original Sheet No. 134

**AVAILABILITY**

Available to any customer who elects to apply an adjustment to blocks of electric energy usage to contribute to the development of renewable and high-efficiency energy resources.

**RIDER**

Voluntary Renewable Adjustment must be elected in blocks of 100 kWh up to customer's average monthly metered electric energy use per month. The Adjustment will add \$2.00 per 100 kWh block elected per billing month. This charge of \$2.00 per 100 kWh block shall be applied as an adjustment to customer's bill under the standard retail tariff each billing month according to the number of energy block(s) purchased. The customer may nominate renewable energy in 100 kWh blocks up to their average monthly usage based on the prior twelve months of usage. This Adjustment is not subject to Fuel Clause Rider but is subject to Conservation Improvement Program (CIP) Adjustment, any other applicable adjustments and surcharges including city surcharge, or sales tax. The Voluntary Renewable Adjustment will appear on the bill as "WindsorSource Program." Amounts collected pursuant to the Adjustment will be expended on a program, filed with the Commission, to develop renewable and high efficiency energy resources. The Adjustment charge does not represent the purchase of 100 kWh blocks of renewable energy.

**TERMS AND CONDITIONS OF SERVICE**

1. The minimum subscription and to be billed each month is one 100 kWh block. Residential customers must agree to be on the program for a minimum of 12 consecutive months. For non-residential customers the minimum subscription period is three years. After the minimum period customer could continue month to month thereafter or terminate the subscription with 30 days notice.
2. In the event customer's metered energy use is lower than the subscribed energy blocks, the additional charge of the last 100 kWh block will be prorated accordingly. For customers on time of day tariffs the prorates are based on total on-peak and off-peak kWh use in similar manner.
3. The discounts under Residential Controlled Air Conditioning and Water Heating Rider and Commercial and Industrial Controlled Air Conditioning Riders are not applicable to the charges under this Rider.
4. The Company will maintain accounting of the monthly balance of total revenues collected under the Adjustment and the expenses associated with offering this Adjustment, including the renewable energy purchases, marketing and other costs for this program. The Company will submit reports to the Commission each May 1, or as otherwise ordered in relation to the tracker accounting.
5. This Rider is provided to satisfy the conditions of Minnesota Statutes, Chapter 216B.169, subd.2 related to renewable and high-efficiency energy rate options. The sales arrangements of renewable energy from the WindsorSource program supplies are such that the power supply is sold only once to retail customers.

Date Filed: 06-11-02

By: Kent T. Larson  
State Vice President – Minnesota & Dakotas

Effective Date: 02-01-03

Docket No. E002/M-01-1479

Order Date: 01-10-03



Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**VOLUNTARY RENEWABLE AND HIGH-EFFICIENCY ENERGY  
PURCHASE (WINDSOURCE PROGRAM) RIDER**

Section No. 5  
1st Revised Sheet No. 134

**AVAILABILITY**

Available to any customer who elects to apply an adjustment to blocks of electric energy usage to contribute to the development of renewable and high-efficiency energy resources.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

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**RIDER**

Voluntary Renewable Adjustment must be elected in blocks of 100 kWh up to customer's average monthly metered electric energy use per month. The Adjustment will add **\$3.53** per 100 kWh block elected per billing month. This charge of **\$3.53** per 100 kWh block shall be applied as an adjustment to customer's bill under the standard retail tariff each billing month according to the number of energy block(s) purchased. The customer may nominate renewable energy in 100 kWh blocks up to their average monthly usage based on the prior twelve months of usage. This Adjustment is not subject to Fuel Clause Rider but is subject to any other applicable adjustments and surcharges including city surcharge, or sales tax. The Voluntary Renewable Adjustment will appear on the bill as "Windsor Program." Amounts collected pursuant to the Adjustment will be expended on a program, filed with the Commission, to develop renewable and high efficiency energy resources. The Adjustment charge does not represent the purchase of 100 kWh blocks of renewable energy.

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**TERMS AND CONDITIONS OF SERVICE**

1. The minimum subscription and to be billed each month is one 100 kWh block. Residential customers must agree to be on the program for a minimum of 12 consecutive months. For non-residential customers the minimum subscription period is three years. After the minimum period customer could continue month to month thereafter or terminate the subscription with 30 days notice.
2. In the event customer's metered energy use is lower than the subscribed energy blocks, the additional charge of the last 100 kWh block will be prorated accordingly. For customers on time of day tariffs the prorates are based on total on-peak and off-peak kWh use in similar manner.
3. The discounts under Residential Controlled Air Conditioning and Water Heating Rider and Commercial and Industrial Controlled Air Conditioning Riders are not applicable to the charges under this Rider.
4. The Company will maintain accounting of the monthly balance of total revenues collected under the Adjustment and the expenses associated with offering this Adjustment, including the renewable energy purchases, marketing and other costs for this program. The Company will submit reports to the Commission each May 1, or as otherwise ordered in relation to the tracker accounting. If the accumulated tracker balance indicates the WindSource charge is materially out of line with the costs of the Program, the Company will petition the Commission for authority to revise the charge appropriately.

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(Continued on Sheet No. 134.1)

|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 | Order Date:                                        |                 | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**VOLUNTARY RENEWABLE AND HIGH-EFFICIENCY ENERGY  
PURCHASE (WINDSOURCE PROGRAM) RIDER (Continued)**

Section No. 5  
Original Sheet No. 134.1

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5. This Rider is provided to satisfy the conditions of Minnesota Statutes, Chapter 216B.169, subd.2 related to renewable and high-efficiency energy rate options. The sales arrangements of renewable energy from the Windsorce program supplies are such that the power supply is sold only once to retail customers.

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Date Filed: 11-02-05

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 02-01-07

Docket No. E002/GR-05-1428

Order Date: 09-01-06



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WAPA BILL CREDITING PROGRAM RIDER

Section No. 5  
Original Sheet No. 135

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**AVAILABILITY**

This rider is available on a voluntary basis and is limited to customers who are eligible for the Western Area Power Administration ("Western" or "WAPA") Bill Crediting Program.

**TERM OF SERVICE**

Service under this rider shall be for a period not less than 90 days.

**PRICING METHODOLOGY**

The WAPA Bill Credit shall be calculated as specified in the Commission approved Bill Crediting Agreement between the customer and the Company.

**BILL DETERMINATION**

The WAPA Bill Credit will be applied to the customer's standard monthly bill rendered after each monthly billing period.

**SPECIAL PROVISIONS**

1. Eligibility for the Program, and thus this Rider, is determined by the customer and Western, and not by Xcel Energy.
2. If there is a change in the legal identity of the customer receiving service under this Rider, credit under this Rider shall be terminated unless Xcel Energy, Western and the customer determine otherwise.
3. Changes are subject to the Agreement for Bill Crediting arrangements between Xcel Energy, Western and the customer, a copy of which is contained in Section 7 of this Electric Rate Book.

**RULES AND REGULATIONS**

Service under this Rider is subject to orders of the Minnesota Public Utilities Commission and to the General Rules and Regulations section of this Electric Rate Book.

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Date Filed: 05-02-02

By: Kent T Larson  
State Vice President, Minnesota

Effective Date: 04-01-01

Docket No. E002/M-02-631

Order Date: 07-17-02

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**WAPA BILL CREDITING PROGRAM RIDER**

Section No. 5  
Original Sheet No. 135

---

**AVAILABILITY**

This rider is available on a voluntary basis and is limited to customers who are eligible for the Western Area Power Administration ("Western" or "WAPA") Bill Crediting Program.

**TERM OF SERVICE**

Service under this rider shall be for a period not less than 90 days.

**PRICING METHODOLOGY**

The WAPA Bill Credit shall be calculated as specified in the Commission approved Bill Crediting Agreement between the customer and the Company.

**BILL DETERMINATION**

The WAPA Bill Credit will be applied to the customer's standard monthly bill rendered after each monthly billing period.

**SPECIAL PROVISIONS**

1. Eligibility for the Program, and thus this Rider, is determined by the customer and Western, and not by Xcel Energy.
2. If there is a change in the legal identity of the customer receiving service under this Rider, credit under this Rider shall be terminated unless Xcel Energy, Western and the customer determine otherwise.
3. Changes are subject to the Agreement for Bill Crediting arrangements between Xcel Energy, Western and the customer, a copy of which is contained in Section 7 of this Electric Rate Book.

**RULES AND REGULATIONS**

Service under this Rider is subject to orders of the Minnesota Public Utilities Commission and to the General Rules and Regulations section of this Electric Rate Book.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

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RENEWABLE COST RECOVERY ADJUSTMENT RIDER

Section No. 5  
Original Sheet No. 136

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**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Renewable Cost Recovery (RCR) adjustment, which shall be the RCR Adjustment Factor multiplied by the customer's monthly billing kWh for electric service. This RCR adjustment shall be calculated before city surcharge and sales tax.

**DETERMINATION OF RCR ADJUSTMENT FACTORS**

A separate RCR Adjustment Factor shall be calculated for the following six customer groups: (1) Residential, (2) Small Commercial Non-Demand, Demand Billed – (3) Secondary Voltage, (4) Primary Voltage, (5) Transmission Transformed & Transmission Voltage, and (6) Street Lighting. The RCR Adjustment Factor for each group shall be the quotient obtained by dividing each group's allocated share of the forecasted balance of the RCR Tracker Account, by the group's forecasted retail sales for the calendar year. This quotient shall be rounded to the nearest \$0.00001 per kWh.

The RCR Adjustment Factor for each customer group may be adjusted annually with approval of the Minnesota Public Utilities Commission (Commission). Each RCR Adjustment Factor shall apply to bills rendered on and after January 1<sup>st</sup> of the year. The RCR factor for each rate schedule is:

|                                            |           |
|--------------------------------------------|-----------|
| Residential                                | \$0.00020 |
| Small General Service (non-demand)         | \$0.00017 |
| Demand Billed - Secondary                  | \$0.00016 |
| General Service - Primary Voltage          | \$0.00019 |
| Demand Billed - Transmission & Transformed | \$0.00018 |
| Street Lighting                            | \$0.00017 |

Recoverable Renewable Costs shall be the annual revenue requirements associated with renewable energy projects (a) not recovered through base rates, (b) recorded in the Renewable Investment Tracker Account for the designated period, and (c) determined by the Commission to be eligible for recovery under this RCR Adjustment Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the Renewable Investment Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the RCR Adjustment shall be credited to the Renewable Investment Tracker Account.

Forecasted retail sales shall be the estimated retail electric sales by customer group for the designated recovery period.

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(Continued on Sheet No. 5-136.1)

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Date Filed: 11-25-03

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 12-01-04

Docket No. E-002/03-1882

Order Date: 11-29-04

**RENEWABLE TRANSMISSION COST RECOVERY RIDER**

Section No. 5  
1st Revised Sheet No. 136

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**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Renewable Transmission Cost Recovery (RCR) adjustment, which shall be the RCR Adjustment Factor multiplied by the customer's monthly billing kWh for electric service. This RCR Adjustment shall be calculated before city surcharge and sales tax.

**DETERMINATION OF RCR ADJUSTMENT FACTORS**

A separate RCR Adjustment Factor shall be calculated for the following six customer groups: (1) Residential, (2) Small Commercial Non-Demand, Demand Billed – (3) Secondary Voltage, (4) Primary Voltage, (5) Transmission Transformed & Transmission Voltage, and (6) Street Lighting. The RCR Adjustment Factor for each group shall be the quotient obtained by dividing each group's allocated share of the forecasted balance of the RCR Tracker Account, by the group's forecasted retail sales for the calendar year. This quotient shall be rounded to the nearest \$0.00001 per kWh.

The RCR Adjustment Factor for each customer group may be adjusted annually with approval of the Minnesota Public Utilities Commission (Commission). Each RCR Adjustment Factor shall apply to bills rendered on and after January 1st of the year. The RCR factor for each rate schedule is:

|                                            |                   |
|--------------------------------------------|-------------------|
| Residential                                | \$0.00014 per kWh |
| Small General Service (non-demand)         | \$0.00011 per kWh |
| Demand Billed - Secondary                  | \$0.00010 per kWh |
| General Service - Primary Voltage          | \$0.00011 per kWh |
| Demand Billed - Transmission & Transformed | \$0.00011 per kWh |
| Street Lighting                            | \$0.00013 per kWh |

Recoverable Renewable Transmission Costs shall be the annual revenue requirements for transmission costs associated with mandated renewable energy projects indicated in Minnesota Statute Section 216B.1645 (a) not recovered through base rates, (b) not considered to be operational and maintenance costs, (c) recorded in the RCR Tracker Account for the designated period, and (d) determined by the Commission to be eligible for recovery under this Renewable Transmission Cost Recovery Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the Renewable Transmission Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the RCR Adjustment shall be credited to the Renewable Transmission Tracker Account.

Forecasted retail sales shall be the estimated retail electric sales by customer group for the designated recovery period.

(Continued on Sheet No. 5-136.1)

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RENEWABLE TRANSMISSION COST RECOVERY RIDER**

Section No. 5  
2nd Revised Sheet No. 136

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**CANCELED**

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

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RENEWABLE COST RECOVERY ADJUSTMENT RIDER  
(Continued)

Section No. 5  
Original Sheet No. 136.1

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**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the Tracker Account will be calculated reflecting the difference between the RCR Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in calculating the RCR Adjustment Factor for each customer group effective with the start of the next designated recovery period. No carrying cost shall be applied.

For example, the Year 1 revenue requirements versus RCR Adjustment recoveries would be determined by May 1 of Year 2, at which time the Company would record an adjustment to the Tracker Account. The difference between the Year 1 revenue requirements and Year 1 RCR Adjustment recoveries would be included in the calculation of the RCR Adjustment factors filed on October 1 of Year 2 to be effective January 1 of Year 3.

N  
|  
N

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|             |               |                                            |                 |          |
|-------------|---------------|--------------------------------------------|-----------------|----------|
| Date Filed: | 11-25-03      | By: Kent T. Larson                         | Effective Date: | 12-01-04 |
|             |               | Vice President of Jurisdictional Relations |                 |          |
| Docket No.  | E-002/03-1882 |                                            | Order Date:     | 11-29-04 |



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Minneapolis, Minnesota 55401  
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**RENEWABLE TRANSMISSION COST RECOVERY RIDER**  
**(Continued)**

Section No. 5  
1st Revised Sheet No. 136.1

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**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the Tracker Account will be calculated reflecting the difference between the RCR Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in calculating the RCR Adjustment Factor for each customer group effective with the start of the next designated recovery period.

For example, the Year 1 revenue requirements versus RCR Adjustment recoveries would be determined by May 1 of Year 2, at which time the Company would record an adjustment to the Tracker Account. The difference between the Year 1 revenue requirements and Year 1 RCR Adjustment recoveries would be included in the calculation of the RCR Adjustment factors filed on October 1 of Year 2 to be effective January 1 of Year 3.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

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and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MNNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RENEWABLE TRANSMISSION COST RECOVERY RIDER**  
**(Continued)**

Section No. 5  
2nd Revised Sheet No. 136.1

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**CANCELED**

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Date Filed: 08-01-06

By: Cynthia L. Leshner  
President and CEO of Northern States Power Company

Effective Date: 05-01-07

Docket No. E002/M-06-1505

Order Date: 03-29-07

ENVIRONMENTAL IMPROVEMENT RIDER

Section No. 5  
1st Revised Sheet No. 137

APPLICATION

Applicable to bills for electric service provided under the Company's retail rate schedules.

RIDER

There shall be included on each customer's monthly bill an Environmental Improvement Rider (EIR) adjustment. For all but demand-billed customers, the adjustment shall be the Full EIR Energy Adjustment Factor multiplied by the customer's monthly billing kWh for electric service. For demand-billed customers, the adjustment shall be the Reduced EIR Energy Adjustment Factor multiplied by the customer's monthly billing kWh for electric service, plus the EIR Demand Adjustment Factor multiplied by the customer's monthly kW billing demand. These EIR adjustments shall be calculated before city surcharge and sales tax.

DETERMINATION OF EIR ADJUSTMENT FACTORS

The Full EIR Energy Adjustment Factor shall be the quotient obtained by dividing the forecasted balance of the EIR Tracker Account by the forecasted retail sales for the calendar year. The Reduced EIR Energy Adjustment Factor shall be the Full EIR Energy Adjustment Factor multiplied by 50%. The EIR Demand Adjustment Factor shall be the difference between the Full and Reduced factors, multiplied by the class load factor of 56.2% and multiplied by 730 hours in an average month. All factors shall be rounded to the nearest \$0.00001 per kWh. The EIR Adjustment Factors may be adjusted annually with approval of the Minnesota Public Utilities Commission (Commission). The EIR Adjustment Factors shall apply to bills rendered on and after January 1<sup>st</sup> of the year.

The EIR Adjustment Factor for each customer group may be adjusted annually. Each EIR Adjustment Factor shall apply to bills rendered on and after January 1 of the year. The EIR factor for each rate schedule is:

|                      |                                           |
|----------------------|-------------------------------------------|
| Non-Demand Customers | \$0.00122 per kWh                         |
| Demand Customers     | \$0.00061 per kWh and<br>\$0.25011 per kW |

Recoverable EIR Costs shall be the annual revenue requirements associated with emissions reduction projects (a) not recovered through base rates, (b) recorded in the EIR Tracker Account for the designated period, and (c) determined by the Commission to be eligible for recovery under this Rider pursuant to the terms of the Settlement Agreement approved by the Commission on March 8, 2004. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the EIR Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the EIR Adjustment shall be credited to the EIR Tracker Account.

Forecasted retail sales shall be the estimated retail electric sales for the designated recovery period.

Date Filed: 10-03-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/M-02-633

Order Date: 09-15-06

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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENVIRONMENTAL IMPROVEMENT RIDER**

Section No. 5  
1st Revised Sheet No. 137

---

**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the EIR Tracker Account will be calculated reflecting the difference between the EIR Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in calculating the EIR Adjustment Factor for each customer group effective with the start of the next designated recovery period. No carrying cost shall be applied.

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Date Filed: 10-03-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/M-02-633

Order Date: 09-15-06

**ENVIRONMENTAL IMPROVEMENT RIDER**

Section No. 5  
Original Sheet No. 137

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill an Environmental Improvement Rider (EIR) adjustment. For all but demand-billed customers, the adjustment shall be the Full EIR Energy Adjustment Factor multiplied by the customer's monthly billing kWh for electric service. For demand-billed customers, the adjustment shall be the Reduced EIR Energy Adjustment Factor multiplied by the customer's monthly billing kWh for electric service, plus the EIR Demand Adjustment Factor multiplied by the customer's monthly kW billing demand. These EIR adjustments shall be calculated before city surcharge and sales tax.

**DETERMINATION OF EIR ADJUSTMENT FACTORS**

The Full EIR Energy Adjustment Factor shall be the quotient obtained by dividing the forecasted balance of the EIR Tracker Account by the forecasted retail sales for the calendar year. The Reduced EIR Energy Adjustment Factor shall be the Full EIR Energy Adjustment Factor multiplied by 50%. The EIR Demand Adjustment Factor shall be the difference between the Full and Reduced factors, multiplied by the class load factor of 52.5% and multiplied by 730 hours in an average month. All factors shall be rounded to the nearest \$0.00001 per kWh. The EIR Adjustment Factors may be adjusted annually with approval of the Minnesota Public Utilities Commission (Commission). The EIR Adjustment Factors shall apply to bills rendered on and after January 1<sup>st</sup> of the year.

Recoverable EIR Costs shall be the annual revenue requirements associated with emissions reduction projects (a) not recovered through base rates, (b) recorded in the EIR Tracker Account for the designated period, and (c) determined by the Commission to be eligible for recovery under this Rider pursuant to the terms of the Settlement Agreement approved by the Commission on March 8, 2004. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the EIR Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the EIR Adjustment shall be credited to the EIR Tracker Account.

Forecasted retail sales shall be the estimated retail electric sales for the designated recovery period.

**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the EIR Tracker Account will be calculated reflecting the difference between the EIR Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in calculating the EIR Adjustment Factor for each customer group effective with the start of the next designated recovery period. No carrying cost shall be applied.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

Northern States Power Company, a Minnesota Corporation  
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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ENVIRONMENTAL IMPROVEMENT RIDER (Continued)**

Section No. 5  
Original Sheet No. 138

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**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the EIR Tracker Account will be calculated reflecting the difference between the EIR Adjustment recoveries and the revenue requirements for such period. The true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in calculating the EIR Adjustment Factor for each customer group effective with the start of the next designated recovery period. No carrying cost shall be applied.

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Date Filed: 10-03-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 01-01-06

Docket No. E002/M-02-633

Order Date: 09-15-06

STATE ENERGY POLICY RATE RIDER

Section No. 5  
1st Revised Sheet No. 142

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a State Energy Policy Rate Rider which shall be the applicable State Energy Policy Rate Rider factor multiplied by the customer's monthly kWh electric consumption.

**DETERMINATION OF STATE ENERGY POLICY RATE FACTOR**

The applicable State Energy Policy Rate Rider shall be the quotient obtained by dividing the annual State Energy Policy Tracker amount by the annual forecasted kWh sales. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

|             |                    |
|-------------|--------------------|
| Residential | \$0.000086 per kWh |
| Commercial  | \$0.000086 per kWh |

R  
R

Recoverable State Energy Policy Rate Expense

All costs appropriately charged to the State Energy Policy Tracker account shall be eligible for recovery through this Rider, and all revenues received from the State Energy Policy adjustment portion of the Resource Adjustment shall be credited to the State Energy Policy Tracker account.

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Date Filed: 04-06-05

By: Kent T. Larson  
Vice President of Jurisdictional Relations

Effective Date: 07-01-05

Docket No. E,G-002/M-05-0359

Order Date: 05-06-05

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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**STATE ENERGY POLICY RATE RIDER**

Section No. 5  
2nd Revised Sheet No. 142

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a State Energy Policy Rate Rider which shall be the applicable State Energy Policy Rate Rider factor multiplied by the customer's monthly kWh electric consumption.

**DETERMINATION OF STATE ENERGY POLICY RATE FACTOR**

The applicable State Energy Policy Rate Rider shall be the quotient obtained by dividing the annual State Energy Policy Tracker amount by the annual forecasted kWh sales. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

|             |                    |
|-------------|--------------------|
| Residential | \$0.000073 per kWh |
| Commercial  | \$0.000073 per kWh |

**Recoverable State Energy Policy Rate Expense**

All costs appropriately charged to the State Energy Policy Tracker account shall be eligible for recovery through this Rider, and all revenues received from the State Energy Policy adjustment portion of the Resource Adjustment shall be credited to the State Energy Policy Tracker account.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |



RENEWABLE DEVELOPMENT FUND RIDER

Section No. 5  
2nd Revised Sheet No. 143

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Renewable Development Fund charge that shall be the applicable Renewable Development Fund factor multiplied by the customer's monthly kWh electric consumption.

**DETERMINATION OF RENEWABLE DEVELOPMENT FUND FACTOR**

The applicable Renewable Development Fund factor shall be the quotient obtained by dividing the annual Renewable Development Fund Tracker amount by the annual forecasted kWh sales. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

|             |                    |
|-------------|--------------------|
| Residential | \$0.000794 per kWh |
| Commercial  | \$0.000794 per kWh |

R  
R

Recoverable Renewable Development Fund Expense

All costs appropriately charged to the Renewable Development Fund Tracker account shall be eligible for recovery through this Rider, and all revenues received from the Renewable Development Fund portion of the Resource Adjustment shall be credited to the Renewable Development Fund Tracker account.

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Date Filed: 09-30-05

By: Kent T. Larson  
Vice President, Customer and Community Relations

Effective Date: 03-01-06

Docket No. E002/M-05-1570

Order Date: 01-27-06

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Minneapolis, Minnesota 55401  
**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RENEWABLE DEVELOPMENT FUND RIDER**

Section No. 5  
3rd Revised Sheet No. 143

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Renewable Development Fund charge that shall be the applicable Renewable Development Fund factor multiplied by the customer's monthly kWh electric consumption.

**DETERMINATION OF RENEWABLE DEVELOPMENT FUND FACTOR**

The applicable Renewable Development Fund factor shall be the quotient obtained by dividing the annual Renewable Development Fund Tracker amount by the annual forecasted kWh sales. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

|             |                    |
|-------------|--------------------|
| Residential | \$0.000510 per kWh |
| Commercial  | \$0.000510 per kWh |

R  
R

Recoverable Renewable Development Fund Expense

All costs appropriately charged to the Renewable Development Fund Tracker account shall be eligible for recovery through this Rider, and all revenues received from the Renewable Development Fund portion of the Resource Adjustment shall be credited to the Renewable Development Fund Tracker account.

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|             |                |                                                  |                 |          |
|-------------|----------------|--------------------------------------------------|-----------------|----------|
| Date Filed: | 10-02-06       | By: Kent T. Larson                               | Effective Date: | 01-01-07 |
|             |                | Vice President, Customer and Community Relations |                 |          |
| Docket No.  | E002/M-06-1388 |                                                  | Order Date:     | 12-15-06 |

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Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**RENEWABLE DEVELOPMENT FUND RIDER**

Section No. 5  
3rd Revised Sheet No. 143

---

**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Renewable Development Fund charge that shall be the applicable Renewable Development Fund factor multiplied by the customer's monthly kWh electric consumption.

**DETERMINATION OF RENEWABLE DEVELOPMENT FUND FACTOR**

The applicable Renewable Development Fund factor shall be the quotient obtained by dividing the annual Renewable Development Fund Tracker amount by the annual forecasted kWh sales. The factor may be adjusted annually with approval of the Minnesota Public Utilities Commission.

|             |                    |
|-------------|--------------------|
| Residential | \$0.000510 per kWh |
| Commercial  | \$0.000510 per kWh |

R  
R

**Recoverable Renewable Development Fund Expense**

All costs appropriately charged to the Renewable Development Fund Tracker account shall be eligible for recovery through this Rider, and all revenues received from the Renewable Development Fund portion of the Resource Adjustment shall be credited to the Renewable Development Fund Tracker account.

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|             |                 |                                                    |                 |          |
|-------------|-----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 11-02-05        | By: Cynthia L. Leshner                             | Effective Date: | 02-01-07 |
|             |                 | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/GR-05-1428 |                                                    | Order Date:     | 09-01-06 |

**TRANSMISSION COST RECOVERY RIDER**

Section No. 5  
Original Sheet No. 144

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**APPLICATION**

Applicable to bills for electric service provided under the Company's retail rate schedules.

**RIDER**

There shall be included on each customer's monthly bill a Transmission Cost Recovery (TCR) adjustment, which shall be the TCR Adjustment Factor multiplied by the customer's monthly billing kWh for electric service. This TCR Adjustment shall be calculated before city surcharge and sales tax.

**DETERMINATION OF TCR ADJUSTMENT FACTORS**

A separate TCR Adjustment Factor shall be calculated for the following four customer groups: (1) Residential, (2) Commercial Non-Demand, (3) Demand Billed, and (4) Street Lighting. The TCR Adjustment Factor for each group shall be the value obtained by multiplying each group's weighting factor by the average retail cost per kWh. The average retail cost per kWh shall be determined by the forecasted balance of the TCR Tracker Account, divided by the forecasted retail sales for the calendar year. TCR Adjustment Factors shall be rounded to the nearest \$0.00001 per kWh.

The TCR Adjustment Factor for each customer group may be adjusted annually with approval of the Minnesota Public Utilities Commission (Commission). Each TCR Adjustment Factor shall apply to bills rendered beginning January 1st of the year. The TCR factor for each rate schedule is:

|                         |                   |
|-------------------------|-------------------|
| Residential             | \$0.00072 per kWh |
| Commercial (Non-Demand) | \$0.00063 per kWh |
| Demand Billed           | \$0.00045 per kWh |
| Street Lighting         | \$0.00039 per kWh |

Recoverable Transmission Costs shall be the annual revenue requirements for transmission costs associated with transmission projects eligible for recovery under Minnesota Statute Sections 216B.1645 or 216B.16, subd. 7b that are determined by the Commission to be eligible for recovery under this Transmission Cost Recovery Rider. A standard model will be used to calculate the total forecasted revenue requirements for eligible projects for the designated period. All costs appropriately charged to the Transmission Tracker Account shall be eligible for recovery through this Rider, and all revenues recovered from the TCR Adjustment shall be credited to the Transmission Tracker Account.

Forecasted retail sales shall be the estimated total retail electric sales for the designated recovery period.

(Continued on Sheet No. 5-145)

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 05-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-2055 |                                                    | Order Date:     | 03-29-07 |

Northern States Power Company, a Minnesota corporation  
and wholly owned subsidiary of Xcel Energy Inc.  
Minneapolis, Minnesota 55401

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**TRANSMISSION COST RECOVERY RIDER**  
(Continued)

Section No. 5  
Original Sheet No. 145

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**TRUE-UP**

For each 12-month period ending December 31, a true-up adjustment to the Tracker Account will be calculated reflecting the difference between the TCR Adjustment recoveries and the revenue requirements for such period. The total retail true-up adjustment shall be calculated and recorded by no later than May 1 of the following calendar year and will be included in average retail cost used to calculate the TCR Adjustment Factor for each customer group effective with the start of the next designated recovery period.

For example, the Year 1 revenue requirements versus TCR Adjustment recoveries would be determined by May 1 of Year 2, at which time the Company would record an adjustment to the Tracker Account. The difference between the Year 1 revenue requirements and Year 1 TCR Adjustment recoveries would be included in the calculation of the TCR Adjustment factors filed on September 1 of Year 2 to be effective January 1 of Year 3.

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|             |                |                                                    |                 |          |
|-------------|----------------|----------------------------------------------------|-----------------|----------|
| Date Filed: | 08-01-06       | By: Cynthia L. Leshner                             | Effective Date: | 08-01-07 |
|             |                | President and CEO of Northern States Power Company |                 |          |
| Docket No.  | E002/M-06-1505 |                                                    | Order Date:     | 03-29-07 |

**7610.0600 Item F – Annual Electric Utility Report**

Following is Xcel Energy's 2006 Federal Form EIA-861.

### SCHEDULE 1. IDENTIFICATION

**SURVEY CONTACTS:** Persons to contact with question about this form

**RESPONSE DUE DATE:** Please submit by April 30th following the close of calendar year

**Contact** Daryn McCulley  
**Title:** Financial Analyst

**REPORT FOR:** Northern States Power Co 13781

**Phone:** 303 294 2282 **Ext:** FAX: 303 294 2422 **Email:** daryn.mcculley@xcelenergy.com

**REPORTING PERIOD:** 2006

**Supervisor** Jacqueline Reecy  
**Title:** Director of External Reporting

**Phone:** 612 215 4576 **Ext:** FAX: 612 215 4554 **Email:** jacqueline.s.reecy@xcelenergy.com

|   |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |           |            |
|---|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|
| 1 | Legal Name of Industry Participant                              | Northern States Power Co                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Submission Status/Date: | Submitted | 04/30/2007 |
| 2 | Current Address of Principal Business Office                    | 414 Nicollet Mall<br><br>Minneapolis MN 55401                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |           |            |
| 3 | Preparer's Legal Name Operator (if different than line 1)       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |           |            |
| 4 | Current Address of Preparer's Office (if different than line 2) | Daryn McCulley<br>1225 17th Street<br><br>Denver CO 80202                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |           |            |
| 5 | Type of Ownership and Function                                  | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Federal<br/> <input type="checkbox"/> Political Subdivision<br/> <input type="checkbox"/> Municipal Marketing Authority<br/> <input type="checkbox"/> Cooperative<br/> <input type="checkbox"/> Independent Power Producer or Qualifying Facility         </div> <div style="width: 50%;"> <input type="checkbox"/> State<br/> <input type="checkbox"/> Municipal<br/> <input checked="" type="checkbox"/> Investor-Owned<br/> <input type="checkbox"/> Power Marketer (or Energy Service Provider)         </div> </div> |                         |           |            |

13781

**SCHEDULE 2, PART A. GENERAL INFORMATION**LINE NO.



REPORT FOR: Northern States Power Co

13781

REPORT PERIOD ENDING: 2006

SCHEDULE 2. PART B ENERGY SOURCES AND DISPOSITION

|    | ENERGY SOURCES                                     | MEGAWATTHOURS |    | DISPOSITION OF ENERGY                                 | MEGAWATTHOURS |
|----|----------------------------------------------------|---------------|----|-------------------------------------------------------|---------------|
| 1  | Net Generation                                     | 33,472,940    | 11 | Sales to Ultimate Consumers                           | 35,923,013    |
| 2  | Purchases from Electricity Suppliers               | 19,159,766    | 12 | Sales For Resale                                      | 15,309,946    |
| 3  | Exchanged Received (In)                            |               | 13 | Energy Furnished Without Charge                       |               |
| 4  | Exchanged Delivered (Out)                          |               | 14 | Energy Consumed By Respondent Without Charge          | 29,861        |
| 5  | Exchanged Net                                      |               |    |                                                       |               |
| 6  | Wheeled Received (In)                              | 1,197,752     |    |                                                       |               |
| 7  | Wheeled Delivered (Out)                            | 1,169,228     | 15 | Total Energy Losses (positive number)                 | 1,398,410     |
| 8  | Wheeled Net                                        | 28,524        |    |                                                       |               |
| 9  | Transmission by Others Losses<br>(Negative Number) |               |    |                                                       |               |
| 10 | Total Sources (sum of lines 1, 2, 5, 8 & 9)        | 52,661,230    | 16 | Total Disposition (sum of lines 11, 12, 13, 14, & 15) | 52,661,230    |

REPORT FOR: Northern States Power Co

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SCHEDULE 2, PART C. CUSTOMER SERVICE PROGRAM

**Green Pricing** programs allow customers to purchase power generated from renewable resources and to pay for renewable energy development. Provide the number of customers in these programs by state and customer class.

**Net Metering** programs allow customers to sell excess power they generate back to the electrical grid to offset consumption. Provide the number of customers in these programs by state and customer class.

NUMBER OF CUSTOMER BY CUSTOMER CLASS

| STATE | TYPE OF CUSTOMER SERVICE PROGRAM<br>(a) | RESIDENTIAL<br>(b) | COMMERCIAL<br>(c) | INDUSTRIAL<br>(d) | TRANSPORTATION<br>(e) | TOTAL<br>(d) |
|-------|-----------------------------------------|--------------------|-------------------|-------------------|-----------------------|--------------|
| MN    | Green Pricing                           | 19,946             | 118               |                   |                       | 20,064       |
|       | Net Metering                            | 68                 | 9                 |                   |                       | 77           |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |
|       | Green Pricing                           |                    |                   |                   |                       |              |
|       | Net Metering                            |                    |                   |                   |                       |              |

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SCHEDULE 3. ELECTRIC OPERATING REVENUE

| LINE NO. | TYPE OF OPERATING REVENUE OR COST                                                          | THOUSAND DOLLARS |  |
|----------|--------------------------------------------------------------------------------------------|------------------|--|
| 1        | Electric Operating Revenue From Sales To Ultimate Customers (Schedule 4, Parts A, B and D) | 2,591,785        |  |
| 2        | Revenue From Unbundled (Delivery) Customers (Schedule 4, Part C)                           |                  |  |
| 3        | Electric Operating Revenue from Sale for Resale                                            | 385,194          |  |
| 4        | Electric Credits / Other Adjustments                                                       |                  |  |
| 5        | Other Electric Operating Revenue                                                           | 394,431          |  |
| 6        | Total Electric Operating Revenue (sum of lines 1, 2, 3, 4 and 5)                           | 3,371,410        |  |

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SCHEDULE 4, PART -A . SALES TO ULTIMATE CUSTOMERS, FULL SERVICE - ENERGY AND DELIVERY SERVICE (BUNDLED)

| STATE / TERRITORY          | MN | RESIDENTIAL<br>(a) | COMMERCIAL<br>(b) | INDUSTRIAL<br>(c) | TRANSPORTATION<br>(d) | TOTAL<br>(e) |
|----------------------------|----|--------------------|-------------------|-------------------|-----------------------|--------------|
| Revenue (thousand dollars) |    | 812792             | 977999            | 529027            | 1676                  | 2321494      |
| Megawatthours              |    | 8876544            | 13899161          | 9129744           | 21085                 | 31926534     |
| Number of Customers        |    | 1056669            | 126303            | 470               | 1                     | 1183443      |
| STATE                      | ND |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |    | 53651              | 68078             | 17036             | 0                     | 138765       |
| Megawatthours              |    | 733006             | 1056340           | 360130            | 0                     | 2149476      |
| Number of Customers        |    | 72350              | 11864             | 22                | 0                     | 84236        |
| STATE                      | SD |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |    | 53109              | 60172             | 18245             | 0                     | 131526       |
| Megawatthours              |    | 613421             | 895233            | 338349            | 0                     | 1847003      |
| Number of Customers        |    | 66583              | 9980              | 18                | 0                     | 76581        |
| STATE                      |    |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |    |                    |                   |                   |                       |              |
| Megawatthours              |    |                    |                   |                   |                       |              |
| Number of Customers        |    |                    |                   |                   |                       |              |
| STATE                      |    |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |    |                    |                   |                   |                       |              |
| Megawatthours              |    |                    |                   |                   |                       |              |
| Number of Customers        |    |                    |                   |                   |                       |              |

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SCHEDULE 4, PART -B . SALES TO ULTIMATE CUSTOMERS. ENERGY ONLY (WITHOUT DELIVERY SERVICE)

| STATE / TERRITORY          | RESIDENTIAL<br>(a) | COMMERCIAL<br>(b) | INDUSTRIAL<br>(c) | TRANSPORTATION<br>(d) | TOTAL<br>(e) |
|----------------------------|--------------------|-------------------|-------------------|-----------------------|--------------|
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |

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SCHEDULE 4, PART -C. SALES TO ULTIMATE CUSTOMERS. DELIVERY ONLY SERVICE (AND ALL OTHER CHARGES)

| STATE / TERRITORY          | RESIDENTIAL<br>(a) | COMMERCIAL<br>(b) | INDUSTRIAL<br>(c) | TRANSPORTATION<br>(d) | TOTAL<br>(e) |
|----------------------------|--------------------|-------------------|-------------------|-----------------------|--------------|
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |

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SCHEDULE 4, PART D. BUNDLED SERVICE BY RETAIL ENERGY PROVIDERS, OR ANY POWER MARKETER THAT PROVIDES "BUNDLED SERVICE"

| STATE / TERRITORY          | RESIDENTIAL<br>(a) | COMMERCIAL<br>(b) | INDUSTRIAL<br>(c) | TRANSPORTATION<br>(d) | TOTAL<br>(e) |
|----------------------------|--------------------|-------------------|-------------------|-----------------------|--------------|
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |
| STATE                      |                    |                   |                   |                       |              |
| Revenue (thousand dollars) |                    |                   |                   |                       |              |
| Megawatthours              |                    |                   |                   |                       |              |
| Number of Customers        |                    |                   |                   |                       |              |

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Utility Id 13781

REPORTING PERIOD: 2006

**Mergers and/or acquisitions during the reporting month**

**If Yes, Provide:**

**Date of Merger or Acquisition**

**Company merged with or acquired**

**Name of new parent company**

**Address**

**City**

**State, Zip**

**Contact**

**Telephone No.**

**Email address**



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SCHEDULE 6A. DEMAND - SIDE MANAGEMENT INFORMATION

|          |                                                                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| LINE NO. |                                                                                                                                                         |
| 1        | Do you have company administered Demand-Side Management Programs? (check Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2        | If your Demand-Side Management activities are reported on Schedule 5 of another company identify the company                                            |

NOTE: If you answered "No" to line 1 or another Company Reports your Demand-Side Management Activities on their Schedule 5, do not complete the rest of this Schedule.

| PART A. ACTUAL EFFECTS |                                                                  |                     |                   |                   |                       |                    |                   |                   |                       |
|------------------------|------------------------------------------------------------------|---------------------|-------------------|-------------------|-----------------------|--------------------|-------------------|-------------------|-----------------------|
|                        |                                                                  | INCREMENTAL EFFECTS |                   |                   |                       |                    |                   |                   |                       |
| ENERGY EFFICIENCY      |                                                                  | RESIDENTIAL<br>(a)  | COMMERCIAL<br>(b) | INDUSTRIAL<br>(c) | TRANSPORTATION<br>(d) | RESIDENTIAL<br>(e) | COMMERCIAL<br>(f) | INDUSTRIAL<br>(g) | TRANSPORTATION<br>(h) |
| 3                      | Energy Effects (megawatthours)                                   | 11,816              | 49,843            | 192,005           |                       | 292,484            | 1,998,603         | 1,749,759         |                       |
| 4                      | Actual Peak Reduction (megawatts)                                | 9                   | 11                | 31                |                       | 170                | 459               | 370               |                       |
| LOAD MANAGEMENT        |                                                                  |                     |                   |                   |                       |                    |                   |                   |                       |
| 5                      | Energy Effects (megawatthours)                                   | 505                 | 2,215             | 1,270             |                       | 7,932              | 24,649            | 22,177            |                       |
| 6                      | Potential Peak Reduction (megawatts)                             | 24                  | 12                | 16                |                       | 348                | 454               | 72                |                       |
| 7                      | Actual Peak Reduction (megawatts)                                | 24                  | 12                | 16                |                       | 348                | 454               | 72                |                       |
| 7A                     | Were these savings verified through an independent evaluation? N |                     |                   |                   |                       |                    |                   |                   |                       |

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**SCHEDULE 6 PART B: ANNUAL COSTS (THOUSAND DOLLARS AND PERCENTAGES OF TOTAL)**

|    | (a)<br>Costs<br>(thousand dollars)                           | (b)<br>Percentage of<br>costs by State | (c)<br>Percentage of<br>costs by State | (d)<br>Percentage of<br>costs by State | (e)<br>Percentage of<br>costs by State |
|----|--------------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
|    |                                                              | MN                                     |                                        |                                        |                                        |
| 8  | Directs Costs excluding incentive payments-Energy Efficiency | 13,765                                 | 100                                    |                                        |                                        |
| 9  | Direct Costs excluding incentive payments- Load Management   | 7,741                                  | 100                                    |                                        |                                        |
| 10 | Incentive Payments-Energy Efficiency                         | 17,482                                 | 100                                    |                                        |                                        |
| 11 | Incentive Payments- Load Management                          | 40,000                                 | 100                                    |                                        |                                        |
| 12 | Indirect Costs                                               | 3,891                                  | 100                                    |                                        |                                        |
| 13 | Total Cost (sum of all above)                                | 82,879                                 | 100                                    |                                        |                                        |

**SCHEDULE 6 PART C: SUPPLEMENTAL INFORMATION**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                                        |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| 14 | Have there been any major changes to your Demand-Side Management programs (e.g., terminated programs, new information or financing programs or a shift to programs with dual load building objective and energy efficiency objectives), program tracking procedures, program evaluation or reporting methods that impact the demand-side management data reported on this schedule to data from the previous year? check Yes or No ) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 15 | Does your company currently have a program to increase the amount of "price responsive" customer load, (i.e., load that responds dynamically to higher or lower prices for wholesome electricity)? (check Yes or No)                                                                                                                                                                                                                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 16 | If the answer to line 15 is "Yes", please disclose the number of participating customer class.                                                                                                                                                                                                                                                                                                                                       |                              |                                        |
|    | Residential:                                                                                                                                                                                                                                                                                                                                                                                                                         | Commercial:                  | Industrial: Other:                     |

**SCHEDULE 7. DISTRIBUTED AND DISPERSED GENERATION**

**PART A. NUMBER AND CAPACITY**

Distributed Generators  
(Commercial and Industrial Grid  
Connected/Synchronized Generators)  
(a)

Dispersed Generators  
(Commercial and Industrial Grid Not  
Connected/Synchronized Generators)  
(b)

| Total                                                  | < 1MW | Total                                                  | < 1MW |
|--------------------------------------------------------|-------|--------------------------------------------------------|-------|
| 1. Number of generators                                |       | 1. Number of generators                                |       |
| 2. Total combined capacity (MW)                        |       | 2. Total combined capacity (MW)                        |       |
| 3. % of capacity that consists of<br>backup-only units |       | 3. % of capacity that consists of<br>backup-only units |       |
| 4. Nature of data reported                             |       | 4. Nature of data reported                             |       |

**PART B. TYPE OF GENERATORS (% of total capacity)**

|                                                 |                                                 |
|-------------------------------------------------|-------------------------------------------------|
| 1. Internal combustion/reciprocating<br>engines | 1. Internal combustion/reciprocating<br>engines |
| 2. Combustion turbine(s)                        | 2. Combustion turbine(s)                        |
| 3. Steam turbine(s)                             | 3. Steam turbine(s)                             |
| 4. Hydroelectric                                | 4. Hydroelectric                                |
| 5. Wind turbine(s)                              | 5. Wind turbine(s)                              |
| 6. Other                                        | 6. Other                                        |
| 7. Nature of data reported                      | 7. Nature of data reported                      |

**PART C. TYPE OF ENERGY SOURCES USED (% of total capacity)**

|                                                                                  |                                                                                  |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1. Distillate Fuel oil                                                           | 1. Distillate Fuel oil                                                           |
| 2. Natural gas                                                                   | 2. Natural gas                                                                   |
| 3. Wood/wood waste solids                                                        | 3. Wood/wood waste solids                                                        |
| 4. Water at convential hydroelectric<br>turbine                                  | 4. Water at convential hydroelectric<br>turbine                                  |
| 5. Wind                                                                          | 5. Wind                                                                          |
| 6. Other renewable or biomass fuels (see<br>energy source table in instructions) | 6. Other renewable or biomass fuels (see<br>energy source table in instructions) |
| 7. Other                                                                         | 7. Other                                                                         |
| 8. Nature of data reported                                                       | 8. Nature of data reported                                                       |

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SCHEDULE 8. DISTRIBUTION SYSTEM INFORMATION

If your company owns a distribution system, please identify the names of the counties(parish, etc.) by State in which the electric wire/equipment are located.

| LINE NO. | STATE<br>(US Postal Abbreviation)<br>(a) | COUNTY<br>(Parish, Etc.)<br>(b) | LINE NO. | STATE<br>(US Postal Abbreviation)<br>(a) | COUNTY<br>(Parish, Etc.)<br>(b) |
|----------|------------------------------------------|---------------------------------|----------|------------------------------------------|---------------------------------|
| 1        | MN - Anoka                               |                                 | 21       | MN - Lyon                                |                                 |
| 2        | MN - Benton                              |                                 | 22       | MN - McLeod                              |                                 |
| 3        | MN - Blue Earth                          |                                 | 23       | MN - Meeker                              |                                 |
| 4        | MN - Brown                               |                                 | 24       | MN - Mower                               |                                 |
| 5        | MN - Carver                              |                                 | 25       | MN - Murray                              |                                 |
| 6        | MN - Chippewa                            |                                 | 26       | MN - Nicollet                            |                                 |
| 7        | MN - Chisago                             |                                 | 27       | MN - Nobles                              |                                 |
| 8        | MN - Clay                                |                                 | 28       | MN - Norman                              |                                 |
| 9        | MN - Dakota                              |                                 | 29       | MN - Olmsted                             |                                 |
| 10       | MN - Dodge                               |                                 | 30       | MN - Pine                                |                                 |
| 11       | MN - Douglas                             |                                 | 31       | MN - Pipestone                           |                                 |
| 12       | MN - Faribault                           |                                 | 32       | MN - Polk                                |                                 |
| 13       | MN - Freeborn                            |                                 | 33       | MN - Pope                                |                                 |
| 14       | MN - Goodhue                             |                                 | 34       | MN - Ramsey                              |                                 |
| 15       | MN - Hennepin                            |                                 | 35       | MN - Redwood                             |                                 |
| 16       | MN - Houston                             |                                 | 36       | MN - Renville                            |                                 |
| 17       | MN - Kandiyohi                           |                                 | 37       | MN - Rice                                |                                 |
| 18       | MN - Lac Qui Parle                       |                                 | 38       | MN - Rock                                |                                 |
| 19       | MN - Le Sueur                            |                                 | 39       | MN - Scott                               |                                 |
| 20       | MN - Lincoln                             |                                 | 40       | MN - Sherburne                           |                                 |

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SCHEDULE 8. DISTRIBUTION SYSTEM INFORMATION

| LINE NO. | (US Postal State Abbreviation)<br>(a) | (COUNTY)<br>(b) | LINE NO. | (US Postal State Abbreviation)<br>(a) | (COUNTY)<br>(b) |
|----------|---------------------------------------|-----------------|----------|---------------------------------------|-----------------|
| 41       | MN - Sibley                           |                 | 62       | SD - McCook                           |                 |
| 42       | MN - Stearns                          |                 | 63       | SD - Miner                            |                 |
| 43       | MN - Steele                           |                 | 64       | SD - Minnehaha                        |                 |
| 44       | MN - Todd                             |                 | 65       | SD - Moody                            |                 |
| 45       | MN - Wabasha                          |                 | 66       | SD - Sanborn                          |                 |
| 46       | MN - Waseca                           |                 | 67       | SD - Turner                           |                 |
| 47       | MN - Washington                       |                 |          |                                       |                 |
| 48       | MN - Watonwan                         |                 |          |                                       |                 |
| 49       | MN - Wilkin                           |                 |          |                                       |                 |
| 50       | MN - Winona                           |                 |          |                                       |                 |
| 51       | MN - Wright                           |                 |          |                                       |                 |
| 52       | MN - Yellow Medicine                  |                 |          |                                       |                 |
| 53       | ND - Cass                             |                 |          |                                       |                 |
| 54       | ND - Grand Forks                      |                 |          |                                       |                 |
| 55       | ND - McHenry                          |                 |          |                                       |                 |
| 56       | ND - Traill                           |                 |          |                                       |                 |
| 57       | ND - Ward                             |                 |          |                                       |                 |
| 58       | SD - Hanson                           |                 |          |                                       |                 |
| 59       | SD - Hutchinson                       |                 |          |                                       |                 |
| 60       | SD - Lake                             |                 |          |                                       |                 |
| 61       | SD - Lincoln                          |                 |          |                                       |                 |

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SCHEDULE 9. FOOTNOTES

| SCHEDULE<br>(a) | PART<br>(b) | LINE NO.<br>(c) | COLUMN<br>(d) | NOTES<br>(e) |
|-----------------|-------------|-----------------|---------------|--------------|
|-----------------|-------------|-----------------|---------------|--------------|

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EIA-861 ERROR LOG

| Schedule | Part | State | Error No. | Error Description/Override Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Type | Override                            |
|----------|------|-------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------|
| 3        | -    | --    | 704       | Your reported losses on Schedule 2 Part B fall outside the expected range. Transmission and distribution losses usually fall between 6 and 7 percent of total Sales to Ultimate Customers. Please review Schedule 2 Part B line 15.<br><br>Reported losses are consistent with what was reported on the 2006 Annual FERC Form.                                                                                                                                                                                                                             | W    | <input checked="" type="checkbox"/> |
| 4        | A    | ND    | 422       | Your Utility's Industrial average consumption differs from last year by more than 30 percent. Please make sure your customer counts are correct and your sales are reported in megawatthours (divide kilowatthours by 1,000). If the data are correct as reported, please provide an explanatory note in the error log by clicking the "override" button to the right of this message.<br><br>Industrial consumption reported last year was 314,688 Mwh compared with 360,130 Mwh in 2006. That's only a 14 percent variance according to my calculations. | W    | <input checked="" type="checkbox"/> |
| 4        | A    | MN    | 1418      | Your utility's average price for transportation sales differs from your previous year average by more than 20%. Please check both the revenue and the sales. However, the data may be correct. If so, please verify this in the comment section of the error<br><br>2006 data is correct.                                                                                                                                                                                                                                                                  | W    | <input checked="" type="checkbox"/> |
| 6        | -    | --    | 503       | Total Actual Peak Load Reduction as a percent of Summer or Winter Peak (Schedule II) is too high.<br><br>Not sure what this comment is referring to. Summer and Winter peak demands reported on Schedule II are consistent with what was reported to the FERC.                                                                                                                                                                                                                                                                                             | W    | <input checked="" type="checkbox"/> |

## 7610.0600 I - Electric Use by Minnesota Residential Space Heating Users

Each utility shall provide actual data on the number of residential electric space heating customers and units it serves in Minnesota and the total megawatt-hours of electricity sold to these users in the past calendar year. If a utility cannot provide actual data, estimates will be accepted but must be identified as such.

A residential electric space heating customer or unit means any residential customer or unit which uses electricity as a source of space heating throughout the entire premises from permanently installed electric heating equipment.

Col. 1 -- Provide the number of Minnesota residential electrical space heating customers at years end. Apartments, public housing projects, and senior citizen housing should be considered residential.

Col. 2 -- Provide the number of Minnesota residential units which were served with electric space heating at years end. The total for Column 2 will be larger than Column 1 if the utility serves multiple housing structures or apartments heated with electricity which it counts as "1" customer, but which in reality contain multiple housing units. Apartments public housing projects, and senior citizen housing should be considered residential.

Col. 3 -- The total megawatt hours of electricity these residential space heating customers and units used.

|                   | COL. 1                                                      | COL. 2                                                  | COL. 3                                            |
|-------------------|-------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------|
|                   | No. of Residential<br>Electrical Space<br>Heating Customers | No. of Res. Units<br>Served with<br>Elec. Space Heating | Total MWH<br>Used by These<br>Customers and Units |
| PAST YEAR<br>2006 | 28,125                                                      | N/A                                                     | 350,900                                           |



# 7610.0600 J - Energy Delivered to Ultimate Consumers by County

## ENERGY DELIVERED TO ULTIMATE CONSUMERS BY COUNTY IN 2006

Include all energy delivered to ultimate consumers as well as public buildings and/or municipal functions even if no charge is levied for deliveries to public buildings and/or municipal functions. (Do not include station use.)

| County Code          | MWH Delivered to Ultimate Consumers | County Code                          | MWH Delivered to Ultimate Consumers |
|----------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| 01 Aitkin            |                                     | 44 Mahnommen                         |                                     |
| 02 Anoka             | 1,074,443                           | 45 Marshall                          |                                     |
| 03 Becker            |                                     | 46 Martin                            |                                     |
| 04 Beltrami          |                                     | 47 Meeker                            | 33,941                              |
| 05 Benton            | 720,514                             | 48 Mille Lacs                        |                                     |
| 06 Big Stone         |                                     | 49 Morrison                          |                                     |
| 07 Blue Earth        | 667,039                             | 50 Mower                             | 1,801                               |
| 08 Brown             | 2,288                               | 51 Murray                            | 38,750                              |
| 09 Carlton           |                                     | 52 Nicollet                          | 108,020                             |
| 10 Carver            | 452,956                             | 53 Nobles                            |                                     |
| 11 Cass              |                                     | 54 Norman                            | 1,518                               |
| 12 Chippewa          | 105,400                             | 55 Olmstead                          | 31,329                              |
| 13 Chisago           | 171,997                             | 56 Otter Tail                        |                                     |
| 14 Clay              | 50,831                              | 57 Pennington                        |                                     |
| 15 Clearwater        |                                     | 58 Pine                              |                                     |
| 16 Cook              |                                     | 59 Pipestone                         | 75,021                              |
| 17 Cottonwood        |                                     | 60 Polk                              |                                     |
| 18 Crow Wing         |                                     | 61 Pope                              | 62,227                              |
| 19 Dakota            | 2,978,000                           | 62 Ramsey                            | 5,794,686                           |
| 20 Dodge             | 92,435                              | 63 Red Lake                          |                                     |
| 21 Douglas           | 11,116                              | 64 Redwood                           | 39,414                              |
| 22 Faribault         | 6,082                               | 65 Renville                          | 75,799                              |
| 23 Fillmore          |                                     | 66 Rice                              | 536,493                             |
| 24 Freeborn          | 9,742                               | 67 Rock                              | 1,089                               |
| 25 Goodhue           | 415,460                             | 68 Roseau                            |                                     |
| 26 Grant             |                                     | 69 St. Louis                         |                                     |
| 27 Hennepin          | 12,923,947                          | 70 Scott                             | 452,853                             |
| 28 Houston           | 35,455                              | 71 Sherburne                         | 204,909                             |
| 29 Hubbard           |                                     | 72 Sibley                            | 74,167                              |
| 30 Isanti            |                                     | 73 Stearns                           | 1,198,290                           |
| 31 Itasca            |                                     | 74 Steele                            | 16,241                              |
| 32 Jackson           |                                     | 75 Stevens                           |                                     |
| 33 Kanabec           |                                     | 76 Swift                             |                                     |
| 34 Kandiyohi         | 78,901                              | 77 Todd                              | 1,862                               |
| 35 Kittson           |                                     | 78 Traverse                          |                                     |
| 36 Koochiching       |                                     | 79 Wabasha                           | 67,105                              |
| 37 Lac Que Parle     | 593                                 | 80 Wadena                            |                                     |
| 38 Lake              |                                     | 81 Waseca                            | 151,393                             |
| 39 Lake of the Woods |                                     | 82 Washington                        | 2,144,578                           |
| 40 Le Sueur          | 58,069                              | 83 Watonwan                          | 6,824                               |
| 41 Lincoln           | 866                                 | 84 Wilkin                            | 936                                 |
| 42 Lyon              | 37,177                              | 85 Winona                            | 460,148                             |
| 43 McLeod            | 64,950                              | 86 Wright                            | 366,246                             |
|                      |                                     | 87 Yellow Medicine                   | 22,633                              |
|                      |                                     | <b>GRAND TOTAL (of both columns)</b> | <b>31,926,534</b>                   |

Note: Sales by county excludes sales to municipal customers.

## 7610.0600 J - Electricity Delivered to Ultimate Consumers in Minnesota Service Area in 2006

### INSTRUCTIONS

The energy use classifications employed in this schedule are defined or clarified below for those classifications, which may not be self-explanatory.

**FARM, INCLUDING IRRIGATION AND DRAINAGE PUMPING** -- In order to facilitate reporting this classification of energy, farm may be defined in accordance with respondent's own interpretation. For guidance, the Bureau of the Census' definition of a farm may for the purposes herein be redefined briefly as a tract of land which produces or has the potential for the production of agricultural goods totaling \$1,000 or more, annually; the land operated by each tenant, renter, cropper, or manager is considered a separate farm. Respondent should report farms served rather than farm dwellings served in the column for number of customers. Estimates should be furnished for this classification if exact information is not available.

**NONFARM-RESIDENTIAL**--Energy supplied for nonfarm-residential purposes. Include seasonal homes and cottages. Where electric energy was supplied through a single meter for both residential and commercial purposes include it in one or the other, according to its principal use. Exclude energy supplied to farm customers.

**COMMERCIAL**--Energy supplied to small commercial and industrial power accounts.

**INDUSTRIAL**--Energy supplied to large commercial and industrial power accounts, including mining accounts.

**STREET AND HIGHWAY LIGHTING**--Energy supplied for street and highway lighting.

**ALL OTHER**--Energy delivered for ultimate consumption that does not fall within any of the specific classifications listed in this schedule. Included in this group should be deliveries for municipal water pumping; military camps and bases; and public buildings such as schools, police stations, post offices, and government offices. Do not include sales for resale.

| Classification of Energy Delivered to Ultimate Consumers <sup>1</sup><br>(include energy used during the year for irrigation and<br>drainage pumping) – CALENDAR MONTH BASIS | Number<br>Customers at<br>End of Year <sup>2</sup> | Megawatt-hours<br>(round to nearest<br>MWH) <sup>3</sup> | Revenue <sup>4</sup> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------|----------------------|
| Farm.....                                                                                                                                                                    | NA                                                 | NA                                                       | NA                   |
| Nonfarm-residential...(Total Residential).....                                                                                                                               | 1,065,337                                          | 8,876,544                                                | 812,791,591          |
| Small Commercial and Industrial.....                                                                                                                                         | 122,406                                            | 13,677,160                                               | 951,728,566          |
| Large Commercial and Industrial.....                                                                                                                                         | 461                                                | 9,129,744                                                | 529,026,514          |
| Street and highway lighting.....                                                                                                                                             | 3,276                                              | 143,663                                                  | 20,618,453           |
| All other*.....                                                                                                                                                              | 2,072                                              | 1,055,403                                                | 50,760,985           |
| Total Energy Delivered to Ultimate Consumers.....                                                                                                                            | 1,193,552                                          | 32,882,514                                               | 2,364,926,109        |

<sup>1</sup>Exclude station use, distribution losses, and unaccounted for energy losses from this table altogether.

<sup>2</sup>Report number of farms, residences, commercial establishments, etc., and not the number of meters where different.

<sup>3</sup>This column total should equal the grand total in the previous section on total deliveries by county.

<sup>4</sup>This column total will be used for the Renewable Energy Assessment and should not include revenues from sales for resale.

Note: Municipal Sales Component..... 14 955,980 43,432,447

\*Includes Other Sales to Public Authority, Inter-departmental sales, and municipals.

7610.0600 J - Deliveries to Ultimate Consumers by Month for the Last Calendar Year

| Past Year<br>Entire<br>System |                  | A<br>Residential<br>Without<br>Space Heat | B<br>Residential<br>With<br>Space Heat | C<br>Farm | D<br>Small<br>Commercial<br>& Industrial | E<br>Mining * | F<br>Large<br>Commercial<br>& Industrial | G<br>Street &<br>Highway<br>Lighting | H<br>Other<br>(Include<br>Municipals) | I<br>Total<br>(Columns A<br>through H) |
|-------------------------------|------------------|-------------------------------------------|----------------------------------------|-----------|------------------------------------------|---------------|------------------------------------------|--------------------------------------|---------------------------------------|----------------------------------------|
| January                       | No. of Customers | 1,317,775                                 | 74,507                                 | n/a       | 176,520                                  | n/a           | 609                                      | 4,301                                | 2,734                                 | 1,576,446                              |
|                               | MWH              | 976,180                                   | 105,259                                | n/a       | 1,509,660                                | n/a           | 887,189                                  | 20,316                               | 129,825                               | 3,628,430                              |
| February                      | No. of Customers | 1,319,963                                 | 74,616                                 | n/a       | 176,747                                  | n/a           | 612                                      | 4,308                                | 2,730                                 | 1,578,976                              |
|                               | MWH              | 847,414                                   | 110,389                                | n/a       | 1,335,386                                | n/a           | 905,634                                  | 17,745                               | 102,858                               | 3,319,426                              |
| March                         | No. of Customers | 1,321,918                                 | 74,750                                 | n/a       | 176,951                                  | n/a           | 594                                      | 4,351                                | 2,736                                 | 1,581,300                              |
|                               | MWH              | 854,018                                   | 92,894                                 | n/a       | 1,484,529                                | n/a           | 952,222                                  | 16,897                               | 104,345                               | 3,504,905                              |
| April                         | No. of Customers | 1,322,897                                 | 74,786                                 | n/a       | 177,032                                  | n/a           | 604                                      | 4,360                                | 2,741                                 | 1,582,420                              |
|                               | MWH              | 741,400                                   | 58,010                                 | n/a       | 1,379,384                                | n/a           | 909,241                                  | 14,238                               | 119,075                               | 3,221,347                              |
| May                           | No. of Customers | 1,324,614                                 | 74,899                                 | n/a       | 177,272                                  | n/a           | 596                                      | 4,376                                | 2,742                                 | 1,584,499                              |
|                               | MWH              | 809,102                                   | 52,359                                 | n/a       | 1,429,873                                | n/a           | 941,780                                  | 13,097                               | 91,861                                | 3,338,071                              |
| June                          | No. of Customers | 1,323,574                                 | 74,679                                 | n/a       | 177,618                                  | n/a           | 602                                      | 4,377                                | 2,768                                 | 1,583,618                              |
|                               | MWH              | 952,298                                   | 49,649                                 | n/a       | 1,554,687                                | n/a           | 928,562                                  | 11,948                               | 239,283                               | 3,736,427                              |
| July                          | No. of Customers | 1,323,778                                 | 74,686                                 | n/a       | 178,057                                  | n/a           | 607                                      | 4,400                                | 2,762                                 | 1,584,290                              |
|                               | MWH              | 1,439,799                                 | 77,499                                 | n/a       | 1,916,792                                | n/a           | 994,950                                  | 10,714                               | 157,668                               | 4,597,421                              |
| August                        | No. of Customers | 1,327,856                                 | 75,064                                 | n/a       | 178,630                                  | n/a           | 602                                      | 4,394                                | 2,760                                 | 1,589,306                              |
|                               | MWH              | 1,149,206                                 | 57,272                                 | n/a       | 1,633,976                                | n/a           | 1,007,358                                | 12,480                               | 183,243                               | 4,043,535                              |
| September                     | No. of Customers | 1,330,523                                 | 75,278                                 | n/a       | 178,883                                  | n/a           | 613                                      | 4,421                                | 2,758                                 | 1,592,476                              |
|                               | MWH              | 814,993                                   | 47,474                                 | n/a       | 1,563,288                                | n/a           | 984,176                                  | 15,191                               | 146,499                               | 3,571,622                              |
| October                       | No. of Customers | 1,334,652                                 | 75,485                                 | n/a       | 179,314                                  | n/a           | 606                                      | 4,427                                | 2,756                                 | 1,597,240                              |
|                               | MWH              | 855,295                                   | 67,077                                 | n/a       | 1,578,705                                | n/a           | 1,001,240                                | 19,195                               | 110,626                               | 3,632,138                              |
| November                      | No. of Customers | 1,336,443                                 | 75,623                                 | n/a       | 179,755                                  | n/a           | 603                                      | 4,431                                | 2,745                                 | 1,599,600                              |
|                               | MWH              | 830,671                                   | 83,988                                 | n/a       | 1,374,681                                | n/a           | 940,443                                  | 19,997                               | 133,670                               | 3,383,448                              |
| December                      | No. of Customers | 1,337,998                                 | 75,731                                 | n/a       | 180,050                                  | n/a           | 599                                      | 4,430                                | 2,733                                 | 1,601,541                              |
|                               | MWH              | 966,166                                   | 108,769                                | n/a       | 1,515,220                                | n/a           | 902,076                                  | 20,990                               | 132,679                               | 3,645,899                              |

**7610.0310 – Historical Data and Forecast**

**7610.0320 – Forecast Documentation**

**7610.0310, item A. SYSTEM FORECAST OF ANNUAL ELECTRIC CONSUMPTION BY ULTIMATE CONSUMERS**

In the space below, provide actual data for your entire system for the past year, your estimate for the present year and all future forecast years. Please remember that the number of customers should reflect the number of customers at years end not the number of meters.

|                     |      | FARM          | TOTAL<br>RESIDENTIAL | SMALL C&I<br>(<br>1000 Kw) | MINING*    |    |
|---------------------|------|---------------|----------------------|----------------------------|------------|----|
| PAST<br>YEAR        | 2006 | NO. OF CUST'S | NA                   | 1,413,729                  | 180,050    | NA |
|                     |      | MWH's         | NA                   | 12,147,178                 | 18,276,180 | NA |
| PRESENT<br>YEAR     | 2007 | NO. OF CUST'S | NA                   | 1,426,127                  | 181,905    | NA |
|                     |      | MWH's         | NA                   | 12,261,826                 | 18,328,135 | NA |
| 1st<br>FORECAST YR  | 2008 | NO. OF CUST'S | NA                   | 1,441,538                  | 184,408    | NA |
|                     |      | MWH's         | NA                   | 12,463,395                 | 18,586,600 | NA |
| 2nd<br>FORECAST YR  | 2009 | NO. OF CUST'S | NA                   | 1,458,803                  | 187,098    | NA |
|                     |      | MWH's         | NA                   | 12,663,458                 | 18,856,742 | NA |
| 3rd<br>FORECAST YR  | 2010 | NO. OF CUST'S | NA                   | 1,476,341                  | 189,789    | NA |
|                     |      | MWH's         | NA                   | 12,895,458                 | 19,126,882 | NA |
| 4th<br>FORECAST YR  | 2011 | NO. OF CUST'S | NA                   | 1,493,196                  | 192,373    | NA |
|                     |      | MWH's         | NA                   | 13,115,868                 | 19,389,503 | NA |
| 5th<br>FORECAST YR  | 2012 | NO. OF CUST'S | NA                   | 1,509,182                  | 194,828    | NA |
|                     |      | MWH's         | NA                   | 13,336,522                 | 19,632,443 | NA |
| 6th<br>FORECAST YR  | 2013 | NO. OF CUST'S | NA                   | 1,524,384                  | 197,185    | NA |
|                     |      | MWH's         | NA                   | 13,515,091                 | 19,878,286 | NA |
| 7th<br>FORECAST YR  | 2014 | NO. OF CUST'S | NA                   | 1,539,160                  | 199,484    | NA |
|                     |      | MWH's         | NA                   | 13,697,721                 | 20,108,340 | NA |
| 8th<br>FORECAST YR  | 2015 | NO. OF CUST'S | NA                   | 1,554,213                  | 201,828    | NA |
|                     |      | MWH's         | NA                   | 13,882,174                 | 20,343,579 | NA |
| 9th<br>FORECAST YR  | 2016 | NO. OF CUST'S | NA                   | 1,569,294                  | 204,179    | NA |
|                     |      | MWH's         | NA                   | 14,089,396                 | 20,580,412 | NA |
| 10th<br>FORECAST YR | 2017 | NO. OF CUST'S | NA                   | 1,584,202                  | 206,510    | NA |
|                     |      | MWH's         | NA                   | 14,279,047                 | 20,830,911 | NA |
| 11th<br>FORECAST YR | 2018 | NO. OF CUST'S | NA                   | 1,599,387                  | 208,881    | NA |
|                     |      | MWH's         | NA                   | 14,501,069                 | 21,081,130 | NA |
| 12th<br>FORECAST YR | 2019 | NO. OF CUST'S | NA                   | 1,614,099                  | 211,187    | NA |
|                     |      | MWH's         | NA                   | 14,716,795                 | 21,332,669 | NA |
| 13th<br>FORECAST YR | 2020 | NO. OF CUST'S | NA                   | 1,628,389                  | 213,429    | NA |
|                     |      | MWH's         | NA                   | 14,940,849                 | 21,576,099 | NA |
| 14th<br>FORECAST YR | 2021 | NO. OF CUST'S | NA                   | 1,642,696                  | 215,674    | NA |
|                     |      | MWH's         | NA                   | 15,125,376                 | 21,826,169 | NA |

**7610.0310, item C. PEAK DEMAND BY ULTIMATE CONSUMERS AT TIME OF ANNUAL SYSTEM PEAK (IN MWH'S)**

|                  |    |       |       |    |
|------------------|----|-------|-------|----|
| LAST YR PEAK DAY | NA | 3,274 | 3,394 | NA |
|------------------|----|-------|-------|----|

\* Mining needs to be reported as a separate category only if annual sales are greater than 1,000 GWH. Otherwise, include mining in the INDUSTRIAL category.

**7610.0310, item A. SYSTEM FORECAST OF ANNUAL ELECTRIC CONSUMPTION BY ULTIMATE CONSUMERS**  
(Continued)

|                  |                     | LARGE C&I<br>(> or = 1000 Kw) | ST. AND HWY.<br>LIGHTING | OTHER<br>(incl. Municipals) | SYSTEM TOTALS<br>(Continued Equal Vol. 1 + Vol. 2 Vol. 3<br>p.10) |
|------------------|---------------------|-------------------------------|--------------------------|-----------------------------|-------------------------------------------------------------------|
| PAST YEAR        | 2006 NO. OF CUST'S. | 599                           | 4,430                    | 2,733                       | 1,601,541                                                         |
|                  | MWH's               | 11,354,870                    | 192,808                  | 1,651,632                   | 43,622,668                                                        |
| PRESENT YEAR     | 2007 NO. OF CUST'S. | 599                           | 4,489                    | 2,724                       | 1,615,844                                                         |
|                  | MWH's               | 11,646,577                    | 195,516                  | 1,666,754                   | 44,098,807                                                        |
| 1st FORECAST YR  | 2008 NO. OF CUST'S. | 599                           | 4,588                    | 2,702                       | 1,633,834                                                         |
|                  | MWH's               | 11,854,805                    | 193,561                  | 1,518,751                   | 44,617,112                                                        |
| 2nd FORECAST YR  | 2009 NO. OF CUST'S. | 599                           | 4,698                    | 2,680                       | 1,653,877                                                         |
|                  | MWH's               | 12,083,731                    | 192,983                  | 1,309,341                   | 45,106,255                                                        |
| 3rd FORECAST YR  | 2010 NO. OF CUST'S. | 599                           | 4,810                    | 2,659                       | 1,674,198                                                         |
|                  | MWH's               | 12,222,284                    | 192,983                  | 1,323,370                   | 45,760,976                                                        |
| 4th FORECAST YR  | 2011 NO. OF CUST'S. | 599                           | 4,917                    | 2,638                       | 1,693,724                                                         |
|                  | MWH's               | 12,310,875                    | 192,983                  | 1,335,889                   | 46,345,119                                                        |
| 5th FORECAST YR  | 2012 NO. OF CUST'S. | 599                           | 5,019                    | 2,617                       | 1,712,245                                                         |
|                  | MWH's               | 12,375,948                    | 193,561                  | 1,347,950                   | 46,886,425                                                        |
| 6th FORECAST YR  | 2013 NO. OF CUST'S. | 599                           | 5,116                    | 2,596                       | 1,729,880                                                         |
|                  | MWH's               | 12,456,788                    | 192,983                  | 1,356,717                   | 47,399,865                                                        |
| 7th FORECAST YR  | 2014 NO. OF CUST'S. | 599                           | 5,209                    | 2,576                       | 1,747,029                                                         |
|                  | MWH's               | 12,541,320                    | 192,983                  | 1,365,930                   | 47,906,294                                                        |
| 8th FORECAST YR  | 2015 NO. OF CUST'S. | 599                           | 5,305                    | 2,556                       | 1,764,501                                                         |
|                  | MWH's               | 12,631,524                    | 192,983                  | 1,375,367                   | 48,425,628                                                        |
| 9th FORECAST YR  | 2016 NO. OF CUST'S. | 599                           | 5,401                    | 2,536                       | 1,782,009                                                         |
|                  | MWH's               | 12,727,295                    | 193,561                  | 1,385,263                   | 48,975,927                                                        |
| 10th FORECAST YR | 2017 NO. OF CUST'S. | 599                           | 5,496                    | 2,516                       | 1,799,324                                                         |
|                  | MWH's               | 12,845,890                    | 192,983                  | 1,394,943                   | 49,543,774                                                        |
| 11th FORECAST YR | 2018 NO. OF CUST'S. | 599                           | 5,593                    | 2,496                       | 1,816,957                                                         |
|                  | MWH's               | 12,962,886                    | 192,983                  | 1,405,094                   | 50,143,162                                                        |
| 12th FORECAST YR | 2019 NO. OF CUST'S. | 599                           | 5,687                    | 2,477                       | 1,834,049                                                         |
|                  | MWH's               | 13,082,503                    | 192,983                  | 1,415,495                   | 50,740,444                                                        |
| 13th FORECAST YR | 2020 NO. OF CUST'S. | 599                           | 5,778                    | 2,458                       | 1,850,653                                                         |
|                  | MWH's               | 13,198,399                    | 193,561                  | 1,426,380                   | 51,335,288                                                        |
| 14th FORECAST YR | 2021 NO. OF CUST'S. | 599                           | 5,869                    | 2,439                       | 1,867,277                                                         |
|                  | MWH's               | 13,315,715                    | 192,983                  | 1,437,076                   | 51,897,319                                                        |

**7610.0310, item C. PEAK DEMAND BY ULTIMATE CONSUMERS AT TIME OF ANNUAL SYSTEM PEAK (IN MW'S)**

|                  |       |   |     |       |
|------------------|-------|---|-----|-------|
| LAST YR PEAK DAY | 2,059 | 0 | 299 | 9,027 |
|------------------|-------|---|-----|-------|

**7610.0310, item D. PEAK DEMAND BY MONTH FOR THE LAST CALENDAR YEAR**

| PEAK (In MW's) |       | PEAK (In MW's) |       | PEAK (In MW's) |       |
|----------------|-------|----------------|-------|----------------|-------|
| JANUARY        | 6,332 | MAY            | 7,273 | SEPTEMBER      | 7,132 |
| FEBRUARY       | 6,451 | JUNE           | 8,203 | OCTOBER        | 6,439 |
| MARCH          | 6,058 | JULY           | 9,027 | NOVEMBER       | 6,599 |
| APRIL          | 5,753 | AUGUST         | 8,007 | DECEMBER       | 6,887 |

**7610.0310, item A. MINNESOTA ONLY FORECAST OF ANNUAL ELECTRIC CONSUMPTION BY ULTIMATE CONSUMERS**

In the space below, provide actual data for your **Minnesota service area only**, for the past year, your best estimate for the present year and all future forecast years. The definition shall be the same as those used in 7610.0310, item A on the first page of this report. Please remember that the number of customers should reflect the actual number of customers the utility has in that category at years end not the number of meters.

|                     |      |                | TOTAL<br>RESIDENTIAL | SMALL<br>COMM & IND | MINING* |
|---------------------|------|----------------|----------------------|---------------------|---------|
| *PAST<br>YEAR       | 2006 | NO. OF CUST'S. | 1,065,337            | 122,406             | NA      |
|                     |      | MWH's          | 8,876,545            | 13,677,161          | NA      |
| PRESENT<br>YEAR     | 2007 | NO. OF CUST'S. | 1,061,744            | 122,493             | NA      |
|                     |      | MWH's          | 8,896,899            | 13,707,463          | NA      |
| 1st<br>FORECAST YR  | 2008 | NO. OF CUST'S. | 1,073,808            | 124,760             | NA      |
|                     |      | MWH's          | 9,053,166            | 13,898,992          | NA      |
| 2nd<br>FORECAST YR  | 2009 | NO. OF CUST'S. | 1,086,605            | 127,232             | NA      |
|                     |      | MWH's          | 9,206,442            | 14,100,372          | NA      |
| 3rd<br>FORECAST YR  | 2010 | NO. OF CUST'S. | 1,100,035            | 129,864             | NA      |
|                     |      | MWH's          | 9,389,609            | 14,309,412          | NA      |
| 4th<br>FORECAST YR  | 2011 | NO. OF CUST'S. | 1,113,180            | 132,457             | NA      |
|                     |      | MWH's          | 9,564,417            | 14,513,967          | NA      |
| 5th<br>FORECAST YR  | 2012 | NO. OF CUST'S. | 1,125,192            | 134,834             | NA      |
|                     |      | MWH's          | 9,743,029            | 14,703,117          | NA      |
| 6th<br>FORECAST YR  | 2013 | NO. OF CUST'S. | 1,136,465            | 137,069             | NA      |
|                     |      | MWH's          | 9,880,827            | 14,890,079          | NA      |
| 7th<br>FORECAST YR  | 2014 | NO. OF CUST'S. | 1,147,353            | 139,231             | NA      |
|                     |      | MWH's          | 10,022,256           | 15,062,669          | NA      |
| 8th<br>FORECAST YR  | 2015 | NO. OF CUST'S. | 1,158,167            | 141,380             | NA      |
|                     |      | MWH's          | 10,165,804           | 15,238,159          | NA      |
| 9th<br>FORECAST YR  | 2016 | NO. OF CUST'S. | 1,169,662            | 143,665             | NA      |
|                     |      | MWH's          | 10,331,104           | 15,413,420          | NA      |
| 10th<br>FORECAST YR | 2017 | NO. OF CUST'S. | 1,181,186            | 145,956             | NA      |
|                     |      | MWH's          | 10,475,870           | 15,593,231          | NA      |
| 11th<br>FORECAST YR | 2018 | NO. OF CUST'S. | 1,192,401            | 148,187             | NA      |
|                     |      | MWH's          | 10,649,801           | 15,771,522          | NA      |
| 12th<br>FORECAST YR | 2019 | NO. OF CUST'S. | 1,203,649            | 150,424             | NA      |
|                     |      | MWH's          | 10,818,607           | 15,949,103          | NA      |
| 13th<br>FORECAST YR | 2020 | NO. OF CUST'S. | 1,214,408            | 152,563             | NA      |
|                     |      | MWH's          | 10,995,281           | 16,116,244          | NA      |
| 14th<br>FORECAST YR | 2021 | NO. OF CUST'S. | 1,224,985            | 154,667             | NA      |
|                     |      | MWH's          | 11,134,815           | 16,287,203          | NA      |

\* Mining needs to be reported as a separate category only if annual sales are greater than 1,000 GWH. Otherwise, include mining in the INDUSTRIAL category.

**7610.0310, item A. MINNESOTA ONLY FORECAST OF ANNUAL ELECTRIC CONSUMPTION BY ULTIMATE CONSUMERS (Continued)**

|                     |      |                | LARGE<br>COMM & IND | ST. AND HWY<br>LIGHTING | OTHER<br>(incl. Municipals) | TOTAL-MN ONLY<br>(should equal column<br>1 on page 10) |
|---------------------|------|----------------|---------------------|-------------------------|-----------------------------|--------------------------------------------------------|
| PAST<br>YEAR        | 2006 | NO. OF CUST'S. | 461                 | 3,276                   | 2,072                       | 1,193,552                                              |
|                     |      | MWH's          | 9,129,744           | 143,664                 | 1,055,402                   | 32,882,516                                             |
| PRESENT<br>YEAR     | 2007 | NO. OF CUST'S. | 485                 | 3,236                   | 2,090                       | 1,190,049                                              |
|                     |      | MWH's          | 9,398,492           | 144,873                 | 1,065,236                   | 33,212,963                                             |
| 1st<br>FORECAST YR  | 2008 | NO. OF CUST'S. | 485                 | 3,329                   | 2,069                       | 1,204,451                                              |
|                     |      | MWH's          | 9,578,977           | 143,329                 | 910,653                     | 33,585,117                                             |
| 2nd<br>FORECAST YR  | 2009 | NO. OF CUST'S. | 485                 | 3,413                   | 2,048                       | 1,219,783                                              |
|                     |      | MWH's          | 9,782,915           | 142,900                 | 690,856                     | 33,923,484                                             |
| 3rd<br>FORECAST YR  | 2010 | NO. OF CUST'S. | 485                 | 3,487                   | 2,027                       | 1,235,898                                              |
|                     |      | MWH's          | 9,901,647           | 142,900                 | 701,308                     | 34,444,876                                             |
| 4th<br>FORECAST YR  | 2011 | NO. OF CUST'S. | 485                 | 3,557                   | 2,007                       | 1,251,686                                              |
|                     |      | MWH's          | 9,972,369           | 142,900                 | 711,984                     | 34,905,638                                             |
| 5th<br>FORECAST YR  | 2012 | NO. OF CUST'S. | 485                 | 3,628                   | 1,986                       | 1,266,126                                              |
|                     |      | MWH's          | 10,022,561          | 143,329                 | 723,050                     | 35,335,085                                             |
| 6th<br>FORECAST YR  | 2013 | NO. OF CUST'S. | 485                 | 3,699                   | 1,966                       | 1,279,685                                              |
|                     |      | MWH's          | 10,085,708          | 142,900                 | 731,881                     | 35,731,396                                             |
| 7th<br>FORECAST YR  | 2014 | NO. OF CUST'S. | 485                 | 3,767                   | 1,946                       | 1,292,783                                              |
|                     |      | MWH's          | 10,154,034          | 142,900                 | 741,094                     | 36,122,953                                             |
| 8th<br>FORECAST YR  | 2015 | NO. OF CUST'S. | 485                 | 3,830                   | 1,926                       | 1,305,789                                              |
|                     |      | MWH's          | 10,226,850          | 142,900                 | 750,532                     | 36,524,246                                             |
| 9th<br>FORECAST YR  | 2016 | NO. OF CUST'S. | 485                 | 3,886                   | 1,907                       | 1,319,604                                              |
|                     |      | MWH's          | 10,305,734          | 143,329                 | 760,363                     | 36,953,949                                             |
| 10th<br>FORECAST YR | 2017 | NO. OF CUST'S. | 485                 | 3,937                   | 1,887                       | 1,333,451                                              |
|                     |      | MWH's          | 10,402,357          | 142,900                 | 770,107                     | 37,384,466                                             |
| 11th<br>FORECAST YR | 2018 | NO. OF CUST'S. | 485                 | 3,985                   | 1,868                       | 1,346,925                                              |
|                     |      | MWH's          | 10,497,601          | 142,900                 | 780,258                     | 37,842,083                                             |
| 12th<br>FORECAST YR | 2019 | NO. OF CUST'S. | 485                 | 4,029                   | 1,849                       | 1,360,436                                              |
|                     |      | MWH's          | 10,594,568          | 142,900                 | 790,659                     | 38,295,837                                             |
| 13th<br>FORECAST YR | 2020 | NO. OF CUST'S. | 485                 | 4,072                   | 1,830                       | 1,373,359                                              |
|                     |      | MWH's          | 10,688,641          | 143,329                 | 801,479                     | 38,744,975                                             |
| 14th<br>FORECAST YR | 2021 | NO. OF CUST'S. | 485                 | 4,112                   | 1,812                       | 1,386,061                                              |
|                     |      | MWH's          | 10,781,775          | 142,900                 | 812,240                     | 39,158,934                                             |



PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED

7610.0310, item B. FORECAST OF ANNUAL SYSTEM CONSUMPTION AND GENERATION DATA

|                  |      | Column 1                                                                               | Column 2                                                                                       | Column 3                                                         | Column 4                                                |
|------------------|------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------|
|                  |      | CONSUMPTION<br>BY<br>ULTIMATE<br>CONSUMERS<br>IN<br>MINNESOTA<br>MWH<br>7610.0310 B(1) | CONSUMPTION<br>BY<br>ULTIMATE<br>CONSUMERS<br>OUTSIDE OF<br>MINNESOTA<br>MWH<br>7610.0310 B(2) | RECEIVED<br>FROM OTHER<br>UTILITIES<br><br>MWH<br>7610.0310 B(3) | DELIVERED<br>FOR<br>RESALE<br><br>MWH<br>7610.0310 B(4) |
|                  |      | TRADE SECRET DATA EXCISED                                                              |                                                                                                |                                                                  |                                                         |
| PAST YEAR        | 2006 | 32,882,516                                                                             | 10,740,152                                                                                     | 14,437,623                                                       | 4,717,537                                               |
| PRESENT YEAR     | 2007 | 33,212,963                                                                             | 10,885,844                                                                                     |                                                                  |                                                         |
| 1st FORECAST YR  | 2008 | 33,585,117                                                                             | 11,031,995                                                                                     |                                                                  |                                                         |
| 2nd FORECAST YR  | 2009 | 33,923,484                                                                             | 11,182,771                                                                                     |                                                                  |                                                         |
| 3rd FORECAST YR  | 2010 | 34,444,876                                                                             | 11,316,100                                                                                     |                                                                  |                                                         |
| 4th FORECAST YR  | 2011 | 34,905,638                                                                             | 11,439,481                                                                                     |                                                                  |                                                         |
| 5th FORECAST YR  | 2012 | 35,335,085                                                                             | 11,551,340                                                                                     |                                                                  |                                                         |
| 6th FORECAST YR  | 2013 | 35,731,396                                                                             | 11,668,470                                                                                     |                                                                  |                                                         |
| 7th FORECAST YR  | 2014 | 36,122,953                                                                             | 11,783,340                                                                                     |                                                                  |                                                         |
| 8th FORECAST YR  | 2015 | 36,524,246                                                                             | 11,901,382                                                                                     |                                                                  |                                                         |
| 9th FORECAST YR  | 2016 | 36,953,949                                                                             | 12,021,978                                                                                     |                                                                  |                                                         |
| 10th FORECAST YR | 2017 | 37,384,466                                                                             | 12,159,307                                                                                     |                                                                  |                                                         |
| 11th FORECAST YR | 2018 | 37,842,083                                                                             | 12,301,079                                                                                     |                                                                  |                                                         |
| 12th FORECAST YR | 2019 | 38,295,837                                                                             | 12,444,608                                                                                     |                                                                  |                                                         |
| 13th FORECAST YR | 2020 | 38,744,975                                                                             | 12,590,313                                                                                     |                                                                  |                                                         |
| 14th FORECAST YR | 2021 | 39,158,934                                                                             | 12,738,386                                                                                     |                                                                  |                                                         |

**NOTE:** Column 1 plus Column 2 should equal Column 5 minus Column 6  
minus Column 4 plus Column 3.

**7610.0310, item B. FORECAST OF ANNUAL SYSTEM CONSUMPTION AND GENERATION DATA**  
**(Continued)**

|                  |      | <b>Column 5</b>                                | <b>Column 6</b>                                                             | <b>Column 7</b>                         | <b>Column 8</b>                         |
|------------------|------|------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|
|                  |      | <b>TOTAL<br/>ANNUAL<br/>NET<br/>GENERATION</b> | <b>TRANSMISSION<br/>LINE<br/>SUBSTATION AND<br/>DISTRIBUTION<br/>LOSSES</b> | <b>TOTAL<br/>WINTER<br/>CONSUMPTION</b> | <b>TOTAL<br/>SUMMER<br/>CONSUMPTION</b> |
|                  |      | <b>MWH<br/>7610.0310 B(5)</b>                  | <b>MWH<br/>7610.0310 B(6)</b>                                               | <b>MWH<br/>7610.0310 B(7)</b>           | <b>MWH<br/>7610.0310 B(8)</b>           |
| PAST YEAR        | 2006 | 36,398,272                                     | 2,495,690                                                                   | 20,792,579                              | 22,919,214                              |
| PRESENT YEAR     | 2007 | 36,769,316                                     | 3,643,089                                                                   | 21,160,813                              | 22,711,238                              |
| 1st FORECAST YR  | 2008 | 38,082,885                                     | 3,682,088                                                                   | 21,643,638                              | 22,890,535                              |
| 2nd FORECAST YR  | 2009 | 38,630,960                                     | 3,723,367                                                                   | 21,746,995                              | 23,252,855                              |
| 3rd FORECAST YR  | 2010 | 39,334,281                                     | 3,776,547                                                                   | 22,087,463                              | 23,569,274                              |
| 4th FORECAST YR  | 2011 | 40,025,324                                     | 3,824,231                                                                   | 22,386,645                              | 23,863,016                              |
| 5th FORECAST YR  | 2012 | 40,860,544                                     | 3,866,537                                                                   | 22,752,503                              | 24,044,000                              |
| 6th FORECAST YR  | 2013 | 40,061,174                                     | 3,910,306                                                                   | 22,915,184                              | 24,400,444                              |
| 7th FORECAST YR  | 2014 | 41,294,091                                     | 3,951,632                                                                   | 23,162,769                              | 24,659,724                              |
| 8th FORECAST YR  | 2015 | 41,545,821                                     | 3,994,012                                                                   | 23,411,839                              | 24,927,074                              |
| 9th FORECAST YR  | 2016 | 42,519,368                                     | 4,037,002                                                                   | 23,771,954                              | 25,113,111                              |
| 10th FORECAST YR | 2017 | 42,669,644                                     | 4,085,292                                                                   | 23,945,490                              | 25,503,736                              |
| 11th FORECAST YR | 2018 | 43,460,768                                     | 4,134,251                                                                   | 24,233,576                              | 25,811,392                              |
| 12th FORECAST YR | 2019 | 42,948,430                                     | 4,182,996                                                                   | 24,522,045                              | 26,119,719                              |
| 13th FORECAST YR | 2020 | 43,711,491                                     | 4,229,529                                                                   | 24,918,307                              | 26,321,413                              |
| 14th FORECAST YR | 2021 | 41,070,043                                     | 4,277,524                                                                   | 25,091,149                              | 26,713,620                              |

| 7610.0310 Item E. Part 1: FIRM PURCHASES |      |        |                   |                    |                      |              |              |       |
|------------------------------------------|------|--------|-------------------|--------------------|----------------------|--------------|--------------|-------|
| EXPRESSED IN MEGAWATTS                   |      |        |                   |                    |                      |              |              |       |
|                                          |      |        | Basin Electric    | Great River Energy | Western Area         | Manitoba 150 | Manitoba 200 | Total |
|                                          |      |        | Power Cooperative |                    | Power Administration |              |              |       |
| PAST YEAR                                | 2006 | SUMMER | 54                | 81                 | 2                    | 150          | 200          | 487   |
|                                          |      | WINTER | 54                | 81                 | 2                    | 0            | 0            | 137   |
| PRESENT YEAR                             | 2007 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 1st FORECAST YR                          | 2008 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 2nd FORECAST YR                          | 2009 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 3rd FORECAST YR                          | 2010 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 4th FORECAST YR                          | 2011 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 5th FORECAST YR                          | 2012 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 6th FORECAST YR                          | 2013 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 7th FORECAST YR                          | 2014 | SUMMER |                   |                    | 2                    | 150          | 200          | 352   |
|                                          |      | WINTER |                   |                    | 2                    | 0            | 0            | 2     |
| 8th FORECAST YR                          | 2015 | SUMMER |                   |                    | 2                    |              | 200          | 202   |
|                                          |      | WINTER |                   |                    | 2                    |              | 0            | 2     |
| 9th FORECAST YR                          | 2016 | SUMMER |                   |                    | 2                    |              | 200          | 202   |
|                                          |      | WINTER |                   |                    | 2                    |              | 0            | 2     |
| 10th FORECAST YR                         | 2017 | SUMMER |                   |                    | 2                    |              |              | 2     |
|                                          |      | WINTER |                   |                    | 2                    |              |              | 2     |
| 11th FORECAST YR                         | 2018 | SUMMER |                   |                    | 2                    |              |              | 2     |
|                                          |      | WINTER |                   |                    | 2                    |              |              | 2     |
| 12th FORECAST YR                         | 2019 | SUMMER |                   |                    | 2                    |              |              | 2     |
|                                          |      | WINTER |                   |                    | 2                    |              |              | 2     |
| 13th FORECAST YR                         | 2020 | SUMMER |                   |                    | 2                    |              |              | 2     |
|                                          |      | WINTER |                   |                    | 2                    |              |              | 2     |
| 14th FORECAST YR                         | 2021 | SUMMER |                   |                    | 2                    |              |              | 2     |
|                                          |      | WINTER |                   |                    | 2                    |              |              | 2     |

| 7610.0310 Item E. Part 2: FIRM SALES |      |        |              |              |       |
|--------------------------------------|------|--------|--------------|--------------|-------|
| EXPRESSED IN MEGAWATTS               |      |        |              |              |       |
|                                      |      |        | Manitoba 150 | Manitoba 200 | Total |
| PAST YEAR                            | 2006 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| PRESENT YEAR                         | 2007 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 1st FORECAST YR                      | 2008 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 2nd FORECAST YR                      | 2009 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 3rd FORECAST YR                      | 2010 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 4th FORECAST YR                      | 2011 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 5th FORECAST YR                      | 2012 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 6th FORECAST YR                      | 2013 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 7th FORECAST YR                      | 2014 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 150          | 200          | 350   |
| 8th FORECAST YR                      | 2015 | SUMMER | 0            | 0            | 0     |
|                                      |      | WINTER | 400          | 200          | 600   |
| 9th FORECAST YR                      | 2016 | SUMMER | 0            |              | 0     |
|                                      |      | WINTER | 400          |              | 400   |
| 10th FORECAST YR                     | 2017 | SUMMER | 0            |              | 0     |
|                                      |      | WINTER | 400          |              | 400   |
| 11th FORECAST YR                     | 2018 | SUMMER | 0            |              | 0     |
|                                      |      | WINTER | 200          |              | 200   |
| 12th FORECAST YR                     | 2019 | SUMMER |              |              | 0     |
|                                      |      | WINTER |              |              | 0     |
| 13th FORECAST YR                     | 2020 | SUMMER |              |              | 0     |
|                                      |      | WINTER |              |              | 0     |
| 14th FORECAST YR                     | 2021 | SUMMER |              |              | 0     |
|                                      |      | WINTER |              |              | 0     |

7610.0310 Item F: Part I: PARTICIPATION PURCHASES  
EXPRESSED IN MEGAWATTS

| PART YEAR | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352 | 2353 | 2354 | 2355 | 2356 | 2357 | 2358 | 2359 | 2360 | 2361 | 2362 | 2363 | 2364 | 2365 | 2366 | 2367 | 2368 | 2369 | 2370 | 2371 | 2372 | 2373 | 2374 | 2375 | 2376 | 2377 | 2378 | 2379 | 2380 | 2381 | 2382 | 2383 | 2384 | 2385 | 2386 | 2387 | 2388 | 2389 | 2390 | 2391 | 2392 | 2393 | 2394 | 2395 | 2396 | 2397 | 2398 | 2399 | 2400 | 2401 | 2402 | 2403 | 2404 | 2405 | 2406 | 2407 | 2408 | 2409 | 2410 | 2411 | 2412 | 2413 | 2414 | 2415 | 2416 | 2417 | 2418 | 2419 | 2420 | 2421 | 2422 | 2423 | 2424 | 2425 | 2426 | 2427 | 2428 | 2429 | 2430 | 2431 | 2432 | 2433 | 2434 | 2435 | 2436 | 2437 | 2438 | 2439 | 2440 | 2441 | 2442 | 2443 | 2444 | 2445 | 2446 | 2447 | 2448 | 2449 | 2450 | 2451 | 2452 | 2453 | 2454 | 2455 | 2456 | 2457 | 2458 | 2459 | 2460 | 2461 | 2462 | 2463 | 2464 | 2465 | 2466 | 2467 | 2468 | 2469 | 2470 | 2471 | 2472 | 2473 | 2474 | 2475 | 2476 | 2477 | 2478 | 2479 | 2480 | 2481 | 2482 | 2483 | 2484 | 2485 | 2486 | 2487 | 2488 | 2489 | 2490 | 2491 | 2492 | 2493 | 2494 | 2495 | 2496 | 2497 | 2498 | 2499 | 2500 | 2501 | 2502 | 2503 | 2504 | 2505 | 2506 | 2507 | 2508 | 2509 | 2510 | 2511 | 2512 | 2513 | 2514 | 2515 | 2516 | 2517 | 2518 | 2519 | 2520 | 2521 | 2522 | 2523 | 2524 | 2525 | 2526 | 2527 | 2528 | 2529 | 2530 | 2531 | 2532 | 2533 | 2534 | 2535 | 2536 | 2537 | 2538 | 2539 | 2540 | 2541 | 2542 | 2543 | 2544 | 2545 | 2546 | 2547 | 2548 | 2549 | 2550 | 2551 | 2552 | 2553 | 2554 | 2555 | 2556 | 2557 | 2558 | 2559 | 2560 | 2561 | 2562 | 2563 | 2564 | 2565 | 2566 | 2567 | 2568 | 2569 | 2570 | 2571 | 2572 | 2573 | 2574 | 2575 | 2576 | 2577 | 2578 | 2579 | 2580 | 2581 | 2582 | 2583 | 2584 | 2585 | 2586 | 2587 | 2588 | 2589 | 2590 | 2591 | 2592 | 2593 | 2594 | 2595 | 2596 | 2597 | 2598 | 2599 | 2600 | 2601 | 2602 | 2603 | 2604 | 2605 | 2606 | 2607 | 2608 | 2609 | 2610 | 2611 | 2612 | 2613 | 2614 | 2615 | 2616 | 2617 | 2618 | 2619 | 2620 | 2621 | 2622 | 2623 | 2624 | 2625 | 2626 | 2627 | 2628 | 2629 | 2630 | 2631 | 2632 | 2633 | 2634 | 2635 | 2636 | 2637 | 2638 | 2639 | 2640 | 2641 | 2642 | 2643 | 2644 | 2645 | 2646 | 2647 | 2648 | 2649 | 2650 | 2651 | 2652 | 2653 | 2654 | 2655 | 2656 | 2657 | 2658 | 2659 | 2660 | 2661 | 2662 | 2663 | 2664 | 2665 | 2666 | 2667 | 2668 | 2669 | 2670 | 2671 | 2672 | 2673 | 2674 | 2675 | 2676 | 2677 | 2678 | 2679 | 2680 | 2681 | 2682 | 2683 | 2684 | 2685 | 2686 | 2687 | 2688 | 2689 | 2690 | 2691 | 2692 | 2693 | 2694 | 2695 | 2696 | 2697 | 2698 | 2699 | 2700 | 2701 | 2702 | 2703 | 2704 | 2705 | 2706 | 2707 | 2708 | 2709 | 2710 | 2711 | 2712 | 2713 | 2714 | 2715 | 2716 | 2717 | 2718 | 2719 | 2720 | 2721 | 2722 | 2723 | 2724 | 2725 | 2726 | 2727 | 2728 | 2729 | 2730 | 2731 | 2732 | 2733 | 2734 | 2735 | 2736 | 2737 | 2738 | 2739 | 2740 | 2741 | 2742 | 2743 | 2744 | 2745 | 2746 | 2747 | 2748 | 2749 | 2750 | 2751 | 2752 | 2753 | 2754 | 2755 | 2756 | 2757 | 2758 | 2759 | 2760 | 2761 | 2762 | 2763 | 2764 | 2765 | 2766 | 2767 | 2768 | 2769 | 2770 | 2771 | 2772 | 2773 | 2774 | 2775 | 2776 | 2777 | 2778 | 2779 | 2780 | 2781 | 2782 | 2783 | 2784 | 2785 | 2786 | 2787 | 2788 | 2789 | 2790 | 2791 | 2792 | 2793 | 2794 | 2795 | 2796 | 2797 | 2798 | 2799 | 2800 | 2801 | 2802 | 2803 | 2804 | 2805 | 2806 | 2807 | 2808 | 2809 | 2810 | 2811 | 2812 | 2813 | 2814 | 2815 | 2816 | 2817 | 2818 | 2819 | 2820 | 2821 | 2822 | 2823 | 2824 | 2825 | 2826 | 2827 | 2828 | 2829 | 2830 | 2831 | 2832 | 2833 | 2834 | 2835 | 2836 | 2837 | 2838 | 2839 | 2840 | 2841 | 2842 | 2843 | 2844 | 2845 | 2846 | 2847 | 2848 | 2849 | 2850 | 2851 | 2852 | 2853 | 2854 | 2855 | 2856 | 2857 | 2858 | 2859 | 2860 | 2861 | 2862 | 2863 | 2864 | 2865 | 2866 | 2867 | 2868 | 2869 | 2870 | 2871 | 2872 | 2873 | 2874 | 2875 | 2876 | 2877 | 2878 | 2879 | 2880 | 2881 | 2882 | 2883 | 2884 | 2885 | 2886 | 2887 | 2888 | 2889 | 2890 | 2891 | 2892 | 2893 | 2894 | 2895 | 2896 | 2897 | 2898 | 2899 | 2900 | 2901 | 2902 | 2903 | 2904 | 2905 | 2906 | 2907 | 2908 | 2909 | 2910 | 2911 | 2912 | 2913 | 2914 | 2915 | 2916 | 2917 | 2918 | 2919 | 2920 | 2921 | 2922 | 2923 | 2924 | 2925 | 2926 | 2927 | 2928 | 2929 | 2930 | 2931 | 2932 | 2933 | 2934 | 2935 | 2936 | 2937 | 2938 | 2939 | 2940 | 2941 | 2942 | 2943 | 2944 | 2945 | 2946 | 2947 | 2948 | 2949 | 2950 | 2951 | 2952 | 2953 | 2954 | 2955 | 2956 | 2957 | 2958 | 2959 | 2960 | 2961 | 2962 | 2963 | 2964 | 2965 | 2966 | 2967 | 2968 | 2969 | 2970 | 2971 | 2972 | 2973 | 2974 | 2975 | 2976 | 2977 | 2978 | 2979 | 2980 | 2981 | 2982 | 2983 | 2984 | 2985 | 2986 | 2987 | 2988 | 2989 | 2990 | 2991 | 2992 | 2993 | 2994 | 2995 | 2996 | 2997 | 2998 | 2999 | 3000 | 3001 | 3002 | 3003 | 3004 | 3005 | 3006 | 3007 | 3008 | 3009 | 3010 | 3011 | 3012 | 3013 | 3014 | 3015 | 3016 | 3017 | 3018 | 3019 | 3020 | 3021 | 3022 | 3023 | 3024 | 3025 | 3026 | 3027 | 3028 | 3029 | 3030 | 3031 | 3032 | 3033 | 3034 | 3035 | 3036 | 3037 | 3038 | 3039 | 3040 | 3041 | 3042 | 3043 | 3044 | 3045 | 3046 | 3047 | 3048 | 3049 | 3050 | 3051 | 3052 | 3053 | 3054 | 3055 | 3056 | 3057 | 3058 | 3059 | 3060 | 3061 | 3062 | 3063 | 3064 | 3065 | 3066 | 3067 | 3068 | 3069 | 3070 | 3071 | 3072 | 3073 | 3074 | 3075 | 3076 | 3077 | 3078 | 3079 | 3080 | 3081 | 3082 | 3083 | 3084 | 3085 | 3086 | 3087 | 3088 | 3089 | 3090 | 3091 | 3092 | 3093 | 3094 | 3095 | 3096 | 3097 | 3098 | 3099 | 3100 | 3101 | 3102 | 3103 | 3104 | 3105 | 3106 | 3107 | 3108 | 3109 | 3110 | 3111 | 3112 | 3113 | 3114 | 3115 | 3116 | 3117 | 3118 | 3119 | 3120 | 3121 | 3122 | 3123 | 3124 | 3125 | 3126 | 3127 | 3128 | 3129 | 3130 | 3131 | 3132 | 3133 | 3134 | 3135 | 3136 | 3137 | 3138 | 3139 | 3140 | 3141 | 3142 | 3143 | 3144 | 3145 | 3146 | 3147 | 3148 | 3149 | 3150 | 3151 | 3152 | 3153 | 3154 | 3155 | 3156 | 3157 | 3158 | 3159 | 3160 | 3161 | 3162 | 3163 | 3164 | 3165 | 3166 | 3167 | 3168 | 3169 | 3170 | 3171 | 3172 | 3173 | 3174 | 3175 | 3176 | 3177 | 3178 | 3179 | 3180 | 3181 | 3182 | 3183 | 3184 | 3185 | 3186 | 3187 | 3188 | 3189 | 3190 | 3191 | 3192 | 3193 | 3194 | 3195 | 3196 | 3197 | 3198 | 3199 | 3200 | 3201 | 3202 | 3203 | 3204 | 3205 | 3206 | 3207 | 3208 | 3209 | 3210 | 3211 | 3212 | 3213 | 3214 | 3215 | 3216 | 3217 | 3218 | 3219 | 3220 | 3221 | 3222 | 3223 | 3224 | 3225 | 3226 | 3227 | 3228 | 3229 | 3230 | 3231 | 3232 | 3233 | 3234 | 3235 | 3236 | 3237 | 3238 | 3239 | 3240 | 3241 | 3242 | 3243 | 3244 | 3245 | 3246 | 3247 | 3248 | 3249 | 3250 | 3251 | 3252 | 3253 | 3254 | 3255 | 3256 | 3257 | 3258 | 3259 | 3260 | 3261 | 3262 | 3263 | 3264 | 3265 | 3266 | 3267 | 3268 | 3269 | 3270 | 3271 | 3272 | 3273 | 3274 | 3275 | 3276 | 3277 | 3278 | 3279 | 3280 | 3281 | 3282 | 3283 | 3284 | 3285 | 3286 | 3287 | 3288 | 3289 | 3290 | 3291 | 3292 | 3293 | 3294 | 3295 | 3296 | 3297 | 3298 | 3299 | 3300 | 3301 | 3302 | 3303 | 3304 | 3305 | 3306 | 3307 | 3308 | 3309 | 3310 | 3311 | 3312 | 3313 | 3314 | 3315 | 3316 | 3317 | 3318 | 3319 | 3320 | 3321 | 3322 | 3323 | 3324 | 3325 | 3326 | 3327 | 3328 | 3329 | 3330 | 3331 | 3332 | 3333 | 3334 | 3335 | 3336 | 3337 | 3338 | 3339 | 3340 | 3341 | 3342 | 3343 | 3344 | 3345 | 3346 | 3347 | 3348 | 3349 | 3350 | 3351 | 3352 | 3353 | 3354 | 3355 | 3356 | 3357 | 3358 | 3359 | 3360 | 3361 | 3362 | 3363 | 3364 | 3365 |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---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## 7610.0310 Item F. Part 2: PARTICIPATION SALES

## EXPRESSED IN MEGAWATTS

|                  |      |        | United Power | Great River | Montana        | Montana        | Gensys | Constellation     | Otter Tail | Total |
|------------------|------|--------|--------------|-------------|----------------|----------------|--------|-------------------|------------|-------|
|                  |      |        | Association  | Energy      | Dakota Utility | Dakota Utility | Energy | Commodities Group | Power      |       |
| PAST YEAR        | 2006 | SUMMER |              | 50          |                |                |        |                   | 32         | 82    |
|                  |      | WINTER | 50           |             |                |                |        |                   | 87         | 137   |
| PRESENT YEAR     | 2007 | SUMMER |              | 100         | 85             | 10             | 50     |                   |            | 245   |
|                  |      | WINTER | 50           |             |                |                |        | 100               |            | 150   |
| 1st FORECAST YR  | 2008 | SUMMER |              | 150         | 90             | 10             |        |                   |            | 250   |
|                  |      | WINTER | 50           |             |                |                |        |                   |            | 50    |
| 2nd FORECAST YR  | 2009 | SUMMER |              |             | 95             | 10             |        |                   |            | 105   |
|                  |      | WINTER | 50           |             |                |                |        |                   |            | 50    |
| 3rd FORECAST YR  | 2010 | SUMMER |              |             | 100            | 10             |        |                   |            | 110   |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 4th FORECAST YR  | 2011 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 5th FORECAST YR  | 2012 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 6th FORECAST YR  | 2013 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 7th FORECAST YR  | 2014 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 8th FORECAST YR  | 2015 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 9th FORECAST YR  | 2016 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 10th FORECAST YR | 2017 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 11th FORECAST YR | 2018 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 12th FORECAST YR | 2019 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 13th FORECAST YR | 2020 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |
| 14th FORECAST YR | 2021 | SUMMER |              |             |                |                |        |                   |            |       |
|                  |      | WINTER |              |             |                |                |        |                   |            |       |

## 7610.0310 Item G - Load and Generation Capacity

Expressed in Megawatts

|                                                                | Past Year<br>2006 |        | Present Year<br>2007 |        | 1st Forecast Year<br>2008 |        | 2nd Forecast Year<br>2009 |        | 3rd Forecast Year<br>2010 |        | 4th Forecast Year<br>2011 |        | 5th Forecast Year<br>2012 |        | 6th Forecast Year<br>2013 |        |
|----------------------------------------------------------------|-------------------|--------|----------------------|--------|---------------------------|--------|---------------------------|--------|---------------------------|--------|---------------------------|--------|---------------------------|--------|---------------------------|--------|
|                                                                | summer            | winter | summer               | winter | summer                    | winter | summer                    | winter | summer                    | winter | summer                    | winter | summer                    | winter | summer                    | winter |
| (1) seasonal maximum demand                                    | 9027              | 6887   | 9277                 | 7327   | 9479                      | 7498   | 9513                      | 7155   | 9695                      | 7193   | 9888                      | 7243   | 10088                     | 7304   | 10197                     | 7317   |
| (2) schedule L purchased at the time of seasonal system demand | 0                 | 0      | 0                    | 0      | 0                         | 0      | 0                         | 0      | 0                         | 0      | 0                         | 0      | 0                         | 0      | 0                         | 0      |
| (3) seasonal system demand                                     | 9027              | 6887   | 9277                 | 7327   | 9479                      | 7498   | 9513                      | 7155   | 9695                      | 7193   | 9888                      | 7243   | 10088                     | 7304   | 10197                     | 7317   |
| (4) annual system demand                                       | 9027              | 9027   | 9277                 | 9277   | 9479                      | 9479   | 9513                      | 9513   | 9695                      | 9695   | 9888                      | 9888   | 10088                     | 10088  | 10197                     | 10197  |
| (5) seasonal firm purchases - total                            | 487               | 137    | 352                  | 2      | 352                       | 2      | 352                       | 2      | 352                       | 2      | 352                       | 2      | 352                       | 2      | 352                       | 2      |
| (6) seasonal firm sales - total                                | 0                 | 350    | 0                    | 350    | 0                         | 350    | 0                         | 350    | 0                         | 350    | 0                         | 350    | 0                         | 350    | 0                         | 350    |
| (7) seasonal adjusted net demand (3-5+6)                       | 8540              | 7100   | 8925                 | 7675   | 9127                      | 7846   | 9161                      | 7502   | 9343                      | 7540   | 9536                      | 7591   | 9736                      | 7652   | 9845                      | 7665   |
| (8) annual adjusted net demand (4-5+6)                         | 8540              | 9240   | 8925                 | 9625   | 9127                      | 9826   | 9161                      | 9861   | 9343                      | 10042  | 9536                      | 10236  | 9736                      | 10436  | 9845                      | 10544  |
| (9) net generating capability                                  | 7627              | 7936   | 7577                 | 7616   | 7432                      | 7895   | 7984                      | 8416   | 8048                      | 8479   | 8155                      | 8586   | 8167                      | 8599   | 8257                      | 8689   |
| (10) participation purchases - total                           | 2763              | 1496   | 2941                 | 1605   | 2909                      | 1758   | 2784                      | 1758   | 2875                      | 1939   | 2727                      | 1910   | 2728                      | 1931   | 2938                      | 2188   |
| (11) participation sales - total                               | 82                | 137    | 245                  | 150    | 250                       | 50     | 105                       | 50     | 110                       | 0      | 0                         | 0      | 0                         | 0      | 0                         | 0      |
| (12) adjusted net capability (9+10-11)                         | 10308             | 9295   | 10272                | 9071   | 10091                     | 9602   | 10664                     | 10124  | 10813                     | 10418  | 10882                     | 10496  | 10895                     | 10530  | 11194                     | 10877  |
| (13) net reserve capacity obligation                           | 1281              | 1386   | 1339                 | 1444   | 1369                      | 1474   | 1374                      | 1479   | 1401                      | 1506   | 1430                      | 1535   | 1460                      | 1565   | 1477                      | 1582   |
| (14) total firm capacity obligation (7+13)                     | 9821              | 8486   | 10264                | 9119   | 10496                     | 9320   | 10535                     | 8981   | 10744                     | 9047   | 10967                     | 9127   | 11197                     | 9217   | 11321                     | 9246   |
| (15) surplus (+) or deficit (-) capacity (12-14)               | 487               | 809    | 9                    | -48    | -405                      | 282    | 129                       | 1142   | 69                        | 1372   | -85                       | 1370   | -302                      | 1313   | -127                      | 1631   |

Note: The Forecasted Seasonal Maximum Demand values reflect a 90%/10% Confidence Level for the summer and winter peaks.

Xcel Energy's Initial Modeling of the Demand Side Management standards established in SF 145 - Next Generation Energy Act of 2007.

Grand Meadow considered at nameplate.

**7610.0310 Item G - Load and Generation Capacity**  
**Expressed in Megawatts**

|                                                                | 7th Forecast Year<br>2014 |        | 8th Forecast Year<br>2015 |        | 9th Forecast Year<br>2016 |        | 10th Forecast Year<br>2017 |        | 11th Forecast Year<br>2018 |        | 12th Forecast Year<br>2019 |        | 13th Forecast Year<br>2020 |        | 14th Forecast Year<br>2021 |        |
|----------------------------------------------------------------|---------------------------|--------|---------------------------|--------|---------------------------|--------|----------------------------|--------|----------------------------|--------|----------------------------|--------|----------------------------|--------|----------------------------|--------|
|                                                                | summer                    | winter | summer                    | winter | summer                    | winter | summer                     | winter | summer                     | winter | summer                     | winter | summer                     | winter | summer                     | winter |
| (1) seasonal maximum demand                                    | 10369                     | 7384   | 10488                     | 7415   | 10635                     | 7472   | 10750                      | 7511   | 10904                      | 7556   | 11059                      | 7608   | 11211                      | 7662   | 11301                      | 7684   |
| (2) schedule L purchased at the time of seasonal system demand | 0                         | 0      | 0                         | 0      | 0                         | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      |
| (3) seasonal system demand                                     | 10369                     | 7384   | 10488                     | 7415   | 10635                     | 7472   | 10750                      | 7511   | 10904                      | 7556   | 11059                      | 7608   | 11211                      | 7662   | 11301                      | 7684   |
| (4) annual system demand                                       | 10369                     | 10369  | 10488                     | 10488  | 10635                     | 10635  | 10750                      | 10750  | 10904                      | 10904  | 11059                      | 11059  | 11211                      | 11211  | 11301                      | 11301  |
| (5) seasonal firm purchases - total                            | 352                       | 2      | 202                       | 2      | 202                       | 2      | 2                          | 2      | 2                          | 2      | 2                          | 2      | 2                          | 2      | 2                          | 2      |
| (6) seasonal firm sales - total                                | 0                         | 350    | 0                         | 600    | 0                         | 400    | 0                          | 400    | 0                          | 200    | 0                          | 0      | 0                          | 0      | 0                          | 0      |
| (7) seasonal adjusted net demand (3-5+6)                       | 10017                     | 7732   | 10286                     | 8013   | 10433                     | 7870   | 10748                      | 7909   | 10902                      | 7753   | 11057                      | 7606   | 11208                      | 7660   | 11299                      | 7681   |
| (8) annual adjusted net demand (4-5+6)                         | 10017                     | 10716  | 10286                     | 11086  | 10433                     | 11033  | 10748                      | 11148  | 10902                      | 11102  | 11057                      | 11057  | 11208                      | 11208  | 11299                      | 11299  |
| (9) net generating capability                                  | 8257                      | 8689   | 8347                      | 8779   | 8347                      | 8779   | 8347                       | 8779   | 8347                       | 8779   | 8347                       | 8779   | 8347                       | 8779   | 8347                       | 8779   |
| (10) participation purchases - total                           | 3075                      | 2360   | 2951                      | 2235   | 3235                      | 2805   | 3507                       | 3123   | 3882                       | 3563   | 4153                       | 3882   | 4289                       | 4042   | 4425                       | 4203   |
| (11) participation sales - total                               | 0                         | 0      | 0                         | 0      | 0                         | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      | 0                          | 0      |
| (12) adjusted net capability (9+10-11)                         | 11332                     | 11048  | 11298                     | 11013  | 11582                     | 11583  | 11854                      | 11902  | 12229                      | 12341  | 12500                      | 12661  | 12636                      | 12821  | 12772                      | 12981  |
| (13) net reserve capacity obligation                           | 1502                      | 1607   | 1543                      | 1663   | 1565                      | 1655   | 1612                       | 1672   | 1635                       | 1665   | 1659                       | 1658   | 1681                       | 1681   | 1695                       | 1695   |
| (14) total firm capacity obligation (7+13)                     | 11519                     | 9339   | 11829                     | 9675   | 11998                     | 9525   | 12360                      | 9581   | 12538                      | 9419   | 12715                      | 9264   | 12890                      | 9341   | 12994                      | 9376   |
| (15) surplus (+) or deficit (-) capacity (12-14)               | -187                      | 1709   | -532                      | 1338   | -416                      | 2058   | -506                       | 2320   | -309                       | 2923   | -215                       | 3397   | -254                       | 3480   | -222                       | 3605   |

Note: The Forecasted Seasonal Maximum Demand values reflect a 90%/10% Confidence Level for the summer and winter peaks.

Xcel Energy's Initial Modeling of the Demand Side Management standards established in SF 145 - Next Generation Energy Act of 2007.

Grand Meadow considered at nameplate.



**7610.0310 Item H – Additions and Retirements in Generating Capacity**  
Expressed in Megawatts

|                         | Additions | Retirements |
|-------------------------|-----------|-------------|
| Present Year 2007       |           | 274         |
| 1st Forecast Year 2008  | 615       | 387         |
| 2nd Forecast Year 2009  | 454       |             |
| 3rd Forecast Year 2010  | 63        |             |
| 4th Forecast Year 2011  | 107       |             |
| 5th Forecast Year 2012  | 12        |             |
| 6th Forecast Year 2013  | 90        |             |
| 7th Forecast Year 2014  |           |             |
| 8th Forecast Year 2015  | 90        |             |
| 9th Forecast Year 2016  |           |             |
| 10th Forecast Year 2017 |           |             |
| 11th Forecast Year 2018 |           |             |
| 12th Forecast Year 2019 |           |             |
| 13th Forecast Year 2020 |           |             |
| 14th Forecast Year 2021 |           |             |

Grand Meadow considered at nameplate.

# Xcel Energy

## Peak Demand and Annual Electric Consumption Forecast

### 7610.0320 – Subparts 1, 2, 3, 4 and 5

#### Forecast Methodology

##### OVERALL METHODOLOGICAL FRAMEWORK

Xcel Energy prepared its forecast by major customer class and jurisdiction, using a variety of statistical and econometric techniques. The NSP System serves five jurisdictions. Minnesota, North Dakota and South Dakota are served by Northern States Power Company. Wisconsin and Michigan are served by Northern States Power Company, a Wisconsin corporation (NSPW). The overall methodological framework is “model oriented”. The NSP and NSPW Systems operate as an integrated system. The forecast is referred to as the 2008 Budget Forecast (March, 2007).

##### SPECIFIC ANALYTICAL TECHNIQUES

1. Econometric Analysis. Xcel Energy used econometric analysis to develop jurisdictional MWh sales forecasts at the customer meter for the following sectors:
  - a. Residential without Space Heating;
  - b. Residential with Space Heating;
  - c. Small Commercial and Industrial;
  - d. Large Commercial and Industrial.Xcel Energy also used econometric analysis to develop the total system Mw demand forecast.
2. Trend analysis was used for the “Other” sectors, which includes Public Street and Highway Lighting, Other Sales to Public Authorities, Interdepartmental sales, and Municipals (firm Wholesale).
3. Loss Factor Methodology. Loss factors by legal entity were used to convert the sales forecasts into system energy requirements (at the generator).
4. Judgment. Judgment is inherent to the development of any forecast. Whenever possible, Xcel Energy used quantitative models to structure its judgment in the forecasting process.

The sales forecasts are estimates of MWh levels measured at the customer meter. They do not include line or other losses. The various jurisdictional class forecasts are summed to yield the total system sales forecast. Native energy requirements are measured at the generator and include line and other losses. Xcel Energy creates native energy requirements based on the sales forecasts. A system loss factor for each legal entity, developed based on average historical losses, is applied to the sales forecast to calculate total losses. The sum of the MWh sales and losses equals native energy requirements. The native energy requirements, along with peak producing weather and binary variables, are then used as independent variables within an econometric model to forecast Mw peak demand for the Xcel Energy North System.

Summing the various jurisdictional class forecasts yields the total system sales forecast. A monthly loss factor is applied to convert MWh sales to MWh native energy requirements.

## MODELS USED

1. Residential Econometric Models. Sales to the residential sectors represent 27 percent of its total NSP System electric sales in 2006. Residential sales are divided into with space heating and without space heating customer classes for each jurisdiction. Ordinary Least Squares models using historical data were developed for each residential sector. A variety of independent variables were used in the models, including:
  - Number of customers;
  - Actual heating and temperature humidity index (THI) degree days;
  - Number of monthly billing days.
2. Small Commercial and Industrial Econometric Models. The small commercial and industrial sector represents 41.6 percent of NSP System electric sales in 2006. The models are ordinary least squares regressions using historical data. The models include a combination of variables, including the following:
  - Number of small commercial and industrial customers;
  - Gross Metro Product for respective jurisdiction;
  - Actual heating and temperature humidity index (THI) degree days;
3. Large Commercial and Industrial Econometric Models. Sales to the large commercial and industrial sector represent 27.8 percent of NSP System electric sales in 2006. The models are OLS regressions using historic data and a combination of variables, including the following:
  - Gross Metro Product for respective jurisdiction;
  - Number of monthly billing days;
  - Indicator variables such as CI reclassification.
4. Others. Sales to the "Others" sector represent 0.7 percent of NSP System electric sales in 2006. This sector includes Public Street and Highway Lighting (PSHL), Sales to Public Authorities (OSPA) and Interdepartmental (IDS) sales. Because this class represents a very small portion of the total sales, trend analysis was used and very little growth was forecast.
5. Municipals. Sales to the Municipal utility sector represent 2.9 percent of NSP System electric sales in 2006. The municipal class is forecast using separate trend analysis at the individual customer level for NSP and NSPW. The forecast of these municipal customers only includes firm wholesale customer usage.
6. Peak Demand Model. An econometric model was developed to forecast base peak demand for the entire planning period. The model includes a combination of variables, including the following:
  - Weather normalized native energy requirements
  - Peak producing weather by month
  - Binary variables

## METHODOLOGY STRENGTHS AND WEAKNESSES

The strength of the process Xcel Energy used for this forecast is the richness of the information obtained during the analysis. Xcel Energy's econometric forecasting models are based on sound economic and statistical theory. Historical modeling and forecast drivers are based on economic and demographic variables that are easily measured and analyzed. The use of models by class and jurisdiction gives greater insight into how the NSP System is growing, thereby providing better information for decisions to be made in the areas of generation, transmission, marketing, conservation, and load management.

With respect to accuracy, forecasts of this duration are inherently uncertain. Planners and decision makers must be keenly aware of the inherent risk that accompanies long-term forecasts. They must also develop plans that are robust over a wide range of future outcomes.

## Database for Forecasts

### DATA DEFINITIONS

The following is a list of definitions of the variables considered in Xcel Energy's econometric models.

#### Jurisdiction Abbreviations

|          |                       |
|----------|-----------------------|
| M or MN  | State of Minnesota    |
| N or ND  | State of North Dakota |
| S or SD  | State of South Dakota |
| W or WI  | State of Wisconsin    |
| Mi or MI | State of Michigan     |

#### Monthly MWh Sales Series

|               |                                                          |
|---------------|----------------------------------------------------------|
| SLS(Juris)RX  | Residential without space heating for given jurisdiction |
| SLS(Juris)RH  | Residential with space heating for given jurisdiction    |
| SLS(Juris)SCI | Small commercial and industrial for given jurisdiction   |
| SLS(Juris)LCI | Large commercial and industrial for given jurisdiction   |

#### Monthly Customer Series

|            |                                                          |
|------------|----------------------------------------------------------|
| NRX(Juris) | Residential without space heating for given jurisdiction |
| NRH(Juris) | Residential with space heating for given jurisdiction    |
| NSC(Juris) | Small commercial and industrial for given jurisdiction   |
| NLC(Juris) | Large commercial and industrial for given jurisdiction   |

#### Monthly Economic and Demographic Series

|           |                                                             |
|-----------|-------------------------------------------------------------|
| (Juris)HH | Number of Households in given jurisdiction                  |
| GMP(MSA)  | Gross Metro Product for given metropolitan statistical area |

|               |                                                          |
|---------------|----------------------------------------------------------|
| EEA_(Juris)   | Total non-farm employment in given jurisdiction          |
| EM_(Juris)    | Total manufacturing employment in given jurisdiction     |
| EnonM_(Juris) | Total non-manufacturing employment in given jurisdiction |
| YP96@(Juris)  | Personal income in given jurisdiction                    |

#### Monthly Data Variables used in Demand Model

|                  |                                                                                                                            |
|------------------|----------------------------------------------------------------------------------------------------------------------------|
| THI12(Month)Cust | Temperature Humidity Index @12:00 noon<br>multiplied by total retail customers                                             |
| HDDWtr           | Normal Heating Degree Days on the day of the Peak<br>Multiplied by a binary variable for December, January<br>and February |
| WNEnergy12MoSum  | 12 month rolling sum of the weather normalized net<br>energy requirements                                                  |

#### Monthly Weather Variables

|                    |                                                 |
|--------------------|-------------------------------------------------|
| R(Juris)H65(Month) | HDD base 65 for given jurisdiction and month    |
| R(Juris)T65(Month) | THI DD base 65 for given jurisdiction and month |

#### Monthly Binary Variables

|     |                                            |
|-----|--------------------------------------------|
| Jan | Binary variable for the month of January   |
| Feb | Binary variable for the month of February  |
| Mar | Binary variable for the month of March     |
| Apr | Binary variable for the month of April     |
| May | Binary variable for the month of May       |
| Jun | Binary variable for the month of June      |
| Jul | Binary variable for the month of July      |
| Aug | Binary variable for the month of August    |
| Sep | Binary variable for the month of September |
| Oct | Binary variable for the month of October   |
| Nov | Binary variable for the month of November  |
| Dec | Binary variable for the month of December  |

Xcel Energy used internal and external data to create its MWh sales and Mw peak demand forecast.

Historical MWh sales are taken from Xcel Energy's internal company records, fed by its billing system. Historical coincident net peak demand data is obtained through company records. The load management estimate is added to the net peak demand to derive the base peak demand.

Weather data (dry bulb temperature and dew points) are collected from a respected local meteorologist (Mr. Frank Watson) for the Minneapolis/St. Paul, Fargo, Sioux Falls, and Eau Claire areas. The heating degree-days and THI degree-days were calculated internally based on this weather data.

Economic and demographic data was obtained from the Bureau of Labor Statistics, U.S. Department of Commerce, and the Bureau of Economic Analysis. Typically they are

**Northern States Power Company**  
**2007 Jurisdictional Annual Reports**  
**System Net Energy Requirements (MWh), Summer and Winter Peak Demand (Mw)**

| <b>Year</b> | <b>Net Energy<br/>Requirements (MWh)</b> | <b>Net Summer<br/>Peak (Mw)</b> | <b>Net Winter<br/>Peak (Mw)</b> |
|-------------|------------------------------------------|---------------------------------|---------------------------------|
| 2007        | 47,741,896                               | 8,584                           | 7,069                           |
| 2008        | 48,299,200                               | 8,810                           | 7,138                           |
| 2009        | 48,829,622                               | 8,934                           | 7,205                           |
| 2010        | 49,537,523                               | 9,124                           | 7,292                           |
| 2011        | 50,169,349                               | 9,296                           | 7,370                           |
| 2012        | 50,752,962                               | 9,488                           | 7,442                           |
| 2013        | 51,310,171                               | 9,633                           | 7,511                           |
| 2014        | 51,857,925                               | 9,813                           | 7,578                           |
| 2015        | 52,419,640                               | 9,982                           | 7,648                           |
| 2016        | 53,012,928                               | 10,170                          | 7,720                           |
| 2017        | 53,629,066                               | 10,315                          | 7,796                           |
| 2018        | 54,277,413                               | 10,509                          | 7,875                           |
| 2019        | 54,923,440                               | 10,687                          | 7,953                           |
| 2020        | 55,564,816                               | 10,878                          | 8,031                           |
| 2021        | 56,174,843                               | 11,017                          | 8,105                           |
| 2022        | 56,811,606                               | 11,206                          | 8,182                           |
| 2023        | 57,452,197                               | 11,381                          | 8,260                           |
| 2024        | 58,093,342                               | 11,572                          | 8,338                           |
| 2025        | 58,740,630                               | 11,718                          | 8,417                           |

**Average Annual Growth Rate, 2007-2025:**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| <b>% growth:</b> | <b>1.2%</b> | <b>1.7%</b> | <b>1.0%</b> |
|------------------|-------------|-------------|-------------|

accessed from Global Insight, Inc. data banks, and reflect the most recent values of those series at the time of modeling.

## Overview of Probability Distributions

Xcel Energy used a straightforward extension of the peak demand econometric model to assess risk around the expected value of the peak demand by conducting a Monte Carlo simulation on the main drivers of the peak model (weather and native energy requirements). For the Monte Carlo energy probability distribution model, the main drivers were weather and Minnesota Gross State Product (MN GSP).

The Monte Carlo stochastic simulation of peak demand (MW) or (energy (MWh)) involves taking 10,000 random draws from the weather probability distributions as well as 10,000 draws from the 12-month sum of energy probability distribution (or MN GSP probability distribution), which, in turn, produces 10,000 forecasts of peak demand (or energy), and thus generates a probability distribution around the mean peak demand (or mean energy).

For example, if the econometric model forecasts that the mean peak demand for 2007 is 9,536 MW, then using the same econometric model, the Monte Carlo simulation method forecasts that there is a 90% probability that the 2007 peak demand will be less than or equal to 10,180 MW, or alternatively, a 10% chance that the peak will be greater than 10,180 MW.

In summary, the Monte Carlo stochastic simulation method adequately captures the effect of extreme weather on monthly peak demand and month energy usage, while preserving the expected value or mean forecast of peak demand and energy.

## Data Adjustments and Assumptions

1. **Weather Adjustments.** Xcel Energy adjusted its monthly weather data to reflect billing schedules. Therefore, the monthly weather data corresponds exactly with the billing month schedule.
2. **Economic Adjustments.** All price data and related economic series were deflated to 2000 constant dollars.

## Assumptions and Special Information

The data used in Xcel Energy's forecasting process has already been discussed in a general way. Descriptions and citations of sources for the data sets have been mentioned within this documentation under different sections.

Xcel Energy believes that its process is a reasonable and workable one to use as a guide for its future energy and load requirements. The underlying assumptions used to prepare Xcel Energy's median forecast are as follows:

1. **Demographic Assumption.** Population or household projections are essential in the development of the long-range forecast. The forecasts of customers are derived from population and household projections provided by Global Insight, Inc., and reviewed by Xcel Energy staff. Xcel Energy customer growth mirrors demographic growth over the forecast period.
2. **Weather Assumption.** Xcel Energy assumed “normal” weather in the forecast horizon. Normal weather is defined as the average weather pattern over the 20-year period from 1987-2006. The variability of weather is an important source of uncertainty. Xcel Energy’s energy forecasts are based on the assumption that the normal weather conditions will prevail in the forecast horizon. Weather-related demand uncertainties are not treated explicitly in this forecast.
3. **Loss Factor Assumptions.** The loss factors are important to convert the sales forecast to energy requirements. Xcel Energy uses a historical average loss factor for each legal entity, and assumes it will not change in the future.

## **Forecast Coordination**

Xcel Energy reports its energy and peak demand forecasts to the Mid-Continent Area Power Pool (MAPP) as a requirement of membership. MAPP then combines the forecasts of all its member utilities. Xcel Energy also reports its forecast to the Public Service Commission of Wisconsin as part of its Strategic Energy Assessment (SEA) process. In this process, the Wisconsin portion of the total Xcel Energy system load is combined with other Wisconsin electric utilities to form a statewide Wisconsin forecast.



**Northern States Power Company**  
**Table Xcel-1**  
**System Net Energy Requirements (MWh)**

| <b>Year</b> | <b>Semi-Low<br/>(MWh)</b> | <b>Median<br/>(MWh)</b> | <b>Semi-High<br/>(MWh)</b> |
|-------------|---------------------------|-------------------------|----------------------------|
| 2007        | 46,430,495                | 47,741,896              | 49,040,898                 |
| 2008        | 46,974,450                | 48,299,200              | 49,609,800                 |
| 2009        | 47,496,376                | 48,829,622              | 50,160,240                 |
| 2010        | 48,183,355                | 49,537,523              | 50,886,965                 |
| 2011        | 48,795,782                | 50,169,349              | 51,543,406                 |
| 2012        | 49,365,402                | 50,752,962              | 52,143,546                 |
| 2013        | 49,899,646                | 51,310,171              | 52,720,969                 |
| 2014        | 50,422,921                | 51,857,925              | 53,279,158                 |
| 2015        | 50,967,082                | 52,419,640              | 53,857,050                 |
| 2016        | 51,544,494                | 53,012,928              | 54,487,483                 |
| 2017        | 52,136,162                | 53,629,066              | 55,121,331                 |
| 2018        | 52,753,826                | 54,277,413              | 55,795,109                 |
| 2019        | 53,383,847                | 54,923,440              | 56,466,854                 |
| 2020        | 53,997,069                | 55,564,816              | 57,128,319                 |
| 2021        | 54,579,006                | 56,174,843              | 57,766,619                 |
| 2022        | 55,188,678                | 56,811,606              | 58,417,283                 |
| 2023        | 55,800,739                | 57,452,197              | 59,101,682                 |
| 2024        | 56,412,723                | 58,093,342              | 59,773,872                 |
| 2025        | 57,036,849                | 58,740,630              | 60,466,623                 |

**Average Annual Growth Rate, 2007-2025:**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| <b>% growth:</b> | <b>1.1%</b> | <b>1.2%</b> | <b>1.2%</b> |
|------------------|-------------|-------------|-------------|

Note: Semi-Low and Semi-High Scenarios reflect an 80%/20% Confidence Level

**Northern States Power Company**  
**Table Xcel-2**  
**System Net Summer Peak (MW)**

| <b>Year</b> | <b>Semi-Low<br/>(MW)</b> | <b>Median<br/>(MW)</b> | <b>Semi-High<br/>(MW)</b> |
|-------------|--------------------------|------------------------|---------------------------|
| 2007        | 8,233                    | 8,584                  | 8,930                     |
| 2008        | 8,450                    | 8,810                  | 9,170                     |
| 2009        | 8,569                    | 8,934                  | 9,303                     |
| 2010        | 8,742                    | 9,124                  | 9,498                     |
| 2011        | 8,898                    | 9,296                  | 9,695                     |
| 2012        | 9,077                    | 9,488                  | 9,905                     |
| 2013        | 9,204                    | 9,633                  | 10,057                    |
| 2014        | 9,368                    | 9,813                  | 10,244                    |
| 2015        | 9,529                    | 9,982                  | 10,433                    |
| 2016        | 9,702                    | 10,170                 | 10,639                    |
| 2017        | 9,827                    | 10,315                 | 10,797                    |
| 2018        | 10,004                   | 10,509                 | 11,010                    |
| 2019        | 10,177                   | 10,687                 | 11,198                    |
| 2020        | 10,344                   | 10,878                 | 11,412                    |
| 2021        | 10,473                   | 11,017                 | 11,567                    |
| 2022        | 10,631                   | 11,206                 | 11,766                    |
| 2023        | 10,789                   | 11,381                 | 11,975                    |
| 2024        | 10,972                   | 11,572                 | 12,168                    |
| 2025        | 11,094                   | 11,718                 | 12,343                    |

**Average Annual Growth Rate, 2007-2025:**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| <b>% growth:</b> | <b>1.7%</b> | <b>1.7%</b> | <b>1.8%</b> |
|------------------|-------------|-------------|-------------|

**Note: Semi-Low and Semi-High Scenarios reflect an 80%/20% Confidence Level**

**Northern States Power Company**  
**Table Xcel-2**  
**System Base Summer Peak (MW)**

| <b>Year</b> | <b>Semi-Low<br/>(MW)</b> | <b>Median<br/>(MW)</b> | <b>Semi-High<br/>(MW)</b> |
|-------------|--------------------------|------------------------|---------------------------|
| 2007        | 9,226                    | 9,577                  | 9,923                     |
| 2008        | 9,434                    | 9,794                  | 10,154                    |
| 2009        | 9,582                    | 9,947                  | 10,315                    |
| 2010        | 9,778                    | 10,159                 | 10,533                    |
| 2011        | 9,952                    | 10,350                 | 10,749                    |
| 2012        | 10,132                   | 10,543                 | 10,960                    |
| 2013        | 10,256                   | 10,684                 | 11,109                    |
| 2014        | 10,417                   | 10,862                 | 11,292                    |
| 2015        | 10,574                   | 11,027                 | 11,478                    |
| 2016        | 10,743                   | 11,212                 | 11,681                    |
| 2017        | 10,865                   | 11,353                 | 11,835                    |
| 2018        | 11,039                   | 11,543                 | 12,045                    |
| 2019        | 11,208                   | 11,718                 | 12,230                    |
| 2020        | 11,372                   | 11,906                 | 12,440                    |
| 2021        | 11,498                   | 12,042                 | 12,592                    |
| 2022        | 11,652                   | 12,227                 | 12,787                    |
| 2023        | 11,807                   | 12,399                 | 12,993                    |
| 2024        | 11,987                   | 12,586                 | 13,182                    |
| 2025        | 12,105                   | 12,729                 | 13,354                    |

**Average Annual Growth Rate, 2007-2025:**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| <b>% growth:</b> | <b>1.5%</b> | <b>1.6%</b> | <b>1.6%</b> |
|------------------|-------------|-------------|-------------|

Note: Semi-Low and Semi-High Scenarios reflect an 80%/20% Confidence Level

**Northern States Power Company**  
**Table Xcel-3**  
**System Net Winter Peak (MW)**

| <b>Year</b> | <b>Semi-Low<br/>(MW)</b> | <b>Median<br/>(MW)</b> | <b>Semi-High<br/>(MW)</b> |
|-------------|--------------------------|------------------------|---------------------------|
| 2007        | 6,763                    | 7,069                  | 7,365                     |
| 2008        | 6,832                    | 7,138                  | 7,434                     |
| 2009        | 6,896                    | 7,205                  | 7,505                     |
| 2010        | 6,977                    | 7,292                  | 7,593                     |
| 2011        | 7,052                    | 7,370                  | 7,686                     |
| 2012        | 7,120                    | 7,442                  | 7,757                     |
| 2013        | 7,179                    | 7,511                  | 7,837                     |
| 2014        | 7,248                    | 7,578                  | 7,905                     |
| 2015        | 7,308                    | 7,648                  | 7,975                     |
| 2016        | 7,375                    | 7,720                  | 8,059                     |
| 2017        | 7,446                    | 7,796                  | 8,141                     |
| 2018        | 7,523                    | 7,875                  | 8,220                     |
| 2019        | 7,588                    | 7,953                  | 8,315                     |
| 2020        | 7,663                    | 8,031                  | 8,394                     |
| 2021        | 7,728                    | 8,105                  | 8,477                     |
| 2022        | 7,796                    | 8,182                  | 8,567                     |
| 2023        | 7,867                    | 8,260                  | 8,645                     |
| 2024        | 7,935                    | 8,338                  | 8,728                     |
| 2025        | 8,010                    | 8,417                  | 8,816                     |

**Average Annual Growth Rate, 2007-2025:**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| <b>% growth:</b> | <b>0.9%</b> | <b>1.0%</b> | <b>1.0%</b> |
|------------------|-------------|-------------|-------------|

**Notes:** Winter Peak = MAPP Winter Peak season, 2004 is 2004-2005 winter peak.  
Semi-Low and Semi-High Scenarios reflect an 80%/20% Confidence Level

#### **7610.0400 – Present Facilities**

Following are data sheets on the power plants and generating units connected to and/or serving NSP System requirements.

#### **[SECURITY INFORMATION]**

This information is being submitted separately.

**7610.0410 – Future Facility Additions**  
**7610.0420 – Future Facility Retirements**

Xcel Energy's most recent Resource Plan was filed with the MPUC on November 1, 2004. The MPUC issued an order approving the plan on July 28, 2006, Docket No. E002/RP-04-1752. In its decision, the MPUC issued a number of resource acquisition directives including:

- deploying an additional 1,680 MW of wind resources by 2010 (with at least 500 MW from Community Based Energy Development ("C-BED") projects);
- initiating a processes for acquiring 375 MW of base load capacity by 2015;
- requiring the Company to file for approval of any upgrades to its Sherco, Prairie Island and Monticello generating plants as discussed in the resource plan.

Copies of the MPUC orders in the 2004 Resource Plan docket are attached.

In compliance with the Orders, the Company issued a C-BED Request for Proposal in March 2007; filed an application for a Certificate of Need ("CON") for 375 MW of base load energy on November 1, 2006; and filed a report on its progress of pursuing upgrades at its Sherco, Prairie Island, and Monticello generating facilities.<sup>1</sup> As discussed in the December 31, 2007 filing, the upgrades could result in an increase of up to 400 MW. The Sherco upgrades could result in up to 140 MW of additional base load capacity as well as significant updates to pollution control systems. By mid to late 2007, Xcel Energy expects to complete filings for approval to upgrade the Prairie Island and Monticello nuclear plants. These upgrades could result in 70 MW of additional base load capacity at Monticello and 180 to 190 MW at Prairie Island. All upgrades at the three plants are scheduled to be completed in the 2009 – 2015 timeframe.

In addition to procuring new resources and upgrading existing resources, Xcel Energy is proceeding with the rehabilitation and repowering of Twin Cities Metro Area coal plants pursuant to the Metro Emissions Reduction Program ("MERP"). These voluntary projects, designed to reduce air emissions, were discussed in detail in last years filing. The improvements to the King plant located in Stillwater, Minnesota; the Riverside plant located in Minneapolis, Minnesota; and the High Bridge plant located in St. Paul, Minnesota are expected to increase generating capacity by a total of approximately 297

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<sup>1</sup> On October 18, 2006, the Commission issued a clarifying order indicating the Company must file a status report of its upgrades at the three facilities by December 31, 2006 and must file for approval of the upgrades by September 1, 2007.

MW. These upgrades, as noted in last years filing, are on target to be completed by May 2009. In summary:

*High Bridge*

Location: St. Paul, Minnesota

Retirements: Existing units #5 and #6, approximately 270 MW

Additions: Two new units, approximately 515 MW

Scheduled in-service date: May 2008

*Riverside*

Location: Minneapolis, Minnesota

Retirements: Existing units #7 and #8, approximately 386 MW

Additions: Two new units, approximately 439 MW

Scheduled in-service date: May 2009

*King*

Location: Stillwater, Minnesota

Retirements: None

Additions: Work will result in the restoration of approximately 60 MW to existing unit

Scheduled in-service date: July 2007

Xcel Energy is also proceeding with its acquisition of new wind resources. Due diligence is proceeding on the C-BED proposals received. As a result of Xcel Energy's first C-BED RFP issued in 2005 we have an additional 166 MW of wind energy on our system. On June 26, 2007. The Company filed an application for a Certificate of Need for a proposed Company-owned 100 MW wind farm (Grand Meadow) to be constructed near Austin, Minnesota. It is our goal to have the additional wind resources online by December 31, 2008, in time to take advantage of the federal Production Tax Credit ("PTC"). Xcel Energy also remains committed to having a total of 500 MW of C-BED wind by 2010, subject to certain conditions including the renewal of the PTC.

The Company has no specific plans for additional facility retirements during this reporting period. The condition of Xcel Energy's generating equipment is monitored, and as the age increases, an evaluation of continued operation is periodically performed.

Xcel Energy proposes to fulfill future electric generating resource needs through multiple resource acquisition processes including competitive bidding utility ownership and purchased power agreements. The specific generation technology and location of future generation facilities will be determined by the MPUC through our resource planning process and resource acquisition process.

## 1. Executive Summary

### Introduction

Northern States Power Company d/b/a Xcel Energy (“Xcel Energy” or “Company”) submits to the Minnesota Public Utilities Commission (“MPUC” or “Commission”) our 2004 Resource Plan for consideration and approval. This Plan covers the period 2005-2019, identifies a number of issues and risks that will significantly affect the reliability and economy of electricity, and proposes a path to most effectively meet growing customer needs. We look forward to discussion of this Plan with stakeholders.

As in previous filings, this Plan presents our analysis of customer needs and resource options under a variety of assumptions to help select a robust path for resource acquisition. Unlike other filings, however, this Plan seeks to significantly expand the role of resource planning for our system and proposes a comprehensive, revised process for acquiring needed resources. Given the significant resource need identified in this Plan – over 3,100 MWs, including 1,125 MWs of base load need – it is critical that we implement an effective resource acquisition process. To this end, we present a long-term view of our system needs, seek direction from the Commission on various resource options, propose a comprehensive resource acquisition process, and provide for the contingencies that will inevitably arise.

Thus, Xcel Energy’s 2004 Resource Plan reflects a number of major decisions that are designed to maintain the low-cost, reliable service historically enjoyed by our customers. Specifically, our Plan includes:

- *A new forecast that projects significant need for additional capacity and energy.* (“Department” or “DOC”). This forecast anticipates load growth of 1.6% at the median forecast and 1.83% at the 90% forecast level annually over the planning horizon. It reflects methodology changes discussed with the Minnesota Department of Commerce (“Department,” “DOC).



- *The need for the addition of up to 1,125 MWs of new base load generation by 2015.* This need, coupled with our conclusions regarding the appropriate use of natural gas-fired generation on our system, leads us to expect that coal resources are best suited to meet this need. However, because competitive bidding is not well suited to evaluate coal and large-scale base load resources, changes to our acquisition strategy are needed to ensure we are successful in acquiring these resources.
- *A comprehensive, revised plan for acquiring resources, including contingency plans.* By developing alternative, flexible acquisition strategies, we improve both the effectiveness and efficiency of these efforts and provide better understanding of our expansion plan. Our proposal stems in part from the stakeholder process required by the Commission in the withdrawal of our 2002 Resource Plan (Docket No. E002/RP-02-2065). Its implementation will require that the resource planning process provide a more detailed assessment of need and resource options, allowing for a more focused acquisition process.
- *A plan to relicense and continue operations at the Prairie Island and Monticello nuclear generating stations for an additional 20-year period.* Given the significant need for new resources, retaining the value of existing assets is important. Because our nuclear fleet provides over 1,600 MWs of capacity and emission-free energy to our system, extending their lives is a key component of our overall Plan. Life extension and repowering of other plants in our fleet may also be appropriate over the planning horizon.
- *A plan to meet the Minnesota Renewable Energy Objective ("REO"), as provided by Minn. Stat. 216B.1691.* As that statute provides, renewable resources acquired for the REO are to be consistent with resource planning principles and assured reliability of the system. Our Plan provides for continued

evaluation of these issues over time, thus ensuring our acquisitions are consistent with the statute, and establishes a process for acquisition.

- *An increase of 16.8% to the demand-side management ("DSM") goals required in our 2000 Resource Plan.* Our analysis demonstrates that, given the need for additional base load resources, additional DSM is cost-effective and should be pursued. While the specific programs to achieve these goals need to be developed and approved as part of the Conservation Improvement Program ("CIP"), it is appropriate to establish more aggressive goals in this Plan.

Combined, we think our Plan – continued operation of emission-free nuclear energy, acquisition of base load resources (most likely coal-fired), significant expansion of demand-side management and achievement of the Renewable Energy Objective – strikes the best balance between competing considerations. We welcome discussion of our Plan with the stakeholders.

This Plan provides a comprehensive overview of the issues we expect to face and actions we must take to ensure continued reliable, economic and environmentally sound service to our customers. However, it is also the starting point for decisions that will be finalized in other proceedings, such as the need for additional nuclear fuel storage and the development of base load resources. We believe our Plan presents information important to state policymakers, and introduces a reasonable and effective approach to meeting increasing demand for electric energy within the state.

## Overview

Over the last decade, Xcel Energy has used competitive bidding to secure supply resources. We have relied on that process not only to secure the needed resources, but also to identify the most appropriate mix of resources to meet customer needs. As such, the Resource Plan focused on identifying general need, while the All-Source Bidding process evaluated and selected among the various resource options.

While the concept of all-source bidding is sound, its implementation poses significant challenges. These challenges were particularly evident during our 2001 All-Source Bid effort (Docket No. E002/M-01-1618), which occurred during a time of significant market change and with a wide variety of resources vying for selection. The projects ultimately selected were not in all cases the same as the short-listed projects, and included Company-built generation needed to meet near-term customer demand. Overall, all stakeholders had issues regarding this process, and the Commission directed the Company to have discussions with stakeholders regarding possible improvements.

We have facilitated those stakeholder discussions and believe they were fruitful. In addition, we have considered and assessed the situation ourselves. We believe that, given the size and nature of the need identified in this Plan – including a sizable need for base load resources, which haven't been developed in Minnesota since the late 1980s – significant change in approach is warranted.

Thus, this Plan includes our proposal for a comprehensive, revised approach to resource acquisition. This approach builds on our experience, anticipates future development issues, and considers the input of the Commission and stakeholders. Implementing this approach will require the resource planning process to do more than just identify need; it must also identify more specifically the resource type best suited to that need. In this way, acquisition efforts can be more focused and streamlined, tailored specifically to the unique aspects of various resource types. We believe our approach is important to ensuring that needed resources are developed in a timely and effective manner.

Concurrent with this filing, we are providing a Notice of Changed Circumstance in our 2000 Resource Plan to notify that we intend to begin pursuing our proposed path for base load resource acquisition. We are providing this Notice because, under the terms of that Plan, we planned to acquire any resource over 12 megawatts through competitive bidding. As discussed in our Notice, we believe that pursuing our proposed acquisition plan while consideration of our 2004

application is pending will harm no party and will, in fact, greatly enhance Commission consideration of our Plan.

While our proposed resource acquisition process is a key component of our Plan, evaluation and pursuit of other resources is also critical. Demand-side management and renewable energy offer potential means of supplying customer requirements in a cost-effective and environmentally sound manner. Our analysis indicates that a significant increase in our DSM goals is appropriate and cost-justified; hence, we will pursue them. Likewise, under certain assumptions, implementation of the REO is cost-effective and should be pursued. These components help to balance various resource considerations and play an important role in ensuring our overall Plan is well balanced and robust.

#### **Five-Year Action Plan**

To successfully manage our resources through a period of continued uncertainty and to ensure we have adequate resources available to meet our customers' needs, we propose the following five-year Action Plan:

- *Significantly increase the DSM goals established in the 2000 Resource Plan proceeding, raising them by an aggressive 16.8%. To date, we have been successful in meeting the goals established in previous plans. We believe that there is room to increase these goals to capture potential new cost-effective conservation.*
- *Install sufficient renewables to meet the 1994 Act requirements and the state Renewable Energy Objective, while continuing to evaluate the cost effectiveness of wind in our future Resource Plans. We are committed to installing cost-effective renewables on our system to meet customer demand for environmentally sound energy. Our Plan will meet the requirements of Minnesota Law for the REO and nuclear relicensing.*

- *To permit continued operation of our nuclear plants, obtain NRC license extensions for both the Monticello and Prairie Island Nuclear Generating Plants and Certificates of Need from the Commission for additional spent-fuel storage.* Our analysis shows that relicensing and continued operation of our nuclear fleet will save customers approximately \$1 billion over the 20-year license extension period. We plan to file applications for both relicensing and a certificate of need for our Monticello plant in late 2004/early 2005. We will make similar filings for Prairie Island in 2008.
- *Investigate and pursue repowering as appropriate to retain and maximize the value of our existing fleet.* Our Emissions Reduction Proposal offered a great opportunity for reducing emissions while extending the useful life of important system resources. We will continue to pursue potential repowering projects and propose them for implementation if appropriate. Minnesota Valley is the first likely candidate for such a proposal. We expect to complete our evaluation of such a project early next year.
- *Implement a new resource acquisition process to ensure needed resources are appropriately identified and acquired in a timely, effective, and efficient manner.* Our analysis indicates a base load need that may be best met through new coal resources, and over 2,200 MWs of new gas and wind facilities (nameplate capacity) need to be added over the planning period. We intend to pursue a flexible and thorough acquisition process to ensure these resources are developed. Proposals for Company-built generation will be included in these processes, as we believe such generation may offer advantages.
- *Evaluate, select and obtain all necessary permits for up to 1,125 MWs of new base load resources to come on line between 2011 and 2015.* Because of long lead times for new base load resources, we must begin now to select appropriate resources, negotiate contracts and obtain permits. Given the development issues associated with these resources, we expect construction of any new base load resources to begin late in the five-year Action Plan horizon. Under our

proposed acquisition process, we would pursue multiple options for meeting this base load need, including proposals from developers, Xcel Energy-built generation, and the proposal from Excelsior Energy for an innovative energy facility.

- *Depending on the timing of new base load resources, begin efforts to obtain up to 550 MWs of new peaking resources in 2011 and 2012.* The timing and amount of additional peaking requirements depends on the expected timing of additional base load resources. Fortunately, we can time acquisition of peaking resources to bridge any temporary shortfall. If we are able to obtain new base resources prior to 2013, fewer new peaking resources will be required early in the next decade. Nonetheless, given our experience with resource acquisition, we believe it is important to commence the process in time to allow sufficient time for development.
- *Continue to closely monitor and manage the transition to new market and regulatory structures.* On March 1, 2005 the Midwest Independent System Operator (“MISO”) plans to begin operation of the Midwest Market, a wholesale market for electricity based on locational marginal pricing (“LMP”). As we gain experience with the operation of the market, the Company may change the way we plan for new facilities to meet our customers’ needs. However, given uncertainty regarding this market, we have not attempted to model its impacts in this Plan. We will keep the Commission informed throughout the planning period of our experiences with the new market and any resulting needed adjustments to our plans and operations.
- *Continue and support efforts to ensure that sufficient transmission resources are available to get needed generation to load.* While new regulatory requirements separate generation from transmission, both are needed to serve customer needs. Our experience with bidding demonstrates the significant influence transmission – or lack thereof – has on our resource selection. Given the significant need projected for the planning period, it is important that

adequate transmission is accessible. We plan to continue our advocacy before state and federal regulatory bodies to encourage transmission planning and investment. In addition, we support activities by Xcel Energy's transmission department to pursue in cooperation with other Minnesota utilities a comprehensive plan for needed Minnesota transmission projects. This undertaking, called "CAP-X 2020," should help ensure a robust transmission network to reliably meet projected needs.

While these actions seek to implement our preferred course, we recognize the uncertainty over whether all components will be approved and successfully accomplished. Therefore, we have also developed plans to help hedge this risk, making available options that will allow us to best meet our customers' needs. These plans include:

- *If continued operation of our nuclear plants is not the state's preferred option, immediately begin resource acquisition for up to 700 MW of peaking and 400 MW of intermediate capacity and energy for installation in 2011 and 2012. Immediately begin evaluation and selection process for up to 1,600 MW of additional base load resources to come on line in the 2011 – 2015 timeframe.* If Monticello and Prairie Island are required to shut down, Xcel Energy will need to immediately replace the capacity and energy supplied from those units. While it is unlikely that we would have a base load resource option available to replace Monticello as early as 2011, one strategy would be to bridge the gap with peaking resources until new base load facilities can be brought on line. Given the time frame for replacing the Monticello plant, it is likely that Xcel Energy would need to participate in the construction of facilities for contingency replacement.
- *If we are unable to select, contract for or obtain permits for new base load resources in a timely fashion, begin resource acquisition for new intermediate resources to be on line by 2012.* As discussed in this Plan, we anticipate that our next base load resource will be either a solid fuel or a hydroelectric facility. If we were unable to receive permission to construct or contract for such a facility, an

alternative resource would be a natural gas-fired intermediate facility. Given the time frames for the base load need, it is likely that Xcel Energy would need to participate in the construction of facilities to meet this contingency.

- *If we are unable to meet the aggressive demand-side management goals indicated in this Plan, begin resource acquisition for new peaking resources to meet the amount of DSM that will not be realized as soon as the shortfall is apparent.* While we will make every effort to achieve our DSM goals, we recognize that even our most aggressive efforts may fall short. In that case, we will be poised to use our targeted bidding process to acquire sufficient peaking resources to address any shortfall.
- *Conduct periodic assessments to consider the combined impacts of the many events that will be occurring on our system.* As always, we will continue to carefully monitor developments affecting our system. To the extent that we need to respond to a development in a way not addressed by this Resource Plan, we will file with the Commission under Minn. Rule 7543.0500, Subd.5 for a notice of changed circumstance. Careful monitoring and prompt action will be required to ensure we successfully manage resources during this period of continuing market development and change.

We recognize that others may view these issues differently and come to different conclusions. We welcome the opportunity to engage in a dialogue on these issues and work toward ensuring continued reliable, economical and environmentally sound energy for our customers.

### Chapter Summaries

To assist in understanding the key components of our proposed Resource Plan, we provide the following summaries of each chapter of this filing.



### *Forecast and Resource Needs*

A resource plan begins with a projection of customer demand for capacity and energy over the planning horizon. This chapter outlines our methods and results of this forecasting. In it, we discuss the reflection of various methodology changes discussed with the Department from a prior proceeding, and the need to move to a 90% forecast confidence level for the development of our Plan to ensure that sufficient capacity is available to meet customer needs. Our forecast for energy and capacity over the planning period is as follows:

**Figure 1-1**  
**Xcel Energy Net Energy (Mwh)**

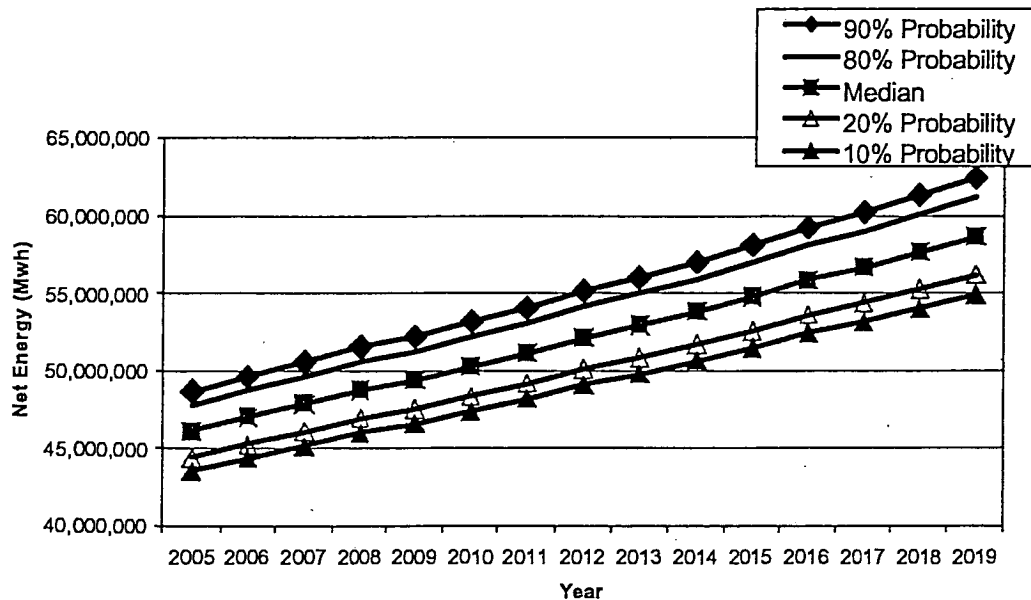
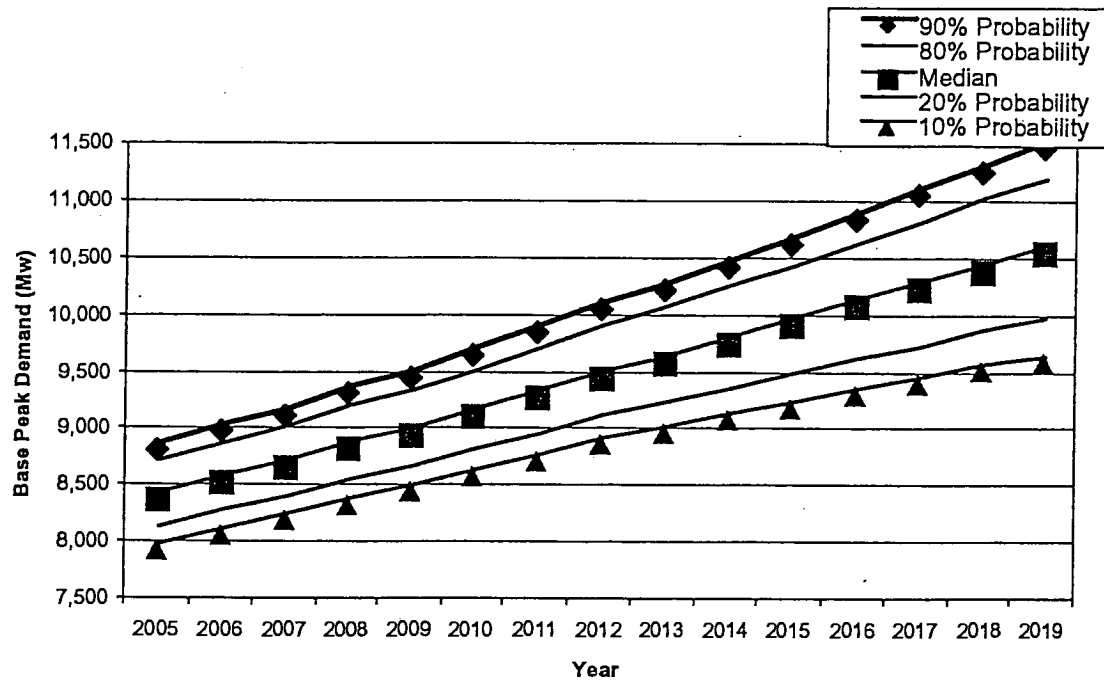
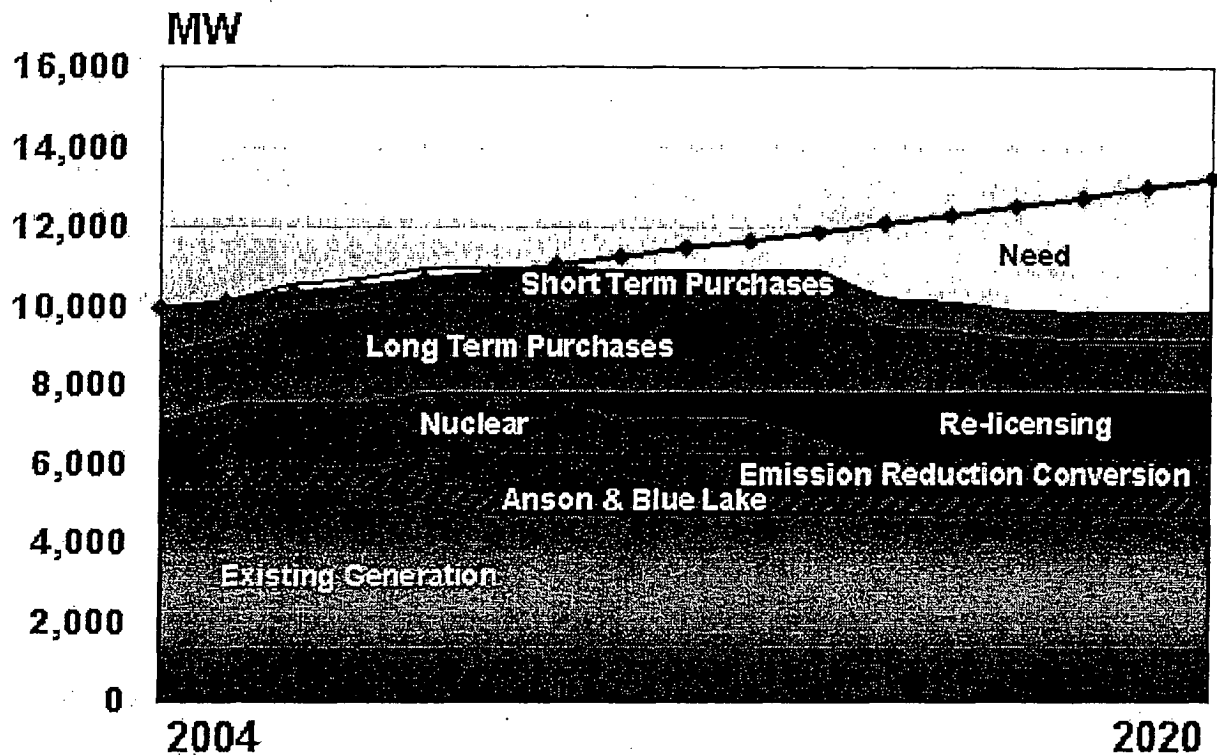


Figure 1-2  
Xcel Energy Net Summer Peak Demand (Mw)



In addition, we compare the forecasted need to our current capabilities, identifying the overall resource need to be met over the planning horizon:

Figure 1-3  
Requirements and Resources 2004-2019



We anticipate the need for additional generating resources starting in 2010, growing to 1,830 MWs by 2015 and 3,100 MWs by 2019.

#### *Modeling and Preferred Plan*

Sound analysis is critical to developing an appropriate Plan. In this chapter, we present our analytical methods and approach, identifying the various risks posed during the planning horizon and our comparative analyses to reflect them.

We began our modeling using a number of assumptions regarding the forecast, existing resources, renewable energy, and externalities. We then modeled a number of scenarios varying these assumptions to test sensitivities. Based on this analysis, we adopted the following Preferred Plan:

| <b>Table 1-4</b><br><b>Incremental Resource Additions</b><br><b>Preferred Plan – No Externalities</b><br><b>Capacity (MW)</b> |              |              |              |                              |            |                |
|-------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|------------------------------|------------|----------------|
|                                                                                                                               | Base Load    | Intermediate | Peaking      | Wind (Nameplate/ Accredited) | DSM*       | Annual Total** |
| 2005                                                                                                                          |              |              |              |                              |            |                |
| 2006                                                                                                                          |              |              |              |                              | 2          | 2              |
| 2007                                                                                                                          |              |              |              |                              | 14         | 14             |
| 2008                                                                                                                          |              |              |              |                              | 18         | 18             |
| 2009                                                                                                                          |              |              |              |                              | 15         | 15             |
| 2010                                                                                                                          |              |              |              |                              | 14         | 14             |
| 2011                                                                                                                          |              |              | 272          | 80 / 11                      | 13         | 365            |
| 2012                                                                                                                          |              |              | 136          | 160 / 22                     | 13         | 309            |
| 2013                                                                                                                          | 375          |              |              | 80 / 11                      | 13         | 468            |
| 2014                                                                                                                          |              |              |              | 160 / 22                     | 14         | 174            |
| 2015                                                                                                                          | 750          |              | 136          |                              | 19         | 905            |
| 2016                                                                                                                          |              |              | 272          | 80 / 11                      | 20         | 372            |
| 2017                                                                                                                          |              |              | 408          |                              | 20         | 428            |
| 2018                                                                                                                          |              |              | 272          |                              | 18         | 290            |
| 2019                                                                                                                          |              | 213          |              |                              | 16         | 229            |
| <b>Total</b>                                                                                                                  | <b>1,125</b> | <b>213</b>   | <b>1,496</b> | <b>560 / 76</b>              | <b>209</b> | <b>3,603</b>   |
| * DSM listed is in addition to currently ordered goals<br>** using nameplate wind                                             |              |              |              |                              |            |                |

As discussed further in this chapter, the Present Value Revenue Requirements (“PVRR”) of the Preferred Plan is slightly lower than the PVRR of our Reference Case:

| <b>Table 1-5</b><br><b>Preferred Plan</b><br><b>2004 Resource Plan – Study Timeframe 2004 – 2033</b><br><b>PVRR in 2004 \$000,000 (millions of dollars)</b> |                  |                   |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------|--------------------|
|                                                                                                                                                             | No Externalities | Low Externalities | High Externalities |
| Reference Case                                                                                                                                              | 29,420           | 29,900            | 31,730             |
| Preferred Plan                                                                                                                                              | 29,010           | 29,485            | 31,285             |

#### *Base Load Need Assessment*

Given the significant need for additional base load resources over the planning period, we undertook more extensive evaluation of both the need and alternative ways to meet that need. In this chapter, we discuss key issues associated with developing a Resource Plan from this analysis, including such considerations as the policy issues associated with coal.

Considering the unique characteristics of base load resources, we identified the following criteria to assess which type of resource appears best suited to meet our identified resource need:

- Reasonable Cost,
- Reliable,
- Environmental impacts,
- Flexible,
- Commercial operation, and
- Financial integrity.

We ran several scenarios that inserted various resources into the plan to meet the base load need. We considered traditional pulverized coal, no-coal scenarios,

renewables scenarios, and scenarios utilizing relatively new technologies such as IGCC. The resulting PVRRs of the scenarios are shown below:

| <b>Table 1-6</b><br><b>No Coal Study Results from Strategist</b><br><b>2004 Resource Plan – Study Timeframe 2004 – 2033</b><br><b>PVRR in 2004 \$000,000 (millions of dollars)</b> |                     |                      |                       |                        |                        |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|-----------------------|------------------------|------------------------|-----------------------|
|                                                                                                                                                                                    | No<br>Externalities | Low<br>Externalities | High<br>Externalities | High<br>Sigma<br>1 Gas | High<br>Sigma<br>2 Gas | Low<br>Sigma<br>1 Gas |
| Reference Case                                                                                                                                                                     | 29,420              | 29,900               | 31,730                | 30,085                 | 30,715                 | 28,670                |
| Preferred Plan                                                                                                                                                                     | 29,010              | 29,485               | 31,285                |                        |                        |                       |
| No New Coal Case                                                                                                                                                                   | 29,540              | 30,010               | 31,740                | 30,580                 | 31,810                 | 28,670                |
| Advanced CC                                                                                                                                                                        | 29,525              |                      |                       | 30,300                 |                        |                       |
| IGCC                                                                                                                                                                               | 29,725              | 30,200               | 32,030                |                        |                        |                       |
| 50% Renewables – biomass,                                                                                                                                                          | 30,460              | 30,930               | 32,695                |                        |                        |                       |
| 75% Renewables – biomass                                                                                                                                                           | 32,770              | 33,220               | 34,825                |                        |                        |                       |

Our economic analysis shows that under today's conditions, the most economic base load option for Xcel Energy may be a pulverized coal plant. Because this preliminary conclusion is sensitive to a variety of issues, such as costs and environmental assumptions, it is important that we continue to evaluate possible viable alternatives.

#### *Resource Acquisition*

Xcel Energy has previously employed all-source competitive bidding to select and acquire new supply resources. The analysis required for this approach is complex and lengthy, and most recently resulted in difficulties acquiring resources given the

backdrop of significant market change. This chapter contains our proposal for a comprehensive, revised process for acquiring needed resources. Our proposal includes a targeted and streamlined bidding process for renewable and peaking/intermediate resources, and a multi-pronged process for developing base load resources. While we designed our proposal to be flexible and allow us to anticipate and address unexpected situations as they arise, we also propose a contingency plan to ensure we have the tools available to acquire resources – including Company-built generation – as needed to meet our obligation to serve.

The heart of our resource acquisition proposal is to use the resource plan as a tool to more closely identify the types of needs that the Company expects to have in the future, be they peaking, intermediate, renewable or base load. Specific, targeted Requests for Proposals (“RFPs”) will be developed for peaking, intermediate and renewables needs, thus narrowing the focus of the bids and increasing the opportunities to achieve successful outcomes in a timely fashion.

For base load needs, Xcel Energy proposes a multi-pronged approach that will explore development by third parties, Xcel Energy-built projects, and the “innovative energy project” proposed by Excelsior Energy. We believe that, by evaluating a number of resources on parallel tracks, this approach will ensure that we are able to select the best base resource and bring it on line in time to meet customers’ needs.

Xcel Energy also requires flexibility in its processes to meet contingencies when selected resources, despite everyone’s best efforts, are unable to be developed or are delayed. We propose a contingency plan that preserves the ability to do whatever needed to meet our obligation to serve customers -- including constructing our own facilities -- subject to appropriate regulatory approvals.

### *Demand-Side Management*

This chapter presents our analysis of the cost-effectiveness of additional DSM. While we have been meeting the goals established in our 2000 Resource Plan, our

updated analysis indicate that even more DSM is cost-effective and should be pursued. As a result of this analysis, we propose to increase our capacity reduction goals by 12% and our energy savings goals by more than 16% over the same time period reflected by the 2000 goals. To achieve these aggressive goals, we believe that we will need to modify our approach to delivering conservation programs. We have not yet fully determined the feasibility achieving these goals or developed an implementation plan, but we believe it appropriate to work to achieve these goals over the planning period.

#### *Existing Fossil-Fuel Resources*

Given the significant need for new resources identified by our Plan, it is critical to retain and maximize the value of our existing fleet. This chapter provides an overview of our existing fossil-fuel plants, discusses their reflection in our analysis, and provides information regarding our on-going evaluation of repowering. Our current expectation is that we will continue to operate all of our existing resources throughout the planning period. Some of these resources are good candidates for refurbishment or repowering. We will continue to evaluate these issues and will bring any proposals to the Commission as they become more fully developed. Our Minnesota Valley Plant in Granite Falls, Minnesota is the first potential candidate for repowering.

#### *Nuclear Generation*

Retaining the benefits of our nuclear fleet is a key component of our Plan. This chapter presents our analysis of the value of life extension of these facilities for our customers, assesses various replacement alternatives, and outlines our plan for pursuing relicensing by the Nuclear Regulatory Commission and additional storage capacity through a Certificate of Need filing with the MPUC.

Our analysis shows that relicensing our nuclear facilities and operating them for another 20 years results in nearly one billion dollars in savings to our customers over a 30 year period, even considering the need for additional investments to keep the facilities in top working condition and to provide additional spent nuclear fuel



storage. Our current Action Plan has us filing our Certificate of Need with the Commission and Relicensing Application with the NRC for Monticello in late 2004 and early 2005, and we will make similar filings for Prairie Island in 2008.

### *Renewable Energy*

This Plan represented our first since the 2003 Minnesota Legislature adopted significant changes to the REO statute. While we are currently meeting the Objective, we need to acquire additional renewable resources in 2011 to continue to meet it over the planning period. This chapter discusses our analysis of the impact of meeting the REO and outlines various issues that will be important to determining its future application.

Our Plan contemplates the addition of 560 MWs of nameplate wind between 2011 and 2016. To formulate the costs for this scenario, we assumed that the Federal Production Tax Credit for wind would not be available after 2010, but that improvements in technology would reduce the cost of wind in 2010 and again in 2015.

By implementing the REO, Xcel Energy will achieve wind penetrations exceeding 16% of peak load. The recent Wind Integration Study, which examined some of the additional costs of wind for penetrations up to 15%, suggests that an adder of at least \$5.00 should be included to reflect the additional costs wind imposes on the operating system. Xcel Energy is continuing this study by looking at the costs of even higher penetrations of wind on our system. When this analysis is complete, we will revisit our Plan. We remain committed to installing as many cost effective renewables on our system as possible while continuing to maintain the reliable operation of the system.

### *Environment*

Environmental regulation significantly affects our industry, and possible changes would influence our resource selection. This chapter presents a status report on

environmental regulations and our compliance with various Commission Orders regarding environmental issues.

### *Transmission*

Our experience in the bidding process highlights the critical influence transmission – or lack thereof – has on resource acquisition. This chapter provides an overview of current issues and activities related to the provision of transmission service.

Detailed transmission planning now takes place in the Minnesota Transmission Planning Process, which takes place every two years. In this Plan, we consider the development of new transmission to accommodate the additional generating resources included in the plan. Bringing transmission on line in time to serve new generation involves close coordination with the Midwest Independent System Operator (“MISO”), which performs the required studies and approves interconnection and transmission service.

In 2004 Xcel Energy embarked on a project with other transmission owners in the state to develop a vision for transmission infrastructure investments needed in Minnesota during the next 15 years. The companies are calling the effort Minnesota CAP-X 2020, short for Capital Expenditures by the year 2020. The CAP-X 2020 study will determine the projected transmission facilities needed to serve customer demand levels in 2020 in and around Minnesota from projected generation resources. It also will look at ways to relieve transmission congestion.

### *Compliance*

This chapter provides a matrix listing of various requirements stemming from other proceedings that are addressed in this Plan. In addition, we provide the information required regarding our monitoring of Canada’s Northern Flood Agreement (“NFA”), as required by the Commission’s Order approving our power purchase agreement with Manitoba Hydro (Docket No. E002/M-99-888). We also provide information in compliance with the Commission’s Order in the Buffalo Ridge transmission Certificate of Need proceeding, Docket No, E002/CN-01-1958

and certain nuclear requirements established by the 2003 Act. The Company is committed to fully complying with all requirements.

Finally, we include the discussion regarding the appropriate level of natural gas on our system that was required by the Commission in the withdrawal of our 2002 Resource Plan. Natural gas can bring great benefits to a utility's portfolio due to its lower capital costs and operating flexibility, particularly when used to meet peaking or intermediate needs. However, gas prices have recently risen nearly 15% and have become quite volatile. Xcel Energy's evaluation of natural gas on our system accounts for these factors. While we currently generate about five percent of our energy from natural gas, by 2015 we expect that amount to grow to about 10%–15%. This amount is lower natural gas penetration than in other regions of the country. Nonetheless, Xcel Energy remains sensitive to Minnesota's particular relating to natural gas as a home heating fuel. We will continue to accurately reflect the natural gas situation in our models and keep the Commission updated as the gas situation changes in the future.

### **Conclusion**

We face significant challenges in meeting our customers' projected needs over the planning horizon. We believe our experience of recent years is instructive in helping us craft new approaches to evaluating and meeting that need. Given the sizable amount of new resources required in this period, it is critical that we have an effective, flexible means of acquiring resources. It is likewise critical that we maximize the value of existing resources -- including our nuclear fleet -- and that we aggressively pursue appropriate investments in DSM and renewables.

Our Plan outlines a comprehensive approach to addressing these issues. We believe we have struck an appropriate balance among competing considerations. We welcome consideration of our Plan, and look forward to dialogue with stakeholders.



414 Nicollet Mall  
Minneapolis, MN 55402

November 1, 2004

Burl W Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101-2147

RE: NOTICE OF CHANGED CIRCUMSTANCE  
DOCKET NO E002/RP-00-787

Dear Dr Haar:

Pursuant to Minn Rule 7843.0500, subpart 5, Northern States Power Company d/b/a Xcel Energy ("Xcel Energy," "Company") provides this Notice of Change of Circumstances Affecting Resource Planning. Concurrent with this Notice, we are filing our 2004 Resource Plan, which outlines our resource needs and plans for the period 2004 – 2019.

We provide this Notice because, under the terms of our currently approved Resource Plan (stemming from our 2000 application), we planned to acquire any resource over 12 MWs through competitive bidding. Our 2004 Resource Plan outlines a new approach to resources. With this letter, we provide notice of our intention to begin pursuing our proposed acquisition plan pending consideration of our 2004 application. We believe that no party will be harmed by this approach; indeed, as discussed below, we believe the Commission's consideration of our 2004 Resource Plan will be greatly enhanced by this approach.

### Background

The Minnesota Public Utilities Commission ("MPUC," "Commission") approved our current plan to acquire nearly all resources through competitive bidding in the context of our 2000 Resource Plan. While we filed a 2002 Plan

(Docket No. E002/RP-02-2065), we subsequently proposed to withdraw it, given its primary focus on nuclear issues and the 2003 Minnesota Legislature's actions affecting those issues. The Commission approved the withdrawal of this Plan in its March 9, 2004 Order.

The Commission and stakeholders had a number of years of experience with the bidding process at the time our withdrawal request was considered. Parties had raised concerns regarding the timeliness and effectiveness of our implementation of the bidding process, and the Commission had expressed frustration when the ultimate resources presented for approval differed from those anticipated during the bidding process.

Having explored these concerns in some limited ways, the Commission required a stakeholder process as a condition of approving our withdrawal of the 2002 Resource Plan. Specifically, this process was to re-examine the role of competitive bidding and the use of this process in acquiring base load and other resources. We led this stakeholder process during the spring and summer; the process concluded in September 2004.

Based on our experience, the input of stakeholders, and our anticipation of future developments, we believe our resource acquisition process needs to be significantly modified to ensure the timely, effective, and efficient acquisition of needed resources. Our 2004 Resource Plan application proposes a modified approach that includes a more focused bidding process for acquiring renewable and peaking/intermediate resources and a flexible, multi-pronged approach for acquiring base load resources.

#### **Rationale**

We believe it is both necessary and appropriate to begin implementation of the proposed process now. Our 2004 Resource Plan identifies significant base load need in the 2011 – 2115 period. To ensure resources are developed in time to meet this need, we believe it is appropriate to begin exploring options in earnest. Since no resources will be acquired prior to a Commission decision on our 2004 Plan, (and no resource would be acquired without Commission approval regardless), we believe there is no harm in initiating this exploration now.

Indeed, we believe that further development of potential options to meet the anticipated base load need would greatly inform the Commission's decision on our 2004 Resource Plan. Planning and acquisition activities do not begin or stop at any point in time; rather, they are ongoing and should inform each

other. We believe that our exploration of potential base load projects will assist the Commission and stakeholders when considering our overall Plan. In the event the Commission decides at the conclusion of our 2004 Resource Plan to require competitive bidding for all resources, the work performed in the interim will greatly assist us in the preparation of the Request for Proposals and the evaluation of bids. Consequently, we believe our proposal to begin this exploration now outside of the formal bidding process is appropriate

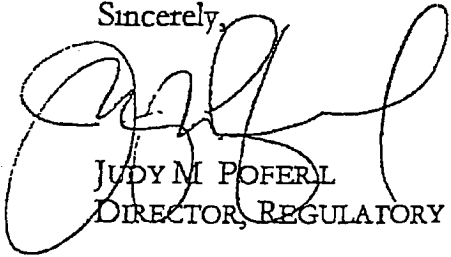
#### Service

We provide the Commission with the original and 15 copies of this Notice. We have also served copies on the Department of Commerce, the Office of the Attorney General – Residential Utilities Division, as well as parties to our 2000 and 2002 resource plan proceedings. Our service list is attached.

In addition, we will serve copies of our 2004 Resource Plan application on this same service list. This application provides detailed discussion of our proposed acquisition process and the identified resource needs. Parties can refer to this Plan for further details of our proposals.

Feel free to contact me at (612) 330-6125 if you have any questions regarding this filing.

Sincerely,



JUDY M. POFERT  
DIRECTOR, REGULATORY ADMINISTRATION

Enclosure

c: Service List

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendraye  
Marshall Johnson  
Ken Nickolai  
Thomas Pugh  
Phyllis A. Reha

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of Northern States Power  
Company d/b/a Xcel Energy's Application for  
Approval of its 2005-2019 Resource Plan

ISSUE DATE: July 28, 2006

DOCKET NO. E-002/RP-04-1752

ORDER APPROVING RESOURCE PLAN AS  
MODIFIED, FINDING COMPLIANCE WITH  
RENEWABLE ENERGY OBJECTIVES  
STATUTE, AND SETTING FILING  
REQUIREMENTS

**PROCEDURAL HISTORY**

On November 1, 2004, Northern States Power Company d/b/a Xcel Energy (Xcel) made its 2004 resource plan filing, which had four major components: (1) its 2004 resource plan, covering the fifteen-year planning period from 2005 through 2019; (2) its proposal to revise its procedures for securing new generation through competitive bidding and other market-based, competitive-procurement processes; (3) its report on its progress toward meeting its renewable energy objectives under Minn. Stat. § 216B.1691; and (4) its report on the implementation of the Northern Flood Agreement, an agreement between three Canadian governmental entities and five Cree Nations affected by a massive hydroelectric project from which Xcel purchases a significant amount of summertime energy.

The following persons and organizations filed comments on the Company's filings:

- Minnesota Department of Commerce (the Department)
- Izaak Walton League of America – Midwest Office, Minnesotans for an Energy-Efficient Economy, Union of Concerned Scientists, and Minnesota Center for Environmental Advocacy, filing jointly ("Joint Environmental Intervenors")
- LS Power Associates, L.P.
- Excelsior Energy Inc.
- Gascoyne Project
- North Dakota Industrial Commission

- Calpine Corporation
- Gerdau Ameristeel
- The Minnesota Project
- Metropolitan Counties Energy Task Force
- Minnesota Chamber of Commerce
- North American Water Office
- Sierra Club North Star Chapter
- Green Institute
- Ms. Carol A. Overland
- Senator Ellen R. Anderson
- Communities United for Responsible Energy
- Displaced Residents of South Indian Lake
- Tataskweyak Cree Nation, also known as Split Lake Cree First Nation
- Nisichawayasihk Cree Nation
- Pimicikamak Cree Nation
- Minnesota Witness for Environmental Justice
- University of Minnesota Human Rights Center and the JustEnergy Program of Minnesotans for an Energy-Efficient Economy, filing jointly
- Manitoba Hydro
- Government of Manitoba

On May 31, 2006, after several rounds of stakeholder comments, extensive discovery, briefing, and oral argument, the Commission issued an order acting on the Company's proposal to revise its competitive resource-procurement processes.<sup>1</sup> The order adopted a modified version of the Company's proposal.

On June 13, 2006, the Commission heard oral argument on the two remaining parts of the Company's filing: the resource plan and the report on Company compliance with the renewable energy objectives statute. On June 15, 2006, the Commission met to decide those issues. Having reviewed the entire record herein and having heard the arguments of the parties, the Commission makes the following findings, conclusions, and order.

## **FINDINGS AND CONCLUSIONS**

### ***The Company's Renewable Energy Objectives Filing***

#### **I. Introduction and Factual Background**

In 2001, the Minnesota Legislature passed Minn. Stat. § 216B.1691, setting renewable energy objectives for Minnesota's investor-owned electric utilities, generation and transmission cooperatives, and municipal power agencies. The statute required these utilities, cooperatives, and

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<sup>1</sup> Order Establishing Resource Acquisition Process, Establishing Bidding Process Under Minn. Stat. § 216B.2422, Subd. 5, and Requiring Compliance Filing, this docket.



power agencies (hereinafter "utilities") to make good faith efforts to generate or otherwise secure enough electricity from qualifying renewable energy technologies to represent 10% of total retail electric sales by the year 2015

In 2003, the Legislature amended the statute to require the Commission to supervise and facilitate these good faith efforts. Among other things, the 2003 amendments required the Commission to issue orders implementing the statute and detailing what utilities must do to demonstrate compliance. The Commission has so far issued four general orders under the statute.<sup>2</sup>

The 2003 amendments also placed special responsibilities on Xcel based on its status as the state's only nuclear utility and the owner of the Prairie Island nuclear plant.<sup>3</sup> These responsibilities are summarized below:

- (1) For Xcel, the renewable energy objectives are not just objectives but requirements, subject to the resource planning and least-cost planning requirements of Minn. Stat. § 216B 2422, barring a demonstration that meeting them would jeopardize system reliability.
- (2) By 2010, Xcel must deploy 300 megawatts of nameplate wind capacity above the amount already required by Minnesota law and Commission order as of May 1, 2003, with at least 100 megawatts purchased from wind facilities of two megawatts or less that are ineligible for production incentive payments under Minn. Stat. § 216C 41. The Company may not own, construct, or operate more than 100 of the total 300 megawatts required, and must strive for intrastate geographic diversity in acquiring them, consistent with the findings of the wind engineering study commissioned by the 2003 Legislature.
- (3) Xcel must enter into a purchased power agreement by January 1, 2004 for ten to 20 megawatts of biomass generation from a project described in Minn. Stat. § 216B 2424, subd. 5. This requirement was the subject of a separate docket.<sup>4</sup>

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<sup>2</sup> See Commission orders of June 1, 2004, August 13, 2004, and October 19, 2004 in docket E-999/CI-03-869, *In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. § 216B 1691*, and Commission order of February 21, 2006 in docket E-999/CI-04-1616, *In the Matter of a Commission Investigation into a Multi-state Tracking and Trading System for Renewable Energy Credits*.

<sup>3</sup> Minn. Stat. 216B.1691, subd. 6.

<sup>4</sup> *In the Matter of the Requirement Under Minnesota Statutes 216B 1691, Subdivision 6 (c) for Northern States Power Company d/b/a Xcel Energy to Enter into a Purchased Power Agreement*, docket number E-002/CI-03-2044.

Under the renewable energy objectives statute and the Commission orders implementing it, utilities must file biennial reports on their compliance status, compliance efforts, and future plans for compliance. These biennial filings are to be made with their biennial resource plan filings whenever possible, as Xcel did in this case.<sup>5</sup>

## II. Commission Action

### A. Summary of Commission Action

In the course of this proceeding, the Company and the other stakeholders found common ground on most issues regarding the Company's responsibilities under the renewable energy objectives statute. The Commission concurs with the stakeholders on these issues.

Of the issues that remain contested, none require resolution before the Company's next biennial filing, when two years' additional experience with the statute and up-to-date data on load characteristics, system configuration, and transmission capabilities should ensure a more informed decision than can currently be made.

These findings are explained below.

### B. Xcel-Specific Standards Unnecessary

As discussed earlier, Xcel, as a nuclear utility and the owner of the Prairie Island nuclear plant, has special responsibilities under the renewable energy objectives statute. Stakeholders debated whether the Commission should develop special compliance standards for Xcel or apply the general criteria and standards established in the industry-wide orders issued under the statute.<sup>6</sup>

The Commission concurs with the Department that the criteria and standards set in the industry-wide orders for determining compliance with the renewable energy objectives statute are equally helpful and applicable in determining Xcel's compliance. The industry-wide orders basically identify the factors that go into determining compliance; they do not attempt to quantify how those factors should be weighed, since the statutory standard is "good faith efforts," and assessing good faith requires a holistic, not a mechanical, approach.

The factors identified in the industry-wide orders are equally applicable to Xcel and clearly provide a workable analytical framework. While these factors may be weighed differently in analyzing compliance with *requirements*, as opposed to *objectives*, they remain sound and helpful as analytical categories. At this point, at least, there is no need to refine the criteria and standards of the industry-wide orders to determine exactly how they will be applied to Xcel.

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<sup>5</sup> Minn. Stat. § 216B.1691, subd. 3.

<sup>6</sup> See Commission orders of June 1, 2004, August 13, 2004, and October 19, 2004 in docket E-999/CI-03-869, *In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. § 216B.1691*.

## **C. Additional Wind Generation Required**

### **1. 1,680 Megawatts Over Planning Period**

In the course of this proceeding, Xcel determined that it could, in fact, expand its reliance on wind generation by 1,680 megawatts over the 15-year planning period, as recommended by the Department and the Joint Environmental Intervenors. The Company also committed to adding 300 megawatts of wind under the new community-based, energy-development (C-BED) program by 2007, and a total of 500 megawatts of C-BED wind by 2010.

The Commission concurs in these decisions, which both improve the Company's compliance status under the renewable energy objectives statute and serve the public interest as defined by the Public Utilities Act.

Increased reliance on wind generation is a cornerstone of Minnesota energy policy. Not only has the Legislature forbidden the construction of non-renewable generation and associated transmission facilities unless renewable generation is too costly or impractical,<sup>7</sup> but it has designated wind and solar resources as first choice fuels for future generation.<sup>8</sup> The decision to add 1,680 megawatts of wind generation over the planning period is a sound one and will be required.

### **2. The 300 Wind Megawatts Explicitly Required by Statute**

A related issue debated by the parties was whether the 300 megawatts of nameplate wind capacity required in Minn. Stat. § 216B.1691, subd. 6 (a) counted toward Xcel's renewable energy objectives obligation or constituted an additional, unrelated obligation. That statutory-interpretation issue need not be decided today and will therefore be deferred.

First, Xcel may acquire enough wind generation to meet its obligation without counting the 300 megawatts, making a decision on the issue unnecessary. Second, if and when a decision is required, the Commission, Company, and stakeholders will have gained additional experience with the statute and its application, ensuring a more informed decision.

Finally, whether these 300 megawatts are countable under the statute or not, it is important to facilitate their prompt deployment and to secure stakeholder input on how best to achieve the statutory goals of geographical diversity and encouraging small wind development.

The Commission will therefore require the Company to file, within 120 days of this Order, as a supplement to its 2005-2019 resource plan, a report detailing its plan for complying with Minn. Stat. § 216B.1691, subd. 6 (a). Besides outlining its compliance plan, this report will describe stakeholder input in developing the plan, state how many of the 300 megawatts are expected to come from the new, community-based, energy-development (C-BED) projects authorized under Minn. Stat. § 216B.1612, identify the geographic areas of the state in which the energy will be generated, and address related transmission issues.

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<sup>7</sup> Minn. Stat. § 216B.243, subd. 3a.

<sup>8</sup> Minn. Stat. § 216C.051, subd. 7 (c).

Such filings will become routine in the future, since Minn Stat § 216B 1612, subd 5 (b) requires utilities to include in future resource plans, reports on their efforts to buy C-BED power, a list of C-BED projects under contract, and the total amount of C-BED energy purchased

The Commission will also require the compliance filing to update the Company's wind deployment schedule

#### **D. Current Compliance**

Compliance with the renewable energy objectives statute is an ongoing process, not an event, but at present – and at least through 2006 – Xcel is in compliance. The Company is clearly, substantially on track to meet the statutory requirement that by 2015 it generate 10% of retail sales with eligible renewable technologies, including specified percentages of biomass technologies.

This finding, of course, does not imply any finding that particular generation projects are countable under the statute; it is a general finding that the plan filed by the Company demonstrates compliance, subject to confirmation of individual project eligibility through normal regulatory processes

#### **E. Vintage Allocation, Fixed Allocation Factor Adopted**

Xcel, like many utilities subject to the renewable energy objectives statute, operates in more than one state, raising the issue of how to allocate the Company's renewable generation between states. Clearly, it is important to avoid the double-counting that would result from permitting utilities to count the same renewable megawatts toward the renewable generation requirement of each state in which they operate. Equally clearly, it is important to avoid forcing utilities to acquire the amount of renewable generation that would be necessary if every state had the same renewable requirement as Minnesota.

To avoid both pitfalls, the Department has long supported the "vintage" allocation method. Under that method, generation from renewable facilities that were operating prior to the statute's 2001 enactment are considered system resources and allocated to all jurisdictions based on jurisdictional sales. Renewable generating facilities that began operating after the statute was enacted, however, can be allocated to Minnesota alone, if the utility demonstrates that they were developed to comply with the Minnesota statute and that they are not being counted toward any other jurisdiction's renewable energy requirements.

A related issue, in allocating system resources between jurisdictions based on jurisdictional sales, is whether to use a fixed allocator, based on average sales, or a variable allocator, tracking actual sales. The Department recommended a fixed allocator, for purposes of certainty and efficiency. The Company's filing used the vintage allocation method and a fixed allocator, without explicitly discussing or adopting them. At oral argument the Company stated that it had no objection to using them on a going-forward basis. The Commission concurs with the Department that these are reasonable, practical, and equitable allocation tools and will direct the Company to use them in future filings.

## **F. Future Filings**

The renewable energy objectives statute is a long-term policy initiative and necessitates long-term reporting and monitoring. The Commission will continue to monitor Xcel's compliance through periodic updates, future resource plan filings, and, when intervals between resource plans exceed two years, future stand-alone biennial filings under the renewable energy objectives statute

To that end, the Commission will require a report and update by October 1 of this year, demonstrating continuing compliance with the renewable energy objectives statute and providing any information requested by the Department for purposes of preparing its January 2007 report to the Minnesota Legislature on utility compliance with the statute

### ***The Company's Resource Plan Filing***

#### **I. Introduction and Factual Background**

The resource planning statute and rules are detailed, but they basically require utilities to file biennial reports on (1) the projected energy needs of their service areas over the next 15 years; (2) their plans for meeting projected need; (3) the analytical process they used to develop their plans for meeting projected need; and (4) their reasons for adopting the specific resource mix proposed to meet projected need Minn Stat § 216B 2422 and Minn Rules Chapter 7843

These requirements are designed to strengthen utilities' long term planning processes by providing input from the public, other regulatory agencies, and the Commission. They are also designed to ensure that utilities give adequate consideration to factors whose public policy importance has grown in recent years, such as the environmental and socioeconomic impact of different resource mixes. For example, the statute requires utilities to develop plans for meeting 50% and 75% of new and refurbished capacity needs with conservation and renewable energy; it also requires them to factor into resource decisions the environmental costs of different generation technologies

Although the Commission must approve, reject, or modify the resource plans of investor-owned utilities, the resource planning process is largely collaborative and iterative.

The process is collaborative because there are few hard facts dictating resource choices or deployment timetables. The facts on which resource decisions depend -- how quickly an area and its need for electricity will grow, how much electricity will cost over the lifetime of a generating facility or a purchased power contract, how much conservation potential the service area holds and at what cost -- all require the kind of careful judgment that sharpens with exposure to the views of engaged and knowledgeable stakeholders

The process is iterative because analyzing future energy needs and preparing to meet them is not a static process; strategies for meeting future needs are always evolving in response to changes in actual conditions in the service area. When demographics, economics, or technologies change, so do resource needs and strategies for meeting them

## **II. Commission Action**

### **A. Forecasting Issues to be Developed**

Forecasting the future energy needs of any utility's service area is an inherently complex, dynamic, and inexact process. Forecasts are always in the process of being refined and updated, and so are forecasting methods.

Probably the most significant forecasting change the Company has made since its last resource plan is to switch from a 50% probability baseline forecast to a 90% probability baseline forecast. This means that, instead of acquiring resources to fully meet a demand forecast with a 50% chance of being over or under actual demand, the Company plans to acquire resources to meet a demand forecast with only a 10% chance of being under actual demand. The Company based its decision to adopt a 90% probability forecast on recent reductions in the region's short-term capacity reserves, mounting constraints on the transmission system, and the need to maintain minimum capacity requirements imposed by the Mid-Continent Area Power Pool.

Several stakeholders expressed concern about using a 90% probability forecast, since it significantly increases projected resource needs. They pointed out that moving to a 90% probability forecast over time, instead of immediately, would avoid disrupting established processes and expectations and would permit careful evaluation as the change occurred. The Commission will require the Company to provide, in its next resource plan, more detailed information and analysis on the implications of moving from a 50% baseline to a 90% baseline.

The Department originally had more extensive and fundamental objections to the Company's forecasting process, stating that the Company had been resistant to collaboration and that the resulting forecast was unreliable for planning purposes. By the date of the hearing, however, the two parties were closer to agreement, and did agree on what near-term capacity additions were required. The Company also agreed to work more closely with the Department on forecasting issues. The Commission will require the Company to do so, and will require a report on those efforts by December 1.

Finally, it remains important to tap whatever potential exists for controlling peak demand through customer control/demand response provisions, and the Commission will require the Company to report on this potential within the next 60 days.

### **B. Capacity Additions Approved and Required**

Ultimately there was less controversy about the need for additional capacity than about what technologies should provide that capacity. The Commission concurs with the Company, the Department, and most commenting stakeholders that the Company should be authorized to issue a Request for Proposals for 136 megawatts of gas peaking capacity, with an online target date of 2011, and to move toward developing 375 megawatts of baseload capacity, with an online target date of 2015.

The Commission concurs with the Department that it is critical to begin the baseload acquisition process immediately. Several business organizations, ranging from utility consortiums to private power producers to the Integrated Gasification Combined Cycle project in northern Minnesota, have stated their interest in providing this baseload capacity. If they are to have any meaningful opportunity to compete to provide it, the competitive procurement process must begin immediately.

Baseload development requires extremely long planning horizons, and the certificate-of-need-like process for selecting new baseload acquisition adopted earlier in this case<sup>9</sup> will be time- and labor-intensive. Since the need to keep the lights on ultimately trumps other interests, delays along the way favor unilateral action by Xcel, who, as the provider of last resort, must step in and build, buy, or otherwise secure the generating capacity required to fulfill its duty to serve.

The Commission will therefore require Xcel to initiate the competitive resource acquisition process established in the May 31, 2006 Order by filing a certificate of need application for 375 megawatts of baseload capacity on or before November 1 of this year.

Finally, the Company believes that upgrades to its Sherco, Monticello, and Prairie Island plants could provide another 320 megawatts of baseload capacity at a cost between \$650/kW and \$1400/kW, depending upon the extent of the upgrades. Clearly, the potential inherent in these upgrades must be promptly and thoroughly explored, and to ensure that this happens, the Commission will require the Company to file for any required Commission review or approval of these upgrades by the end of this year.

### **C. Heightened Demand-Side Management Goals Accepted**

In the course of discussions with the Department and other stakeholders, Xcel has agreed to adopt higher demand-side management goals than it had first proposed, agreeing to use the "Goal + 25%" scenario outlined in its resource plan filing. This scenario implies an energy savings goal of 3,935 GWh and a peak demand savings goal of 1,156 MW over the 15-year planning period. The Commission concurs in the adoption of higher conservation goals as clearly consistent with state energy policy and clearly serving the public interest.

The Company's strategy for meeting these higher goals is the one set forth in its 2007/2008/2009 Triennial Plan Conservation Improvement Report, filed with the Commissioner of Commerce in docket E,G-002/CIP-06-80. The Conservation Improvement Program (CIP) offers unique opportunities for demand-side management, inevitably leading commentators to discuss CIP issues in the resource planning context. By separate letter, the Commission will forward to the Deputy Commissioner of Commerce, for his consideration, comments received in this case regarding that program.

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<sup>9</sup> Order Establishing Resource Acquisition Process, Establishing Bidding Process Under Minn. Stat. § 216B 2422, Subd. 5, and Requiring Compliance filing, this docket (May 31, 2006).

#### D. Expanded CO2 Risk Analysis Required

One of the most pressing but difficult issues in resource planning is how to account for the possibility that the cost of coal-fired generation – even in dollars, as opposed to environmental impact – may skyrocket over the approximately 30-year life of any plant built today. While coal is often the least expensive baseload fuel today, it is widely believed that the growing need to control carbon emissions – and the stringent emissions controls, carbon taxes, and similar measures that may well result – will make it very expensive in the future

The Joint Environmental Intervenors introduced a great deal of evidence about the future cost of coal-fired generation under different regulatory scenarios and recommended adopting a “hedge value” to be applied to each ton of carbon dioxide produced by future generation. Xcel argued that adopting that hedge value would be inconsistent with the monetary values the Commission assigned to environmental externalities in an earlier proceeding.<sup>10</sup>

Obtaining more clarity – and, if possible, more consensus – on these serious issues is clearly in the public interest and in the interests of all stakeholders. The Commission will therefore require Xcel to work with the Joint Environmental Intervenors and the Department to expand and improve its CO2 risk analysis strategies. The Commission will require the Company to carefully examine the risk analysis framework advocated by the Intervenors, as well as other risk analysis strategies, and to report on this examination in the baseload certificate of need filing required above in section II B, as well as in future certificate of need applications, its next resource plan, and other proceedings involving the acquisition of generation resources.

Further, the Commission will require the Company to include in its next resource plan an update on the expansion of its CO2 risk analysis and contingency planning processes. The Commission will also require the Company to provide an analysis of the cost of different resource mixes under different carbon-regulatory scenarios, using the example provided by the Department in its comments of August 1, 2005. That example was based on circumstances specific to Interstate Power and Light and should be adapted to reflect Xcel’s circumstances.

And finally, the Commission will require the Company to investigate and report back on the current state of research and development on capturing, shipping, and storing carbon dioxide emissions from coal-fired Integrated Gasification Combined Cycle (IGCC) power plants, and to provide the most reliable cost estimates currently available for those functions. IGCC technology is believed to hold real promise for low-cost, low-environmental-impact generation, but the associated technology for carbon sequestration has not yet been perfected.

It is important for regulators and stakeholders to have the best available information on the likely costs of these emerging technologies, and the Commission will therefore require similar filings from other utilities as state-wide resource planning progresses.

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<sup>10</sup> *In the Matter of the Quantification of Environmental Costs Pursuant to Laws of Minnesota 1993, Chapter 356, Section 3, Docket No. E-999/CI-93-583*



#### **E. Wind Storage Technology to be Investigated**

As discussed earlier, in regard to Xcel's obligations under the renewable energy objectives statute, increased reliance on wind generation occupies a central place in Minnesota state energy policy. Not only has the Legislature authorized incentive payments to encourage wind production,<sup>11</sup> but it has required utilities to develop tariffs encouraging community-based wind projects<sup>12</sup> and has designated wind and solar-fueled technologies as the first choice for generation to meet Minnesota's future energy needs.<sup>13</sup>

Of course, the two major – and interrelated – obstacles to heavier reliance on wind generation are its intermittent nature and the lack of efficient, cost-effective storage technologies. It is clear that aggressive, focused research and development efforts are necessary to determine the potential for cost-effective wind energy storage. What is less clear is who can most productively conduct and coordinate these efforts and how these efforts will be funded.

These questions are beyond the immediate scope of this docket, but it is critical that they begin to be systematically addressed. The Commission will therefore require Xcel to conduct its own investigation into the current state of research and development on wind storage technologies and to include a report on this investigation in its next resource plan filing.

The Commission will place the same responsibility on other utilities in future dockets, in an effort to secure an accurate picture of current realities and future possibilities.

#### **F. Wind-Related Transmission Reporting Required**

Another obstacle to implementing state policies favoring wind generation is the configuration of the transmission system, which was basically designed to support large, centrally located power plants, not the smaller, geographically dispersed wind projects the Legislature is encouraging. In fact, even large wind farms are sometimes not well served by the existing system, because they are located in places where planners did not expect large power plants.

Clearly, it is important for Xcel to change its transmission planning processes, at both the system and regional levels, to incorporate the needs of wind generators, large and small. This means filing certificate of need applications to construct the new transmission facilities necessary to support the wind projects to which it commits in this and future resource plans as it commits to them. It also means factoring into transmission planning the need for more 69 kV and 115 kV lines, to support the smaller wind projects developing in response to legislative initiatives.

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<sup>11</sup> Minn. Stat. § 216C.41

<sup>12</sup> Minn. Stat. § 216B.1612

<sup>13</sup> Minn. Stat. § 216C.051, subd. 7

The Commission will require Xcel to report on these efforts in its next resource plan and its next biennial transmission projects report under Minn Stat § 216B 2425.

## **G. Reporting on Northern Flood Agreement Concluded**

### **1. Introduction and Background**

Xcel purchases some 500 megawatts of hydroelectric power from Manitoba Hydro, which is both a Crown Corporation owned by the Province of Manitoba and the fourth largest electrical utility in Canada. Manitoba Hydro generates electricity from a system of dams constructed in the northern part of the province in the 1960's. These dams have significant environmental and socioeconomic effects on communities and individuals in the immediate vicinity, most of whom are members of one of five Cree Nations.

The Canadian government, the Government of the Province of Manitoba, Manitoba Hydro, and the five affected Cree Nations have therefore entered into an agreement, the Northern Flood Agreement, which requires compensation and other assistance to persons and communities dealing with the dams' adverse consequences. The agreement was signed in 1977, and because it was clear to everyone that the effects of the dams would unfold over time, the Agreement established an ongoing arbitration process for dealing with the dams' impact.

In 2003, one of the Five Nations, the Pimicikamak Cree Nation (PCN), challenged Xcel's purchased power contract with Manitoba Hydro when it came before the Commission under Xcel's competitive bidding approval process. PCN claimed that the Commission had failed to discharge its duty under Minnesota law and its own resource planning rules to examine the environmental and socioeconomic impacts of the hydroelectric generation Xcel was purchasing.

The Commission found that these impacts had been internalized by the Northern Flood Agreement and continued to be adequately addressed as they arose, through the ongoing arbitration provisions of the Agreement. PCN appealed that determination, and the Court of Appeals upheld the Commission's decision, finding, among other things, that there was little to be gained by any attempt to insert this Commission or the State of Minnesota into ongoing disputes within the Canadian judicial process:

In essence, this lawsuit by relator is a collateral end run around the NFA [Northern Flood Agreement], which contains within its four corners relators' remedies. Manitoba Hydro is a Canadian project, located in Canada, involving Canadian waters and Canadian Indian tribes. The project is approximately forty years old, contains a lengthy agreement detailing rights and obligations of all parties, and, as stated above, contains arbitration provisions carefully setting out the settlement of grievances. Nothing in this aforementioned enumeration involves Minnesota courts. We decline to become entangled in Canadian disputes. The environmental and socioeconomic impacts caused by the Manitoba Project are capable of being addressed under the NFA.

*In the Matter of the Petition of Northern States Power Company for  
Review of its 1999 All Source Request for Proposals, 676 N W 2d 326,  
337 (Minn Ct App 2004)*

The Commission's order, however, did require Xcel to "monitor and report on the status of the on-going implementation of the NFA in its next Resource Plan." Xcel filed that report as part of this resource plan. The Company reported that it had done its best to monitor implementation of the Northern Flood Agreement, but that, being neither a party to the Agreement nor an adjudicator, it had limited access to information and limited expertise.

The Company reported that the arbitration process established in the Agreement was clearly being used, that some \$80 million had been spent for mitigation, compensation, and programming since the mid-1970's, and that some \$11 million had been spent as part of a 2003-2004 action plan for addressing the dams' adverse environmental and socioeconomic effects. Xcel also stated that its reporting obligation had placed it in the awkward position of appearing to offer the kind of "end-run" opportunity criticized by the Court of Appeals, and the Company asked to be relieved of further reporting obligations.

## **2. Commentator Positions**

Four of the Agreement's signatories – Manitoba Hydro, the Government of Manitoba, the Nisichawayasihk Cree Nation, and the Tataskweyak (Split Lake) Cree Nation – opposed further reporting, arguing that responsibility for monitoring compliance with the Northern Flood Agreement lay with the Canadian government and that Xcel's third-party monitoring could only distract the parties and undermine their collective engagement. None of the other signatories to the Agreement offered comments.

The Minnesota Department of Commerce recommended accepting Xcel's report and discontinuing monitoring.

Several commentators, including one group of 400 displaced residents, Minnesota Witness for Environmental Justice, the Joint Environmental Intervenors, the University of Minnesota Human Rights Center and Minnesotans for an Energy-Efficient Economy, and Senator Ellen R. Anderson, recommended further, more extensive monitoring of the implementation of the Northern Flood Agreement, citing persistent poverty and unemployment among residents and communities affected by the dams.

## **3. Commission Action**

While it was reasonable, in 2001, to require an initial report on the operation of the Northern Flood Agreement, that report demonstrates that the Agreement is anything but a dead letter. Implementation and enforcement activities are vigorous and ongoing. These activities are marked by controversy, but, for an undertaking this vast and complex, controversy does not necessarily signal a dysfunctional process. In fact, the absence of controversy might raise concerns.

Further, it is significant that no signatory to the Agreement filed comments recommending the continuing involvement of Xcel or this Commission, and that four signatories have affirmatively asked this Commission to end its involvement. The two signatory arms of the Canadian government who commented in this case stated that, while they have the resources, jurisdiction, and expertise to implement and enforce the Agreement, this Commission does not. And the two signatory Cree Nations who commented stated that this Commission, however well-intentioned it may be, is ill-equipped to add anything helpful to the implementation and enforcement process.

The Commission concurs with the commenting signatories and the Minnesota Court of Appeals that responsibility for monitoring and enforcing compliance with the Northern Flood Agreement lies in the hands of the Canadian government and should be left there. The commenting signatories are also clearly correct that issues such as persistent poverty and high unemployment – important as they are – do not lie within the Commission’s specific areas of expertise.

Finally, as the Court of Appeals noted, continued involvement by this Commission creates “end-run” opportunities that can distract parties from duly established processes for seeking redress, potentially undermining the effectiveness of those processes. It would be both ironic and tragic if Commission efforts to address humanitarian needs resulted in exacerbating those needs.

For all these reasons, the Commission will accept Xcel’s report on the implementation of the Northern Flood Agreement and will not require further reporting at this time.

#### **H. Study of Distributed Generation Required**

Distributed generation has long been a preferred means of meeting new demand; the Legislature has required the Commission to give careful consideration to distributed generation when acting on resource plans, biennial transmission projects reports, and certificate of need applications.<sup>14</sup> It has also required the Commission to establish standard interconnection tariffs for distributed generation projects<sup>15</sup> and has authorized the use of Conservation Improvement Program funds for distributed generation projects.<sup>16</sup> Distributed generation technologies and opportunities remain underdeveloped, however, and serious, sustained effort is required to determine and tap their potential.

The Commission will require this serious and sustained effort from Xcel, which will be required to commission a study by qualified experts, similar to the wind integration study required by the Legislature, to determine what a comprehensive distributed generation strategy would entail. This study will include a technical evaluation of the opportunities, technical potential, and economics of adding significant distributed generation resources to the Xcel system.

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<sup>14</sup> Minn. Stat. § 216B.2426.

<sup>15</sup> Minn. Stat. § 216B.1611.

<sup>16</sup> Minn. Stat. § 216B.2411, subd. 1 (b).

The study must include an evaluation of large customer sites, to identify those with significant distributed generation potential, and must include evaluation of possible Combined Heat and Power initiatives with industrial customers engaged in ethanol production or other enterprises. It must include analyses of the total technical potential for distributed generation within Xcel's service area, the benefits of distributed generation for the grid, and the total economic impact of distributed generation, under both utility ownership and customer ownership.

The Commission will require a report on Company progress in its next resource plan filing and will require similar information from other utilities in the future, to ensure progress on this key energy policy initiative.

#### **I. Next Resource Plan Filing Date Set**

The resource planning statute does not specify how often resource plans should be filed, leaving that to Commission discretion. The Commission's rules specify biennial filings,<sup>17</sup> but as resource plans have become more complex, the Commission has sometimes varied the biennial filing requirement. It is sometimes possible to defer these filings with no harm to the public interest and significant cost savings for utilities, other stakeholders, and the regulatory agencies.

Here, Xcel's next resource plan filing would be due November 1, 2006, using the two-year interval set forth in the rules. The Commission will extend that filing date to July 1, 2007, to give the Company adequate time to incorporate the requirements of this order into that planning process.

The Commission finds that this eight-month extension will adequately protect the public interest while conserving the resources of all concerned and facilitating a more useful filing. The Commission will therefore vary the two-year filing requirement as permitted under Minn. Rules, part 7829.3200, making the following findings:

- (1) Enforcing the two-year filing requirement would impose an excessive burden on the Company, the Department of Commerce, other stakeholders, and the Commission, by requiring a time-consuming and less informative filing than one submitted at a later date.
- (2) Extending the filing deadline will not adversely affect the public interest.
- (3) Extending the filing deadline does not conflict with any standards imposed by law.

Xcel's next resource plan will therefore be due on or before July 1, 2007.

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<sup>17</sup> Minn. Rules, part 7843.0300, subp. 2.

## ORDER

### *Wind Expansion*

1. In the course of this planning period, 2005-2019, Xcel shall deploy an additional 1,680 megawatts wind generation. At least 500 megawatts of this generation shall be from community-based energy development (C-BED) projects, with at least 300 megawatts deployed by 2007, and the remainder deployed by 2010.
2. Within 60 days of the date of this Order, Xcel shall update its wind deployment schedule.

### *Transmission to Support Wind Development*

3. The Commission encourages Xcel to improve its transmission planning to facilitate wind development by aggregating projected wind development projects and integrating these aggregated projects into regional transmission planning.
4. The Commission encourages Xcel to file certificate of need applications for new transmission facilities at the same time that it commits to new wind generation, when new transmission facilities are required to support the new wind development.
5. The Commission encourages Xcel to take into account, in future transmission planning, the need for 69 kV and 115 kV lines to support the development of small and medium sized wind projects located across Minnesota.
6. Xcel shall report on the efforts required in paragraphs 3 and 4 in its next resource plan and its next biennial transmission projects filing. It shall report on the efforts required in paragraph 5 in its next biennial transmission projects filing.

### *Research and Development in Wind Storage Technology*

7. Xcel shall include in its next resource plan a report on its investigation into wind storage research and development.

### *Demand Side Management Goals*

8. Xcel shall use the "Goal + 25%" scenario in setting its demand-side management goals over the 2005-2019 planning period.

### *Forecasting, Modeling, and Capacity Additions*

9. Xcel shall issue a Request for Proposals for 136 megawatts gas peaking capacity, intended for an in-service date of 2011.

- 10 On or before November 1, 2006, Xcel shall file a certificate of need application to initiate the competitive resource acquisition process for 375 megawatts of baseload capacity with an intended in-service date of 2015
- 11 By December 31, 2006, Xcel shall make a filing requesting any mandatory Commission review or approval for any upgrades to its Sherco, Prairie Island, and Monticello baseload facilities discussed in its resource plan filing
12. Within 60 days of the date of this Order, Xcel shall examine and report on the potential for demand response/customer control provisions to help control peak demand
- 13 In its next resource plan, Xcel shall include further information and analysis on the implications of moving from a 50% median probability forecast to a 90% probability forecast
- 14 The Company shall meet with the Department to continue discussions regarding improvements to its forecast and shall file a report on these discussions on or before December 1, 2006

#### *CO2 Planning and Risk Analysis*

- 15 Xcel shall work with the Joint Environmental Intervenors and the Department of Commerce to expand its carbon dioxide risk analysis strategy, including consideration of the analytical framework proposed by the Joint Environmental Intervenors in this case, as well as other risk analysis methodologies
- 16 Xcel shall discuss carbon risk analysis strategies in the November 1, 2006 baseload certificate of need filing required in paragraph 10, in its next resource plan, in future certificate of need filings, and in other proceedings involving the acquisition of generation resources
- 17 In its next resource plan, Xcel shall report on the current state of research and development regarding capturing, shipping, and storing carbon dioxide emissions from coal-fired Integrated Gasification Combined Cycle power plants and shall provide the most reliable cost estimates currently available for those functions
18. In its next resource plan, Xcel shall provide an update on the expansion of its carbon dioxide contingency planning, including an analysis of the cost of different resource mixes under different carbon-regulatory scenarios, using the example provided in the Department's comments of August 1, 2005, adapted to reflect Xcel's circumstances

### *Renewable Energy Objectives*

- 19 The Commission hereby finds Xcel in compliance with the renewable energy objectives statute in 2005 and 2006; the Commission will continue to monitor future compliance through compliance filings, updates and future resource plan filings
20. The finding in paragraph 19 does not imply any finding that particular generation projects are countable under the renewable energy objectives statute; it is a general finding that the plan filed by the Company demonstrates compliance, subject to confirmation of individual project eligibility through normal regulatory processes.
- 21 Xcel shall apply the Vintage Allocation method and the Fixed Allocation Factor, both discussed above, in gauging its compliance with the renewable energy objectives statute
- 22 On or before October 1, 2006, Xcel shall file a report and update showing its compliance with the renewable energy objectives statute. This report shall include any information sought by the Department of Commerce for its January 2007 report to the Minnesota Legislature
- 23 Within 120 days of the date of this Order, Xcel shall file as a supplement to its 2005-2019 resource plan, a report detailing its plan for complying with Minn. Stat. § 216B.1691, subd 6 (a). Besides outlining its compliance plan, this report shall describe stakeholder input in developing the plan, state how many of the 300 megawatts of wind power required under the statute are expected to come from the C-BED projects, identify the geographic areas of the state in which the energy will be generated, and address related transmission issues

### *Distributed Generation Resources*

- 24 Xcel shall commission a study by qualified experts, similar to the ongoing wind integration study required by the Legislature, to determine what a comprehensive distributed generation strategy would entail. This study shall include a technical evaluation of the opportunities, technical potential, and economics of adding significant distributed generation resources to the Xcel system
25. The study required in paragraph 24 must include an evaluation of large customer sites, to identify those with significant distributed generation potential, and must include evaluation of possible Combined Heat and Power initiatives with industrial customers engaged in ethanol production or other enterprises. It must also include analyses of the total technical potential for distributed generation within Xcel's service area, the benefits of distributed generation for the grid, and the total economic impact of distributed generation, under both utility ownership and customer ownership

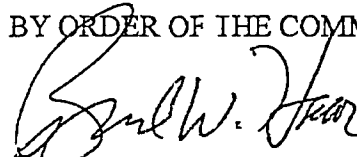


26. In its next resource plan, Xcel shall provide a report on its progress in conducting the distributed generation study required above

*Next Resource Plan*

- 27 Xcel shall file its next resource plan on or before July 1, 2007
- 28 This Order shall become effective immediately

BY ORDER OF THE COMMISSION



Burl W Haar  
Executive Secretary

(S E A L)

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendrayer  
Marshall Johnson  
Ken Nickolai  
Thomas Pugh  
Phyllis A. Reha

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of Northern States Power  
Company d/b/a Xcel Energy's Application for  
Approval of its 2005-2019 Resource Plan

ISSUE DATE: October 18, 2006

DOCKET NO. E-002/RP-04-1752

ORDER AFTER RECONSIDERATION  
CLARIFYING FILING REQUIREMENTS,  
REQUIRING NOTICE TO ALTERNATIVE  
PROVIDERS, SETTING DEADLINES FOR  
BASELOAD PROPOSALS, AND  
ACCEPTING REPORTS

**PROCEDURAL HISTORY**

On July 28, 2006, the Commission issued its ORDER APPROVING RESOURCE PLAN AS MODIFIED, FINDING COMPLIANCE WITH RENEWABLE ENERGY OBJECTIVES STATUTE, AND SETTING FILING REQUIREMENTS in this case. Among other things, that Order required Xcel Energy to file a certificate of need application for 375 megawatts of baseload generation, which would initiate the new competitive resource-acquisition process established by an earlier Order in this case.<sup>1</sup>

On August 17, 2006, Northern States Power Company d/b/a Xcel Energy (Xcel) filed a petition for clarification or reconsideration of the July 28 Order, seeking amendment of two of the Order's 28 ordering paragraphs. One paragraph related to the baseload-generation filing and the other to a filing on proposed upgrades to three existing generating plants.

On September 1, 2006, the Minnesota Department of Commerce (the Department) filed comments on the Company's petition. The Department did not oppose clarifying the two ordering paragraphs but was concerned that language proposed by the Company might contribute to further confusion.

On October 12, 2006, the petition came before the Commission. The following parties appeared:

- Northern States Power Company d/b/a Xcel Energy
- Minnesota Department of Commerce
- Gascoyne Project

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<sup>1</sup> Order Establishing Resource Acquisition Process, Establishing Bidding Process Under Minn. Stat. § 216B 2422, and Requiring Compliance Filing, this docket, May 31, 2006

- Izaak Walton League of America – Midwest Office, Minnesotans for an Energy-Efficient Economy, Union of Concerned Scientists, and Minnesota Center for Environmental Advocacy, filing jointly (“Environmental Intervenor”)

The Gascoyne Project and the Environmental Intervenor appeared mainly for the purpose of requesting further guidance on how the new competitive resource-acquisition process would work in practice.

No one opposed the Company’s request to clarify the two ordering paragraphs, and the parties ultimately agreed on what clarifying language they would recommend. No one opposed the request that the Commission or the Department act to facilitate alternative providers’ participation in the new competitive resource-acquisition process.

## **FINDINGS AND CONCLUSIONS**

### **I. Ordering Paragraphs Clarified**

#### **A. Ordering Paragraph 10: Filing a Certificate of Need for Baseload Capacity**

Currently, ordering paragraph 10 reads as follows:

- 10 On or before November 1, 2006, Xcel shall file a certificate of need application to initiate the competitive resource acquisition process for 375 megawatts of baseload capacity with an intended in-service date of 2015

The Company asked that this paragraph be changed to clarify that what it must file by November 1 is not necessarily a certificate of need application, but a filing beginning the formal competitive resource-acquisition process required for the 375 megawatts of baseload capacity the Order requires it to secure.

The Company proposed changing the current ordering paragraph to the one set forth below:

- 10 On or before November 1, 2006, Xcel shall initiate the competitive resource acquisition process for 375 megawatts of baseload capacity with an intended in-service date of 2015 by filing its proposal for meeting that need, consistent with Xcel Energy’s August 28<sup>th</sup> compliance filing implementing the approved process.

The Department of Commerce (the Department) concurred with the Company that filings other than a certificate of need application – such as a purchased power agreement(s) – could also meet the intent of this ordering paragraph. That intent, of course, is not to require the Company to build a power plant, but to require the Company to begin the formal, competitive process to acquire the 375 megawatts of baseload capacity the Commission has determined it will soon need.

The Department was concerned, however, to make it clear that the Company must file a document actually beginning the resource-acquisition process, not a proposal for beginning that process. The Department therefore recommended that the ordering paragraph be modified to read as follows:

- 10 On or before November 1, 2006, Xcel shall file a certificate of need application or a signed power purchase agreement to initiate the competitive resource acquisition process for 375 megawatts of baseload capacity with an intended in-service date of 2015

The Commission concurs with the Department that the Company's proposed language may risk further confusion and delay and will therefore adopt the order language recommended by the Department.

**B. Ordering Paragraph 11: Filing for Review or Approval of Upgrades to Baseload Facilities**

Currently, ordering paragraph 11 reads as follows:

- 11 By December 31, 2006, Xcel shall make a filing requesting any mandatory Commission review or approval for any upgrades to its Sherco, Prairie Island, and Monticello baseload facilities discussed in its resource plan filing

The Company asked that this paragraph be changed to limit the December 2006 filing to a report on the planned upgrades and to move the deadline for any necessary applications for certificates of need for these upgrades to September 1, 2007. The Company explained that planned upgrades to the Sherco plant would not require a certificate of need, making a report sufficient, and that it would be more efficient to file certificate of need applications for upgrades to the two nuclear facilities, Prairie Island and Monticello, after final action on pending applications for additional nuclear waste storage at Monticello and for the relicensing of the Monticello plant.

The Company proposed that ordering paragraph 11 be modified to read as set forth below:

- 11 By December 31, 2006, Xcel shall make a filing providing additional detail on its planned upgrades to its Sherco, Prairie Island, and Monticello baseload facilities. Xcel shall file any required certificates of need for these upgrades no later than September 1, 2007.

The Department concurred with the Company's request, pointing to the efficiencies to be gained by avoiding a premature certificate of need filing.

The Commission agrees with the parties. The detailed report the Company will file in December 2006 will adequately apprise regulators and stakeholders of the nature, costs, and benefits of the proposed plant upgrades without diverting limited resources to a premature certificate of need proceeding.

**II. Measures Adopted to Facilitate Proposals from Alternative Providers**

On November 1, Xcel will make its first filing under the new competitive resource-acquisition process adopted in this docket.

The Company, the Department, and the intervenors who appeared at hearing all agreed that additional guidance would be useful as alternative providers prepare and file competing baseload

proposals. The Commission concurs, and will set the requirements described below, which were unopposed at hearing.

**A. Department to Facilitate Alternative Providers' Participation**

Clearly, it is impossible to anticipate all the issues and questions that will arise as alternative providers prepare and submit their baseload-generation proposals. Nor is it possible to rely on formal Commission action to iron out every detail of this new process. At the same time, however, the success and integrity of the process depend upon clear and effective channels of communication, process transparency, and the even-handed application of uniform requirements.

To address these needs, the Department has agreed to facilitate alternative providers' participation in the competitive resource-acquisition process. The Department will act as a liaison between alternative providers and the Company, will provide guidance on process and procedural issues, and will generally help ensure that this process meets the goals outlined in the May 31 Order that established it.

The Commission is gratified by the Department's willingness to play this important role.

**B. Term Sheet Required**

As the Commission noted when it established the new competitive resource-acquisition process, the old competitive process fell short in part because its open-endedness and flexibility tended to undermine the certainty, transparency, and accountability required in the commercial context.<sup>2</sup> To inject as much certainty as possible into this process, and to provide valid grounds for comparing alternative proposals, the Commission will require the Company to prepare and file a term sheet, listing minimum terms that must be met for alternative proposals to receive consideration. This term sheet will accompany both the Company's baseload proposal, to be filed by November 1, and the notice soliciting baseload generation proposals that the Company will send potential alternative providers under other provisions of this Order.

**C. Filing Deadline for Alternative Proposals Set**

To give alternative providers the best possible understanding of Xcel's baseload generation requirements, the Commission will move the deadline for filing alternative baseload generation proposals from the original November 1 deadline to 45 days after Xcel files its proposal and term sheet. This interval should help prevent misunderstandings about the nature and extent of Xcel's generation needs.

**D. Notice to Potential Alternative Providers Required**

Although alternative providers capable of providing baseload generation are, in the main, sophisticated and highly informed, there is still value in providing all of them with timely and uniform notice of the opportunity to file baseload generation proposals, the date by which proposals must be filed, and the terms that must be included. Timely, uniform, across-the-board notice ensures that all potential competitors receive at least the same baseline information, and it demonstrates the Company's commitment to an open, even-handed process.

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<sup>2</sup> May 31 Order at 2-3

The Commission will require the Company to work with the Department in composing and distributing the notice, will require distribution of the notice within 20 days of the October 12 hearing (i.e., by November 1), and will require a compliance filing no later than November 15 describing the notice and the notice process

### III. Reporting Obligation Found Satisfied

Finally, Xcel, as the state's only nuclear utility, must include in its periodic resource plans, filings addressing three nuclear-specific issues listed at Minn. Stat. § 116C.772: (1) a transition plan for the Prairie Island work force in the event of a lengthy plant shut-down; (2) a plan for the eventual phase-out of nuclear generation; and (3) a decommissioning plan for the nuclear waste storage casks after they are emptied.<sup>3</sup>

The Company's resource plan filing did include these reports, which met the statutory requirements and will be accepted by the Commission

### ORDER

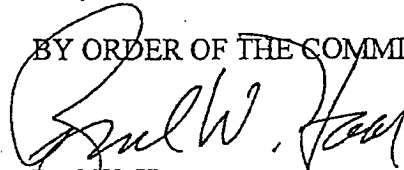
1. Ordering paragraph 10 of the July 28, 2006 Order in this case is modified to read as set forth below:
  10. On or before November 1, 2006, Xcel shall file a certificate of need application or a signed power purchase agreement to initiate the competitive resource acquisition process for 375 megawatts of baseload capacity with an intended in-service date of 2015
2. Ordering paragraph 11 of the July 28, 2006 Order in this case is modified to read as set forth below:
  11. By December 31, 2006, Xcel shall make a filing providing additional detail on its planned upgrades to its Sherco, Prairie Island, and Monticello baseload facilities. Xcel shall file any required certificates of need for these upgrades no later than September 1, 2007
3. In the November 1 filing required under the July 28 Order, Xcel shall file, in addition to a certificate of need application and/or a signed power purchase agreement, a term sheet that alternative providers may use in preparing and submitting alternative proposals for a baseload resource
4. On or before November 1, 2006, Xcel shall provide notice to potential alternative providers of the opportunity to file proposals to provide baseload resources as part of the competitive resource acquisition process. The Company shall work with the Department of Commerce in composing and distributing the notice. The notice shall inform notice recipients that the Department has agreed to facilitate alternative providers' participation in the resource-acquisition process, will provide guidance on process and procedural issues, and will generally help ensure that the process meets the goals outlined in the May 31 Order that established it.

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<sup>3</sup> This requirement appears at Minn. Stat. § 216C.051, subd. 3 (d)

- 5 On or before November 15, 2006, Xcel shall make a compliance filing describing the notice content and process.
- 6 Alternative proposals intended to compete with Xcel's proposal for the provision of 375 megawatts of baseload capacity with an intended in-service date of 2015, required under ordering paragraph 10 of the July 28 Order, shall be filed no later than 45 days from the date of Xcel's filing.
- 7 The Commission accepts Xcel's filing under Minn Stat § 216C 051, subd 3 (d) as meeting statutory requirements
- 8 In all other respects, the July 28 Order is affirmed and remains in full force and effect
- 9 This Order shall become effective immediately.

BY ORDER OF THE COMMISSION



Burl W Haar  
Executive Secretary

(SEAL)

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BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendraye  
Marshall Johnson  
Thomas Pugh  
Phyllis A. Reha

Chair  
Commissioner  
Commissioner  
Commissioner

In the Matter of Northern States Power  
Company d/b/a Xcel Energy's Application for  
Approval of its 2005-2019 Resource Plan

ISSUE DATE: June 11, 2007

DOCKET NO. E-002/RP-04-1752

ORDER EXTENDING TIME TO FILE  
RESOURCE PLAN

PROCEDURAL HISTORY

On July 28, 2006, the Commission issued its Order Approving Resource Plan as Modified, Finding Compliance With Renewable Energy Objectives Statute, and Setting Filing Requirements, which required Northern States Power Company d/b/a Xcel Energy (Xcel) to file its next resource plan on July 1, 2007.

On April 2, 2007, Xcel filed a request for an extension of time until March 2008 to file its next resource plan.

On April 18, 2007, the Department of Commerce (the Department) and the Minnesota Center for Environmental Advocacy/Izaak Walton League of America (MECA/IWLA) filed comments in support of Xcel's request.

On April 20, 2007, the Minnesota Chamber of Commerce and Kristen Eide-Tollafson filed comments.

On April 30, 2007, MECA/IWLA and Xcel filed reply comments.

On May 29, 2007, Senator Gary W. Kubly, Minnesota Senate, filed comments, requesting that should the Commission grant Xcel an extension to file its resource plan, it still require Xcel to update and file the nuclear reports required by Minn. Stat. § 216C.051 by July 1, 2007.

On May 30, 2007, the Prairie Island Indian Community and Senator Ellen Anderson, Minnesota Senate, filed comments also seeking to require Xcel to file the updated nuclear reports by July 1, 2007.

The Commission met on May 31, 2007 to consider the matter.



## FINDINGS AND CONCLUSIONS

### **I. Positions of the Parties**

#### **A. Xcel's Request for Extension to File Its Next Resource Plan**

Xcel requested permission to file its next resource plan no later than March 1, 2008. Xcel stated that a later filing date would both allow the Company to incorporate the requirements of the recently enacted Renewable Energy Standard and the results of various resource acquisition dockets currently pending before the Commission.

Xcel explained that the Minnesota Legislature's recent enactment of a Renewable Energy Standard,<sup>1</sup> which requires Xcel to provide 30 percent of its Minnesota retail sales from qualifying renewable energy sources, with 25 percent provided by wind generation by 2020, will have a significant effect on its future resource plans. The Company asserted that it needs additional time to adequately incorporate the new requirements from this law into its resource planning process, to produce a more robust resource plan.

Xcel also pointed to the numerous resource acquisition dockets currently underway or contemplated<sup>2</sup> that will have a significant impact on the Company's future resource planning assumptions and needs. Xcel asserted that delaying its next resource plan filing until March 2008 will allow the Company to incorporate the impact of Commission decisions made before that date into the resource plan filing.

Finally, Xcel also indicated that depending on the status of the additional resource dockets, the Company might request an extension beyond March 1, 2008.

#### **B. Responses to the Request for Extension**

The Department recommended that the Commission approve Xcel's request. The Department reasoned that the new renewable energy standard is a significant change from current statutes that should be incorporated into future resource plans. Further, the Department asserted that allowing completion of the numerous resource acquisition proceedings arising from Xcel's 2004 resource plan prior to the submission of a new plan will result in a more forward looking resource plan.

Kristen Eide-Tollefson concurred with the Company's and the Department's rationale for an extension of the resource plan filing. Ms. Tollefson argued, however, that the timing of the filing

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<sup>1</sup> 2007 Minnesota Session Law, Chapter 3, SF 4.

<sup>2</sup> These dockets include:

- Xcel's request to initiate a competitive resource acquisition process for base load generation (Docket No. E-002/CN-1518);
- the Excelsior Energy proceeding (Docket No. E-6472/M-05-1993);
- the nuclear upgrade filings for the Monticello and Prairie Island nuclear power plants to be filed in June and September 2007;
- the Sherco emissions reduction and upgrade proposal to be filed in September 2007; and
- the application for an Xcel Energy owned wind project.

requirement for the reports regarding nuclear power plant contingencies required under Minn. Stat. § 216C.051, subd. 3d, needs to remain July 1, 2007.<sup>3</sup>

The MCEA/IWLA did not oppose Xcel's request for an extension, but indicated it would oppose any extension beyond March 2008. In reply comments, the IWLA concurred with Ms. Eide-Tollefson that requiring a July 2007 filing date for the nuclear reports required by Minn. Stat. § 216C.051, subd. 3d is preferable.

The Minnesota Chamber of Commerce supported Xcel's request for extension, but proposed that Xcel be asked to include in its resource plan filing estimates of the rate and reliability impacts of the Company's proposed plan in a manner meaningful to an average commercial, industrial and residential ratepayer. The Chamber also requested that Xcel be asked to report the rate and reliability impacts of legislative directives and Commission orders on pending dockets that affect its proposed resource plan.

Senators Gary W. Kubly and Ellen R. Anderson of the Minnesota Senate submitted comments requesting that the nuclear reports remain due on their original timeline of July 1, 2007. The Prairie Island Indian Community also filed comments requesting that Xcel be required to submit the nuclear reports, including the decommissioning plan for the TN-40 casks, by July 1, 2007.

### **C. Xcel's Reply**

In response to the IWLA's comment that it would oppose any further extension request by Xcel beyond March 2008, Xcel indicated that the Company will continue to assess the status of its various resource acquisition dockets, and if circumstances change such that additional extensions are deemed advisable, it will file such a request not later than November 30, 2007.

The Company also indicated that the rate and reliability impact reporting requested by the Minnesota Chamber of Commerce is already information the Commission must consider in its evaluation of the resource plan. Xcel indicated that it intends to work with the Chamber in advance of its next resource plan filing to determine whether there is additional information it could include in its filing that would be meaningful to the Chamber.

Finally, at the hearing, Xcel agreed to provide the updated nuclear reports by July 1, 2007.

## **II. Commission Analysis and Action**

Based on the Department's recommendation, and the concurrence of others commenting on its request, the Commission will approve Xcel's requested extension of time until March 3, 2008, to file its next resource plan.

The Commission encourages Xcel to utilize the additional time to address the potentially significant changes resulting from statutory changes such as the Renewable Energy Standard and to incorporate the results of presently outstanding resource acquisition dockets. The Commission cautions Xcel, however, that it does not presently intend to grant further extension requests. In the event that Xcel decides to seek an additional extension, the Commission therefore will require the Company to file its request no later than November 30, 2007.

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<sup>3</sup> These reports are required to be filed with both the Commission and the Legislative Electric Energy Task Force (LEETF).

The Commission also acknowledges and accepts Xcel's commitment to file the nuclear reports required under Minn. Stat. § 216C.051 on or before July 1, 2007. The Commission recognizes that Xcel has complied with all legislatively mandated updates to the worker transition plan, the nuclear power phase-out plan, and the cask decommissioning plan, and that a relatively short time has elapsed since the Commission approved Xcel's 2004 resource plan on July 28, 2006. The Commission is also aware, however, that the Legislative Electric Energy Task Force has pending numerous issues related to the nuclear power industry, and that Xcel's timely and complete filing of the nuclear reports remains of critical importance.

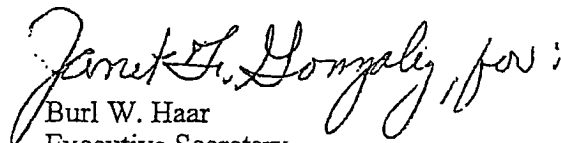
The Commission therefore encourages Xcel to work with legislative staff, Task Force committee members, and other stakeholders to make the nuclear updates more useful, informative and meaningful.

Finally, given the requirements already contained in the resource planning rules,<sup>4</sup> the Commission will deny the Minnesota Chamber of Commerce's request that Xcel be required to comply with additional reporting requirements in its next resource plan. The Commission will, however, encourage Xcel to work with the Chamber of Commerce in advance of the Company's next resource plan to determine whether there is additional information that might be meaningful to the members of the Chamber.

#### ORDER

1. Xcel shall file its next resource plan no later than March 3, 2008.
2. In the event that it decides to seek an additional extension, Xcel shall file its request no later than November 30, 2007.
3. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

  
Burl W. Haar  
Executive Secretary

(S E A L)

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<sup>4</sup> Minn. Rules, Part 7843.0500, subp. 3.

**7610.0430 Fuel Requirements and Generation by Fuel Type**

|                    |             | <u>Nuclear</u> | <u>Nuclear</u> | <u>Coal</u> | <u>Coal</u> | <u>RDF</u> | <u>RDF</u> | <u>Natural Gas</u> | <u>Natural Gas</u> | <u>Oil</u>  | <u>Oil</u> | <u>Hydro</u> |
|--------------------|-------------|----------------|----------------|-------------|-------------|------------|------------|--------------------|--------------------|-------------|------------|--------------|
|                    |             | 1000 Mbtu      | 1000 MWhr      | 1000 Ton    | 1000 MWhr   | 1000 Ton   | 1000 MWhr  | 1000 mcf           | 1000 MWhr          | 1000 Gallon | 1000 MWhr  | 1000 MWhr    |
| Past Year          | <b>2006</b> | 138,420        | 13,183         | 11,766      | 19,083      | 348        | 206        | 6,768              | 910                | 375         | 32         | 59           |
| Present Year       | <b>2007</b> | 139,368        | 13,369         | 12,632      | 20,886      | 327        | 192        | 10,402             | 922                | 6           | 0          | 86           |
| 1st Forecast Year  | <b>2008</b> | 139,389        | 13,377         | 12,736      | 21,108      | 305        | 177        | 16,009             | 1,869              | 25          | 1          | 86           |
| 2nd Forecast Year  | <b>2009</b> | 137,193        | 13,160         | 11,794      | 19,644      | 313        | 183        | 30,804             | 3,974              | 34          | 2          | 86           |
| 3rd Forecast Year  | <b>2010</b> | 143,925        | 13,812         | 11,187      | 18,856      | 300        | 173        | 31,250             | 4,095              | 29          | 2          | 86           |
| 4th Forecast Year  | <b>2011</b> | 141,360        | 13,563         | 11,394      | 19,328      | 303        | 175        | 29,102             | 3,938              | 11          | 1          | 86           |
| 5th Forecast Year  | <b>2012</b> | 145,371        | 13,956         | 11,084      | 18,926      | 286        | 165        | 28,081             | 3,804              | 9           | 1          | 86           |
| 6th Forecast Year  | <b>2013</b> | 148,213        | 14,224         | 11,043      | 18,816      | -          | -          | 26,952             | 3,653              | 10          | 1          | 86           |
| 7th Forecast Year  | <b>2014</b> | 157,593        | 15,124         | 10,806      | 18,332      | -          | -          | 23,614             | 3,188              | 19          | 1          | 86           |
| 8th Forecast Year  | <b>2015</b> | 161,981        | 15,538         | 10,527      | 17,782      | -          | -          | 25,203             | 3,391              | 25          | 1          | 86           |
| 9th Forecast Year  | <b>2016</b> | 162,106        | 15,555         | 10,407      | 17,533      | -          | -          | 23,744             | 3,203              | 1           | 0          | 86           |
| 10th Forecast Year | <b>2017</b> | 158,493        | 15,204         | 10,288      | 17,300      | -          | -          | 24,141             | 3,257              | 1           | 0          | 86           |
| 11th Forecast Year | <b>2018</b> | 163,689        | 15,706         | 10,208      | 17,131      | -          | -          | 24,458             | 3,288              | 2           | 0          | 86           |
| 12th Forecast Year | <b>2019</b> | 160,663        | 15,411         | 10,235      | 17,177      | -          | -          | 22,013             | 2,958              | 2           | 0          | 86           |
| 13th Forecast Year | <b>2020</b> | 164,530        | 15,787         | 10,161      | 17,019      | -          | -          | 21,074             | 2,844              | 1           | 0          | 86           |
| 14th Forecast Year | <b>2021</b> | 158,493        | 15,204         | 10,272      | 17,249      | -          | -          | 22,326             | 3,014              | 1           | 0          | 86           |

Note: Forecast data for 2006-2020 from the long-term Strategist model. Other forecasts for a shorter term (5 yrs or less) are based on the PROSYM model.

Forecasts from Strategist and from PROSYM for the 2006-2010 time frame are not identical.

## 7610.0500 – Transmission Lines

## 7160.0500 TRANSMISSION LINES

### Subpart 1. Existing Transmission Lines Over 200 kV

A map is included at the end of this section.

| Design Voltage | Size of Conductor | Type of Conductor | D.C. or A.C. (specify) | Location of D.C. Terminals or A.C. substations | Length in MN (miles) |
|----------------|-------------------|-------------------|------------------------|------------------------------------------------|----------------------|
| 500 kV         | 3-1192            | ACSR              | A.C.                   | Forbes (MPC)-Manitoba Hydro Interconnection    | 203.79               |
| 500 kV         | 3-1192            | ACSR              | A.C.                   | Chisago Co.-MPL                                | 61.56                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | King-Red Rock                                  | 24.97                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Parkers Lake-Prairie Island                    | 33.09                |
|                | 2-954             | ACSR              | A.C.                   |                                                | 34.17                |
|                | 2312              | ACSR              | A.C.                   |                                                | 0.22                 |
| 345 kV         | 2-795             | ACSR              | A.C.                   | King-Terminal                                  | 23.00                |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Monticello-Parkers Lake                        | 37.16                |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Prairie Island-Adams                           | 2.42                 |
|                | 2-795             | ACSR              | A.C.                   |                                                | 73.87                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Chisago Co.-Coon Creek                         | 26.18                |
|                | 2-954             | ACSR              | A.C.                   |                                                | 31.56                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | King-St. Croix River                           | 19.26                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Blue Lake-Lakefield Junction                   | 127.88               |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Sherburne Co.-Terminal                         | 43.50                |
|                | 2-795             | ACSR              | A.C.                   |                                                | 13.73                |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Sherburne Co.-CU Connection                    | 33.26                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Prairie Island-Red Rock                        | 29.44                |
|                | 2-954             | ACSR              | A.C.                   |                                                | 2.57                 |

Continued next page

| Design Voltage | Size of Conductor | Type of Conductor | D.C. or A.C. (specify) | Location of D.C. Terminals or A.C. substations   | Length in MN (miles) |
|----------------|-------------------|-------------------|------------------------|--------------------------------------------------|----------------------|
| 345 kV         | 2-795             | ACSR              | A.C.                   | Prairie Island-Red Rock                          | 29.44                |
|                | 2-954             | ACSR              | A.C.                   |                                                  | 2.57                 |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Parkers Lake-Blue Lake                           | 14.86                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Blue Lake-Red Rock                               | 31.16                |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Sherburne Co.-Monticello                         | 5.78                 |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Sherburne Co.-Coon Creek                         | 43.50                |
| 345 kV         | 2-1192            | ACSR              | A.C.                   | Sherburne Co.-CPA Interconnection                | 10.55                |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Chisago Co.-King                                 | 6.61                 |
|                | 2-954             | ACSR              | A.C.                   |                                                  | 31.56                |
| 345 kV         | 2-954             | ACSR              | A.C.                   | Parkers Lake-CU Connection                       | 9.64                 |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Calpine Generation- Wilmarth                     | 0.19                 |
| 230 kV         | 795               | ACSR              | A.C.                   | Blue Lake-Minnesota Valley -WAPA (Granite Falls) | 107.04               |
| 230 kV         | 795               | ACSR              | A.C.                   | Red Rock-Rush City (UPA)-MP&L Co.                | 66.55                |
|                | 1272              | ACSR              | A.C.                   |                                                  | 13.82                |
| 230 kV         | 795               | ACSR              | A.C.                   | Wilmar-Paynsville                                | 29.74                |
| 230 kV         | 795               | ACSR              | A.C.                   | Audubon-Badoura                                  | 38.31                |
| Total          |                   |                   |                        |                                                  | 1262.95              |

## 7160.0500 TRANSMISSION LINES

### Subpart 2. Transmission Line Additions

A map is included at the end of this section.

| Design Voltage | Size of Conductor | Type of Conductor | D.C. or A.C. (specify) | Location of D.C. Terminals or A.C. Substations | Date    | Length in MN (miles) |
|----------------|-------------------|-------------------|------------------------|------------------------------------------------|---------|----------------------|
| 345 kV         | 2-954             | ACSS              | A.C.                   | Split Rock (SD) - Lakefield Jct.*              | 2008    | 86                   |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Dakota Co Gen - PI/Blue Lake circuit 1**       | Unknown | 0.75                 |
| 345 kV         | 2-795             | ACSR              | A.C.                   | Dakota Co Gen - PI/Blue Lake circuit 2**       | Unknown | 0.75                 |

\*Project associated with anticipated wind generation developments in SW Minnesota. Certificate of need approved by the Minnesota PUC in March 2003.

\*\*Interconnection project associated with a proposed Dakota Co generating plant addition. In service estimated at 26 Months after execution of a Facility Construction Agreement with Great River Energy and MISO. Currently project is in suspension.

Note #1: A transmission study known as CAPX 2020 was initiated by some of the utilities in Minnesota, North Dakota, South Dakota and Wisconsin looking at the Extra High Voltage (EHV) transmission needs in the region for the next 15 years. This high level study has identified highly conceptual transmission requirements under three generation scenarios; a Northwest Bias, a Minnesota Bias and an East Bias. The High level conceptual vision plan has been developed. The first set of projects known as Group 1 have undergone more detailed design studies, and an application for a certificate of need is being filed for these projects in summer 2007.

The Group 1 Projects are expected to be in service by 2012. A next group of projects from the vision plan (Group 2) are expected a few years later. Beyond the five projects listed in Group 1, no timeframes have been determined, nor is it known which utilities may develop these concepts further, although most of the Group 1 utilities will likely be involved in Group 2. This information is provided as indicative of the present thinking of the likely transmission needs during the next 15 years.

#### CAPX 2020 Transmission Projects - Group 1

| Design Voltage | Size of Conductor | Type of Conductor | D.C. or A.C. (specify) | Location of D.C. Terminals or A.C. Substations | Date | Length in MN (miles)* |
|----------------|-------------------|-------------------|------------------------|------------------------------------------------|------|-----------------------|
| 230 kV         | 2-954             | ACSR              | A.C.                   | Bemidji North Central 230kV                    | 2012 | 70                    |
| 345 kV         | 2-795             | ACSS              | A.C.                   | SE Twin Cities - Rochester - LaCrosse 345kV    | 2012 | 150                   |
| 345 kV         | 2-795             | ACSS              | A.C.                   | Fargo, ND - St Cloud/Monticello MN 345kV       | 2012 | 200                   |
| 345 kV         | 2-795             | ACSS              | A.C.                   | Marshall, MN - Granite Falls, MN 345 kV        | 2012 | 30                    |
| 345 kV         | 2-795             | ACSS              | A.C.                   | Brookings, SD - SE Twin Cities 345kV           | 2012 | 200                   |
|                |                   |                   |                        | Total                                          |      | 650                   |



**CAPX 2020 Future Transmission Needs**

| Design Voltage | Size of Conductor | Type of Conductor | D.C. or A.C. (specify) | Location of D.C. Terminals or A.C. Substations                           | Date    | Length in MN (miles)* |
|----------------|-------------------|-------------------|------------------------|--------------------------------------------------------------------------|---------|-----------------------|
| 345 kV         | Unknown           | Unknown           | A.C.                   | Outer ring around the Twin Cities                                        | Unknown | 200                   |
| 345 kV         | Unknown           | Unknown           | A.C.                   | North East Minnesota (Forbes/Arrowhead Region) - Twin Cities             | Unknown | 180                   |
| 345 kV         | Unknown           | Unknown           | A.C.                   | LaCrosse - East Central Wisconsin 345kV                                  | Unknown | 150                   |
| 345 kV         | Unknown           | Unknown           | A.C.                   | West Central Minnesota (Granite Falls/Minnesota Valley) - St. Cloud Area | Unknown | 110                   |
| 345 kV         | Unknown           | Unknown           | A.C.                   | Northwest Minnesota (Manitoba Border) - Twin Cities                      | Unknown | 250                   |
|                |                   |                   |                        | Total                                                                    |         | 890                   |

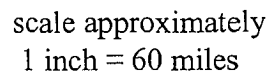
Note#2: In the Midwest ISO (MISO) MTEP 2006 transmission plan report, MISO discussed a conceptual 765 kV vision. This preliminary concept included the potential for one such line through southern Minnesota. Further discussion and development of this concept are expected over the next year.

**Subpart 3. Transmission Line Retirements**

None.

The Company has received all required regulatory approvals to transfer ownership of certain transmission assets in North Dakota to Great River Energy (GRE) in exchange for GRE transmission assets in Minnesota. See Docket No. E002/PA-06-932. The transfer is expected to close in 3rd or 4th quarter 2007.

(Lines Above 200 kV)



7610.0600, item A. 24-HOUR

PEAK DAY DEMAND

Each utility shall provide the following information for the last calendar year:

A table of the demand in megawatts by the hour over a 24-hour period for:

1. the 24-hour period during the summer season when the megawatt demand on the system was the greatest; and
2. the 24-hour period during the winter season when the megawatt demand on the system was the greatest.

(Use the table to the right)

| TIME<br>OF<br>DAY | DATE: 7/31/2006               |       | DATE: 12/4/2006               |       |
|-------------------|-------------------------------|-------|-------------------------------|-------|
|                   | MW USED ON<br>SUMMER PEAK DAY |       | MW USED ON<br>WINTER PEAK DAY |       |
| 0100              | •                             | 6,823 | •                             | 4,591 |
| 0200              | •                             | 6,500 | •                             | 4,474 |
| 0300              | •                             | 6,298 | •                             | 4,461 |
| 0400              | •                             | 6,144 | •                             | 4,429 |
| 0500              | •                             | 6,172 | •                             | 4,549 |
| 0600              | •                             | 6,478 | •                             | 4,969 |
| 0700              | •                             | 6,934 | •                             | 5,675 |
| 0800              | •                             | 7,529 | •                             | 6,136 |
| 0900              | •                             | 8,066 | •                             | 6,183 |
| 1000              | •                             | 8,509 | •                             | 6,216 |
| 1100              | •                             | 8,790 | •                             | 6,267 |
| 1200              | •                             | 8,781 | •                             | 6,227 |
| 1300              | •                             | 8,830 | •                             | 6,211 |
| 1400              | •                             | 8,949 | •                             | 6,182 |
| 1500              | •                             | 9,026 | •                             | 6,108 |
| 1600              | •                             | 9,027 | •                             | 6,112 |
| 1700              | •                             | 8,973 | •                             | 6,402 |
| 1800              | •                             | 8,895 | •                             | 6,887 |
| 1900              | •                             | 8,743 | •                             | 6,858 |
| 2000              | •                             | 8,679 | •                             | 6,743 |
| 2100              | •                             | 8,625 | •                             | 6,553 |
| 2200              | •                             | 8,620 | •                             | 6,233 |
| 2300              | •                             | 8,141 | •                             | 5,682 |
| 2400              | •                             | 7,618 | •                             | 5,187 |

**A. 7610.0700**
**Quarterly Report of Electricity Delivered to Ultimate Consumers in Minnesota, 2006**

| SIC<br>Code | 1st Quarter            |                |                     | 2nd Quarter            |                |                     | 3rd Quarter            |                |                     | 4th Quarter            |                |                     |
|-------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|
|             | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) |
| SLS01T09    | 3,649                  | 82,030         | 6,111               | 3,270                  | 46,628         | 3,329               | 3,332                  | 59,630         | 5,093               | 3,343                  | 52,906         | 4,151               |
| SLS10T19    | 2,962                  | 117,409        | 7,614               | 2,934                  | 56,952         | 3,941               | 2,877                  | 62,714         | 5,407               | 2,890                  | 58,685         | 4,529               |
| SLS20       | 715                    | 292,993        | 18,598              | 1,031                  | 318,479        | 17,403              | 1,020                  | 350,612        | 23,650              | 1,007                  | 317,766        | 19,393              |
| SLS21       | 6                      | 690            | 51                  | 6                      | 647            | 42                  | 6                      | 446            | 40                  | 6                      | 626            | 47                  |
| SLS22       | 58                     | 4,913          | 362                 | 72                     | 8,056          | 511                 | 71                     | 8,619          | 667                 | 71                     | 7,749          | 545                 |
| SLS23       | 145                    | 2,593          | 230                 | 142                    | 2,698          | 209                 | 139                    | 3,065          | 291                 | 142                    | 3,420          | 306                 |
| SLS24       | 447                    | 39,366         | 2,749               | 440                    | 50,384         | 2,927               | 440                    | 51,579         | 3,800               | 424                    | 46,003         | 2,959               |
| SLS25       | 161                    | 5,172          | 457                 | 158                    | 4,826          | 361                 | 156                    | 5,012          | 479                 | 155                    | 4,376          | 367                 |
| SLS26       | 230                    | 189,759        | 10,266              | 254                    | 207,365        | 8,895               | 249                    | 237,107        | 11,838              | 252                    | 233,658        | 10,825              |
| SLS27       | 1,138                  | 126,851        | 8,907               | 1,112                  | 147,680        | 8,948               | 1,087                  | 161,306        | 12,032              | 1,064                  | 145,758        | 9,620               |
| SLS28       | 335                    | 152,976        | 8,719               | 355                    | 173,431        | 8,518               | 353                    | 192,045        | 11,663              | 364                    | 174,974        | 9,596               |
| SLS29       | 131                    | 267,937        | 13,573              | 194                    | 346,281        | 15,467              | 185                    | 354,120        | 18,522              | 188                    | 342,270        | 7,114               |
| SLS30       | 652                    | 138,130        | 9,068               | 655                    | 153,706        | 8,448               | 649                    | 163,413        | 11,113              | 680                    | 151,127        | 9,208               |
| SLS31       | 41                     | 6,837          | 482                 | 44                     | 7,731          | 454                 | 44                     | 7,647          | 584                 | 45                     | 6,793          | 456                 |
| SLS32       | 330                    | 46,917         | 3,038               | 318                    | 55,015         | 2,853               | 310                    | 57,361         | 3,644               | 306                    | 58,852         | 3,316               |
| SLS33       | 175                    | 166,507        | 9,596               | 172                    | 194,032        | 9,270               | 171                    | 186,861        | 10,450              | 174                    | 172,229        | 9,140               |
| SLS34       | 891                    | 112,548        | 8,182               | 893                    | 118,257        | 7,357               | 877                    | 131,134        | 10,089              | 871                    | 118,423        | 8,141               |
| SLS35       | 1,314                  | 204,833        | 13,366              | 1,289                  | 197,481        | 11,394              | 1,279                  | 209,448        | 15,133              | 1,279                  | 188,442        | 12,055              |
| SLS36       | 550                    | 108,891        | 6,954               | 546                    | 121,076        | 6,716               | 537                    | 143,170        | 9,717               | 523                    | 131,117        | 8,030               |
| SLS37       | 141                    | 15,294         | 1,063               | 132                    | 13,413         | 857                 | 133                    | 16,374         | 1,277               | 131                    | 17,279         | 1,189               |
| SLS38       | 472                    | 108,034        | 7,069               | 491                    | 121,303        | 6,939               | 478                    | 136,698        | 9,593               | 477                    | 117,927        | 7,373               |
| SLS39       | 619                    | 28,829         | 2,266               | 573                    | 22,149         | 1,589               | 554                    | 25,211         | 2,242               | 554                    | 21,819         | 1,717               |
| SLS40       | 824                    | 13,020         | 926                 | 930                    | 7,534          | 489                 | 934                    | 7,671          | 597                 | 944                    | 6,169          | 395                 |
| SLS41       | 357                    | 10,143         | 694                 | 338                    | 8,767          | 511                 | 341                    | 9,316          | 677                 | 335                    | 8,184          | 542                 |
| SLS42       | 1,676                  | 41,075         | 2,931               | 1,537                  | 31,226         | 1,972               | 1,494                  | 33,849         | 2,643               | 1,494                  | 31,144         | 2,194               |
| SLS43       | 277                    | 10,827         | 745                 | 272                    | 9,792          | 606                 | 269                    | 12,087         | 906                 | 273                    | 9,654          | 665                 |
| SLS44       | 146                    | 1,028          | 94                  | 142                    | 1,159          | 97                  | 142                    | 1,672          | 164                 | 139                    | 1,351          | 126                 |
| SLS45       | 721                    | 48,366         | 2,898               | 705                    | 49,684         | 2,638               | 678                    | 56,575         | 3,618               | 679                    | 45,945         | 2,700               |
| SLS46       | 48                     | 19,201         | 1,200               | 7                      | 980            | 78                  | 6                      | 2,238          | 163                 | 6                      | 1,013          | 93                  |
| SLS47       | 405                    | 20,612         | 1,270               | 342                    | 19,162         | 1,017               | 334                    | 19,940         | 1,333               | 330                    | 17,904         | 1,066               |
| SLS48       | 4,227                  | 66,516         | 4,353               | 4,937                  | 75,416         | 4,209               | 5,912                  | 92,851         | 6,313               | 5,867                  | 86,116         | 5,391               |
| SLS49       | 1,308                  | 60,089         | 3,948               | 1,237                  | 75,457         | 4,347               | 1,231                  | 91,852         | 6,333               | 1,232                  | 75,953         | 4,632               |
| SLS50       | 2,619                  | 76,940         | 5,949               | 2,540                  | 71,163         | 4,946               | 2,467                  | 73,696         | 6,516               | 2,444                  | 62,835         | 4,974               |
| SLS51       | 1,632                  | 64,872         | 4,795               | 1,426                  | 55,677         | 3,561               | 1,397                  | 61,719         | 4,867               | 1,388                  | 55,700         | 4,004               |
| SLS52       | 1,145                  | 33,266         | 2,382               | 1,149                  | 40,417         | 2,550               | 1,131                  | 45,935         | 3,547               | 1,132                  | 37,809         | 2,679               |
| SLS53       | 641                    | 119,396        | 7,735               | 623                    | 103,626        | 6,139               | 607                    | 123,639        | 8,978               | 583                    | 103,838        | 6,806               |
| SLS54       | 1,795                  | 172,157        | 10,815              | 1,695                  | 189,563        | 10,303              | 1,664                  | 212,337        | 14,171              | 1,644                  | 183,667        | 11,036              |
| SLS55       | 2,358                  | 84,304         | 6,165               | 2,408                  | 89,973         | 5,699               | 2,405                  | 99,599         | 7,792               | 2,389                  | 89,092         | 6,227               |

|              |                |                  |                |                |                  |                |                |                  |                |                |                  |                |
|--------------|----------------|------------------|----------------|----------------|------------------|----------------|----------------|------------------|----------------|----------------|------------------|----------------|
| SLS56        | 968            | 13,715           | 1,147          | 962            | 16,782           | 1,209          | 932            | 20,083           | 1,748          | 909            | 15,873           | 1,250          |
| SLS57        | 1,268          | 29,871           | 2,331          | 1,243          | 34,429           | 2,353          | 1,228          | 41,807           | 3,481          | 1,231          | 34,728           | 2,608          |
| SLS58        | 4,526          | 150,911          | 11,663         | 4,426          | 165,239          | 11,276         | 4,360          | 204,341          | 16,713         | 4,375          | 161,170          | 12,232         |
| SLS59        | 5,110          | 106,374          | 8,113          | 4,977          | 124,346          | 8,294          | 4,856          | 152,843          | 12,335         | 4,846          | 122,633          | 8,982          |
| SLS60        | 784            | 37,786           | 2,694          | 708            | 30,475           | 1,936          | 708            | 34,793           | 2,712          | 709            | 29,503           | 2,108          |
| SLS61        | 170            | 4,639            | 351            | 161            | 5,172            | 338            | 154            | 5,755            | 462            | 153            | 5,051            | 360            |
| SLS62        | 78             | 5,491            | 399            | 67             | 957              | 70             | 65             | 1,026            | 90             | 65             | 728              | 61             |
| SLS63        | 140            | 21,797           | 1,456          | 107            | 3,835            | 251            | 105            | 4,514            | 359            | 106            | 3,362            | 251            |
| SLS64        | 815            | 15,150           | 1,148          | 784            | 20,852           | 1,306          | 781            | 27,885           | 2,083          | 769            | 19,010           | 1,362          |
| SLS65        | 20,636         | 502,475          | 36,611         | 21,181         | 584,161          | 37,378         | 21,020         | 676,552          | 53,296         | 21,166         | 589,951          | 41,925         |
| SLS66        | 1              | 41               | 3              | 1              | 35               | 2              | 1              | 33               | 4              | 1              | 50               | 3              |
| SLS67        | 270            | 14,364           | 1,046          | 258            | 10,689           | 718            | 250            | 12,372           | 1,015          | 228            | 9,263            | 704            |
| SLS68        | 0              | 0                | 0              | 0              | 0                | 0              | 0              | 0                | 0              | 0              | 0                | 0              |
| SLS69        | 8              | 200              | 16             | 7              | 200              | 13             | 7              | 231              | 18             | 6              | 221              | 14             |
| SLS70        | 843            | 85,015           | 5,800          | 884            | 79,064           | 4,711          | 872            | 98,144           | 7,042          | 872            | 76,529           | 5,067          |
| SLS71        | 0              | 1                | 0              | 0              | 0                | 0              | 0              | 0                | 0              | 0              | 0                | 0              |
| SLS72        | 3,104          | 30,211           | 2,703          | 3,014          | 29,312           | 2,350          | 2,976          | 34,834           | 3,414          | 2,942          | 27,604           | 2,445          |
| SLS73        | 4,015          | 76,256           | 5,779          | 3,915          | 82,972           | 5,451          | 3,897          | 98,326           | 7,877          | 3,943          | 83,707           | 6,001          |
| SLS74        | 6              | 43               | 4              | 6              | 30               | 4              | 6              | 23               | 4              | 5              | 6                | 3              |
| SLS75        | 3,120          | 49,468           | 4,078          | 3,039          | 40,207           | 2,992          | 2,986          | 41,190           | 3,839          | 2,984          | 35,853           | 2,996          |
| SLS76        | 847            | 5,681            | 534            | 818            | 4,759            | 406            | 799            | 5,258            | 550            | 786            | 4,329            | 406            |
| SLS77        | 8              | 13               | 1              | 8              | 14               | 1              | 7              | 19               | 1              | 7              | 4                | 0              |
| SLS78        | 371            | 8,324            | 687            | 413            | 11,261           | 796            | 404            | 13,780           | 1,203          | 335            | 8,416            | 668            |
| SLS79        | 3,103          | 67,422           | 5,274          | 2,983          | 75,895           | 5,338          | 2,998          | 103,427          | 8,780          | 2,985          | 79,884           | 6,184          |
| SLS80        | 2,960          | 176,111          | 11,712         | 2,982          | 200,459          | 11,845         | 2,980          | 258,231          | 18,343         | 2,986          | 201,523          | 13,223         |
| SLS81        | 427            | 4,692            | 367            | 414            | 2,600            | 212            | 406            | 3,345            | 328            | 404            | 2,460            | 227            |
| SLS82        | 2,161          | 322,846          | 22,089         | 2,217          | 333,820          | 20,397         | 2,243          | 337,112          | 25,440         | 2,243          | 353,996          | 23,871         |
| SLS83        | 1,091          | 27,727           | 2,181          | 1,084          | 31,880           | 2,213          | 1,051          | 39,433           | 3,323          | 1,065          | 30,184           | 2,319          |
| SLS84        | 115            | 8,071            | 567            | 106            | 10,073           | 611            | 106            | 12,137           | 874            | 107            | 9,264            | 626            |
| SLS85        | 0              | 0                | 0              | 0              | 0                | 0              | 0              | 0                | 0              | 0              | 0                | 0              |
| SLS86        | 3,719          | 68,837           | 5,956          | 3,602          | 55,548           | 4,541          | 3,564          | 65,448           | 6,504          | 3,611          | 56,207           | 5,139          |
| SLS87        | 996            | 25,443           | 1,928          | 964            | 21,621           | 1,500          | 939            | 24,417           | 2,093          | 925            | 19,925           | 1,535          |
| SLS88        | 161            | 1,023            | 84             | 166            | 602              | 50             | 160            | 637              | 65             | 170            | 622              | 57             |
| SLS89        | 1,772          | 34,876           | 2,625          | 1,696          | 24,715           | 1,728          | 1,702          | 27,000           | 2,343          | 1,738          | 24,797           | 1,933          |
| SLS90        | 16             | 23               | 3              | 14             | 15               | 1              | 14             | 21               | 3              | 14             | 5                | 0              |
| SLS91        | 1,039          | 52,921           | 3,662          | 1,751          | 60,349           | 3,762          | 1,797          | 71,843           | 5,411          | 1,788          | 59,406           | 4,076          |
| SLS92        | 543            | 26,461           | 1,722          | 469            | 25,888           | 1,466          | 456            | 30,670           | 2,097          | 467            | 27,206           | 1,739          |
| SLS93        | 36             | 8,821            | 567            | 31             | 8,268            | 476            | 30             | 8,448            | 599            | 32             | 7,907            | 507            |
| SLS94T99     | 20,077         | 325,002          | 24,543         | 20,285         | 253,705          | 18,002         | 21,166         | 315,414          | 27,570         | 22,068         | 320,172          | 24,647         |
| <b>TOTAL</b> | <b>120,645</b> | <b>5,369,423</b> | <b>365,465</b> | <b>121,112</b> | <b>5,547,415</b> | <b>329,587</b> | <b>121,985</b> | <b>6,279,940</b> | <b>457,961</b> | <b>122,866</b> | <b>5,610,122</b> | <b>359,136</b> |

NOTE: Due to accounting adjustments, the sum of revenues by SIC code may not match the final reported revenues.

**A. 7610.0700**
**Quarterly Report of Electricity Delivered to Ultimate Consumers Outside Minnesota, 2006**

| SIC<br>Code | 1st Quarter            |                |                     | 2nd Quarter            |                |                     | 3rd Quarter            |                |                     | 4th Quarter            |                |                     |
|-------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|------------------------|----------------|---------------------|
|             | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) | Number of<br>Customers | Sales<br>(Mwh) | Revenue<br>(000 \$) |
| SLS01T09    | 1,335                  | 19,745         | 1,440               | 1,431                  | 16,326         | 1,238               | 1,494                  | 20,109         | 1,624               | 1,510                  | 18,859         | 1,418               |
| SLS10T19    | 1,720                  | 13,918         | 1,116               | 1,731                  | 12,392         | 1,005               | 1,736                  | 14,133         | 1,257               | 1,738                  | 13,181         | 1,093               |
| SLS20       | 416                    | 153,899        | 8,371               | 417                    | 157,474        | 8,229               | 424                    | 166,720        | 9,719               | 414                    | 162,375        | 8,511               |
| SLS21       | 11                     | 33             | 3                   | 11                     | 31             | 3                   | 11                     | 34             | 3                   | 13                     | 27             | 5                   |
| SLS22       | 15                     | 1,395          | 97                  | 14                     | 1,155          | 83                  | 18                     | 1,358          | 100                 | 15                     | 1,137          | 87                  |
| SLS23       | 64                     | 2,967          | 217                 | 64                     | 2,843          | 210                 | 66                     | 3,484          | 279                 | 65                     | 2,621          | 187                 |
| SLS24       | 377                    | 42,790         | 2,826               | 381                    | 40,223         | 2,589               | 376                    | 39,678         | 2,746               | 377                    | 38,817         | 2,310               |
| SLS25       | 87                     | 2,875          | 224                 | 86                     | 2,631          | 203                 | 86                     | 2,764          | 229                 | 83                     | 2,610          | 188                 |
| SLS26       | 43                     | 85,676         | 3,931               | 45                     | 79,231         | 3,511               | 47                     | 84,844         | 4,011               | 48                     | 105,573        | 4,364               |
| SLS27       | 268                    | 12,660         | 880                 | 271                    | 12,548         | 877                 | 262                    | 15,190         | 1,148               | 260                    | 13,749         | 981                 |
| SLS28       | 73                     | 15,926         | 921                 | 69                     | 15,548         | 870                 | 79                     | 16,361         | 1,008               | 72                     | 17,021         | 1,079               |
| SLS29       | 25                     | 9,010          | 423                 | 25                     | 6,727          | 361                 | 26                     | 7,729          | 418                 | 26                     | 9,913          | 544                 |
| SLS30       | 194                    | 61,858         | 3,284               | 198                    | 62,861         | 3,272               | 194                    | 62,680         | 3,581               | 193                    | 63,079         | 3,253               |
| SLS31       | 10                     | 541            | 35                  | 10                     | 495            | 32                  | 9                      | 526            | 35                  | 9                      | 480            | 37                  |
| SLS32       | 149                    | 12,866         | 808                 | 153                    | 12,572         | 798                 | 155                    | 13,430         | 917                 | 151                    | 13,710         | 841                 |
| SLS33       | 29                     | 11,083         | 725                 | 29                     | 11,072         | 681                 | 30                     | 10,317         | 703                 | 30                     | 11,897         | 852                 |
| SLS34       | 218                    | 38,898         | 2,440               | 222                    | 35,752         | 2,177               | 223                    | 38,605         | 2,535               | 222                    | 36,614         | 2,138               |
| SLS35       | 388                    | 65,537         | 4,073               | 389                    | 65,576         | 3,949               | 392                    | 74,988         | 4,845               | 387                    | 67,287         | 4,042               |
| SLS36       | 129                    | 39,677         | 2,214               | 135                    | 41,310         | 2,237               | 138                    | 43,462         | 2,509               | 144                    | 40,919         | 2,247               |
| SLS37       | 64                     | 8,045          | 520                 | 63                     | 7,180          | 462                 | 60                     | 7,106          | 492                 | 57                     | 6,579          | 417                 |
| SLS38       | 38                     | 4,746          | 284                 | 40                     | 5,016          | 297                 | 39                     | 5,829          | 367                 | 41                     | 5,875          | 472                 |
| SLS39       | 138                    | 9,701          | 643                 | 143                    | 9,661          | 620                 | 146                    | 11,255         | 765                 | 146                    | 10,540         | 637                 |
| SLS40       | 592                    | 3,862          | 265                 | 592                    | 1,564          | 125                 | 597                    | 1,442          | 129                 | 601                    | 1,511          | 118                 |
| SLS41       | 145                    | 1,912          | 140                 | 146                    | 1,536          | 108                 | 142                    | 1,652          | 123                 | 143                    | 1,585          | 112                 |
| SLS42       | 1,514                  | 28,730         | 1,804               | 1,528                  | 23,808         | 1,524               | 1,539                  | 28,494         | 1,912               | 1,521                  | 26,658         | 1,527               |
| SLS43       | 214                    | 4,329          | 271                 | 214                    | 4,937          | 314                 | 215                    | 6,302          | 440                 | 213                    | 4,848          | 311                 |
| SLS44       | 92                     | 1,042          | 72                  | 93                     | 787            | 64                  | 100                    | 814            | 71                  | 98                     | 784            | 63                  |
| SLS45       | 462                    | 3,849          | 252                 | 462                    | 3,007          | 200                 | 466                    | 3,393          | 240                 | 461                    | 3,092          | 250                 |
| SLS46       | 33                     | 3,482          | 172                 | 32                     | 3,076          | 152                 | 33                     | 2,900          | 159                 | 34                     | 3,028          | 148                 |
| SLS47       | 128                    | 1,150          | 85                  | 124                    | 908            | 68                  | 122                    | 1,034          | 82                  | 121                    | 970            | 88                  |
| SLS48       | 2,108                  | 24,881         | 1,565               | 2,100                  | 23,648         | 1,467               | 2,119                  | 27,517         | 1,847               | 2,107                  | 24,068         | 1,527               |
| SLS49       | 1,294                  | 28,472         | 1,685               | 1,296                  | 27,988         | 1,647               | 1,294                  | 32,168         | 2,002               | 1,314                  | 32,493         | 1,898               |
| SLS50       | 933                    | 21,780         | 1,551               | 927                    | 18,763         | 1,354               | 928                    | 21,409         | 1,699               | 919                    | 19,976         | 1,435               |
| SLS51       | 949                    | 30,324         | 2,092               | 930                    | 28,550         | 1,938               | 913                    | 33,012         | 2,376               | 905                    | 30,801         | 2,009               |
| SLS52       | 635                    | 18,932         | 1,260               | 629                    | 18,328         | 1,206               | 625                    | 21,337         | 1,506               | 614                    | 19,618         | 1,243               |
| SLS53       | 447                    | 35,989         | 2,159               | 463                    | 35,833         | 2,210               | 470                    | 45,259         | 3,026               | 458                    | 38,430         | 2,374               |
| SLS54       | 759                    | 73,943         | 4,152               | 751                    | 73,456         | 4,086               | 752                    | 83,822         | 5,072               | 770                    | 77,716         | 4,270               |
| SLS55       | 1,514                  | 41,351         | 2,748               | 1,507                  | 37,484         | 2,481               | 1,505                  | 41,790         | 3,013               | 1,503                  | 38,890         | 2,520               |

|          |        |           |         |        |           |        |        |           |         |        |           |         |
|----------|--------|-----------|---------|--------|-----------|--------|--------|-----------|---------|--------|-----------|---------|
| SLS56    | 375    | 5,048     | 377     | 375    | 4,559     | 348    | 372    | 5,672     | 463     | 361    | 4,620     | 353     |
| SLS57    | 547    | 6,960     | 525     | 543    | 6,386     | 492    | 527    | 7,877     | 652     | 537    | 6,500     | 521     |
| SLS58    | 2,761  | 74,582    | 5,250   | 2,759  | 75,813    | 5,356  | 2,756  | 97,662    | 7,344   | 2,777  | 78,443    | 5,413   |
| SLS59    | 2,463  | 36,153    | 2,571   | 2,444  | 33,155    | 2,423  | 2,453  | 40,741    | 3,230   | 2,460  | 33,730    | 2,482   |
| SLS60    | 712    | 30,855    | 1,887   | 717    | 27,932    | 1,747  | 712    | 33,870    | 2,331   | 713    | 28,817    | 1,791   |
| SLS61    | 109    | 3,359     | 206     | 112    | 3,087     | 199    | 110    | 3,707     | 259     | 110    | 3,048     | 197     |
| SLS62    | 55     | 921       | 60      | 51     | 789       | 52     | 47     | 1,019     | 71      | 47     | 802       | 53      |
| SLS63    | 87     | 3,210     | 195     | 87     | 3,060     | 193    | 86     | 3,790     | 266     | 86     | 3,271     | 203     |
| SLS64    | 581    | 5,175     | 379     | 567    | 4,960     | 357    | 562    | 6,439     | 502     | 552    | 5,236     | 384     |
| SLS65    | 8,671  | 81,623    | 5,777   | 8,651  | 63,052    | 4,636  | 8,580  | 72,282    | 5,769   | 8,558  | 65,945    | 5,395   |
| SLS66    | 4      | 21        | 1       | 4      | 10        | 1      | 4      | 9         | 1       | 4      | 15        | 1       |
| SLS67    | 85     | 1,247     | 87      | 88     | 1,184     | 85     | 95     | 1,485     | 116     | 92     | 1,325     | 101     |
| SLS68    | 0      | 0         | 0       | 0      | 0         | 0      | 0      | 0         | 0       | 0      | 0         | 0       |
| SLS69    | 2      | 159       | 12      | 2      | 131       | 9      | 2      | 78        | 6       | 3      | 112       | 10      |
| SLS70    | 1,013  | 44,296    | 2,807   | 1,012  | 30,450    | 2,032  | 1,018  | 40,424    | 2,832   | 1,007  | 31,347    | 2,068   |
| SLS71    | 1      | 0         | 0       | 1      | 0         | 0      | 1      | 0         | 0       | 1      | 0         | 0       |
| SLS72    | 1,564  | 10,336    | 886     | 1,561  | 9,704     | 818    | 1,569  | 11,208    | 1,037   | 1,576  | 9,340     | 790     |
| SLS73    | 1,324  | 16,655    | 1,147   | 1,325  | 15,134    | 1,064  | 1,368  | 18,289    | 1,410   | 1,376  | 16,448    | 1,201   |
| SLS74    | 1      | 0         | 0       | 1      | 0         | 0      | 0      | 0         | 0       | 0      | 0         | 1       |
| SLS75    | 2,002  | 16,564    | 1,328   | 2,018  | 12,583    | 1,042  | 2,031  | 13,070    | 1,196   | 2,053  | 12,706    | 1,030   |
| SLS76    | 544    | 2,453     | 214     | 543    | 1,896     | 172    | 540    | 2,107     | 207     | 529    | 1,829     | 163     |
| SLS77    | 3      | 1         | 0       | 3      | 1         | 0      | 3      | 1         | 0       | 3      | 0         | 0       |
| SLS78    | 131    | 2,302     | 174     | 123    | 2,079     | 169    | 120    | 2,826     | 240     | 121    | 1,880     | 160     |
| SLS79    | 1,768  | 27,805    | 1,947   | 1,783  | 23,104    | 1,720  | 1,788  | 28,922    | 2,356   | 1,821  | 25,239    | 1,856   |
| SLS80    | 1,652  | 111,692   | 6,372   | 1,654  | 112,567   | 6,503  | 1,656  | 143,607   | 8,887   | 1,666  | 117,062   | 6,707   |
| SLS81    | 328    | 2,216     | 170     | 322    | 1,762     | 140    | 325    | 2,342     | 201     | 327    | 1,862     | 141     |
| SLS82    | 1,126  | 113,861   | 7,438   | 1,133  | 104,677   | 6,930  | 1,140  | 105,483   | 7,513   | 1,129  | 117,834   | 7,805   |
| SLS83    | 439    | 9,287     | 668     | 444    | 8,420     | 625    | 448    | 10,705    | 859     | 451    | 8,731     | 650     |
| SLS84    | 74     | 1,269     | 91      | 79     | 1,321     | 93     | 76     | 1,329     | 106     | 75     | 1,002     | 80      |
| SLS85    | 1      | 1         | 0       | 1      | 0         | 0      | 1      | 0         | 0       | 0      | 0         | 0       |
| SLS86    | 2,162  | 21,482    | 1,769   | 2,172  | 18,196    | 1,588  | 2,177  | 22,364    | 2,100   | 2,181  | 19,599    | 1,684   |
| SLS87    | 412    | 19,510    | 1,079   | 412    | 17,319    | 950    | 409    | 19,240    | 1,125   | 415    | 18,112    | 926     |
| SLS88    | 140    | 880       | 68      | 169    | 959       | 72     | 193    | 1,118     | 87      | 206    | 988       | 74      |
| SLS89    | 712    | 8,037     | 570     | 712    | 6,431     | 474    | 730    | 7,457     | 603     | 764    | 6,925     | 517     |
| SLS90    | 38     | 419       | 29      | 37     | 353       | 25     | 36     | 426       | 33      | 34     | 382       | 25      |
| SLS91    | 650    | 8,732     | 619     | 655    | 8,185     | 574    | 674    | 10,569    | 758     | 686    | 8,338     | 625     |
| SLS92    | 391    | 10,969    | 688     | 394    | 10,345    | 666    | 396    | 12,258    | 842     | 394    | 10,220    | 646     |
| SLS93    | 34     | 317       | 22      | 35     | 302       | 23     | 35     | 343       | 26      | 33     | 330       | 31      |
| SLS94T99 | 6,320  | 88,929    | 6,139   | 6,391  | 83,907    | 5,606  | 6,644  | 98,932    | 6,997   | 6,851  | 92,871    | 6,223   |
| TOTAL    | 56,892 | 1,705,200 | 107,300 | 57,101 | 1,596,110 | 99,832 | 57,515 | 1,820,598 | 123,413 | 57,782 | 1,702,240 | 105,903 |

NOTE: Due to accounting adjustments, the sum of revenues by SIC code may not match the final reported revenues.





## Appendix G-4. New Nuclear

Nuclear power plants in the United States are performing at historically high levels of safety and capacity factors. Seventy-two of the Country's 104 nuclear plants are currently in the Column 1 of the Nuclear Regulatory Commission's ("NRC's") Reactor Oversight Process ("ROP"), which reflects the best achievable rating by the NRC. The industry has an average capacity factor of 89.5% for the past five years, reflecting a decade-long improvement trend in nuclear plant reliability.

Our two nuclear power plants, the two-unit Prairie Island Nuclear Generating Plant near Red Wing, Minnesota and the single unit Monticello Nuclear Generating Plant near Monticello, Minnesota currently have all green indicators (the best achievable rating) in the NRC's ROP and have had record production years in 2003 and 2006 respectively. The combined capacity factors for these three reactors have exceeded 90% from 2002 through 2006. The NRC operating license for Monticello was renewed in November 2006 for a 20-year period to allow operation through 2030. We will submit the license renewal application for Prairie Island in 2008 to seek operation of these two units through 2033 and 2034 respectively. We also intend to seek power uprates for all three units over the next few years.

### Nuclear Facility History

The last few nuclear plants licensed and constructed in the late 1970's and 80's were marred by long construction delays and large cost overruns. It is with this experience in mind that nuclear utilities and investors are considering how to avoid these problems with the next generation of nuclear power plants.

Construction delays were caused by a number of factors including 1) lack of a standard design leading to frequent design changes; 2) regulatory changes as a result of the Three-Mile Island accident; and 3) a licensing process that required two-steps (a construction license and an operating license), a process that

allowed for intervenors to raise the same issues multiple-times during the licensing process.

In response to these issues the nuclear industry has adopted an approach where a select few designs will be pre-certified by the NRC. The certified design cannot be changed without the concurrence of the NRC. This will result in a smaller set of standardized or certified designs that will be stable during plant construction.

In addition, the safety improvements implemented after the Three-Mile Island accident and the lessons learned from thirty additional years of operation have resulted in improved safety and reliability performance of existing nuclear plants. These improvements have been incorporated into the advanced certified designs and as a result changes should not be required during construction.

Finally, the NRC has streamlined its licensing process by combining the construction and operating license phases into a single step. The new process still maintains the opportunity for public.

### **Legislative and Regulatory Environment**

The high levels of safety and capacity factors at nuclear facilities coupled with the fact that nuclear power plants are the nation's largest source of non-carbon emitting base-load electrical generation capability has caused existing nuclear utilities to pursue renewal of their operating licenses with the NRC. A renewed license extends operations by 20 additional years. The value of low cost, non-carbon emitting base load energy has encouraged electric utilities and other electric energy suppliers to consider construction of new nuclear powered electrical generation facilities.

Congress confirmed the value of adding nuclear power plants when they enacted the EPAct 2005. The provisions in this legislation are designed to encourage new nuclear power plant construction. These provisions include:

- An extension of the Price-Anderson Act until December 31, 2025. This provides an insurance structure for the nuclear industry limiting the exposure of individual licensees.
- Under Title XVII - - Incentives for Innovative Technologies, advanced nuclear energy facilities are one of a number of technologies eligible for loan guarantees up to 80% of the project cost. In order to qualify the project must employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued. Several of the new reactor designs discussed below have not been deployed in the United States and will remain eligible for loan guarantees until they are considered a commercial technology.
- The production tax credits for new nuclear power plants provide up to \$125 million total per year, estimated to be approximately 1.8 cents per kilowatt hour during the first eight years of operation for the first 6,000 MW of new nuclear capacity brought on line. The 1.8 cents per kilowatt-hour is consistent with the production tax credit provided for renewable energy resources.
- In response to the protracted licensing proceedings of the 1970's, the standby support provision provides for recovery of certain costs in the event of a delay due to failure of the NRC to comply with schedules for review and approval of inspections, tests, analyses, and acceptance criteria established or litigation that delays the commencement of full-power operations of the advanced nuclear facility. This protection provides 100% of the covered costs of delay up to \$500 million per contract for the first two new nuclear reactors and 50% of the covered costs of delay that occur after the initial 180-day period of the covered delay up to \$250 million per contract for the third through sixth new nuclear reactors constructed in the United States.

Several states (Florida, Louisiana and South Carolina) are offering incentives to develop new nuclear generation, hoping that nuclear power prices will be lower and less volatile than power generated by natural gas and do not contribute to global warming. State regulators also hope new nuclear plants will create jobs and bolster local industry. The main action being sought by nuclear operators is the ensured recovery of costs for new nuclear power plants, particularly pre-construction costs.

- The Louisiana Public Utility Commission has approved measures that would allow Entergy Corporation to pass on some pre-construction nuclear plant development costs to their customers.
- The Florida Public Utility Commission has approved measures that would allow Florida Power & Light to pass on some pre-construction nuclear plant development costs to their customers.
- The Georgia Public Service Commission is considering a similar measure as that approved in Florida.
- The South Carolina legislature passed a law that guarantees utilities can recover costs from the construction of nuclear and coal plants in the state.
- Duke Energy is working with lawmakers in North Carolina to pass a similar bill as was passed in South Carolina.

However, some states (Minnesota<sup>1</sup> and Wisconsin<sup>2</sup> included) currently have statutory prohibitions on the construction of new nuclear facilities.

The NRC has implemented a number of regulatory enhancements to streamline the process to obtain permission to construct and operate new nuclear power plants. Enhancements include NRC certification of plant designs, early-site permitting and a one-step construction and operating license

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<sup>1</sup> Minn. Stat. 216B.243 subd.3b(a).

<sup>2</sup> Wis. Stat. 196.493 subd. (2) is a statutory prohibition until a federally licensed storage facility is available.

approval process. These enhancements are intended to make the licensing process predictable, stable and to avoid the protracted proceedings experienced during the 1970s. The NRC currently expects 21 applications for 32 new nuclear units from 2007 through 2009. NRC received the first combined construction and operating license application for a new nuclear power plant in September 2007.

### **Nuclear Plant Design**

The first step in the licensing process is design certification by the NRC. Design certification addresses the safety issues of an essentially complete nuclear power plant design, independent of a specific site. It allows the industry to select from a certified set of standardized designs minimizing the costs associated with plant unique designs.

The NRC has certified three designs to date, the Advanced Boiling Water Reactor (“ABWR”) by General Electric, AP600 by Westinghouse and AP1000 by Westinghouse. Although the AP600 design was certified by the NRC, it was superseded by the AP1000 and is no longer being offered by Westinghouse.

Other vendors have also applied or will be applying to the NRC to have their designs certified. General Electric Company applied for certification of the Economic Simplified Boiling Water Reactor (“ESBWR”). The NRC is currently reviewing the application. Areva Nuclear Power has requested a pre-application review with the NRC for the U.S. Evolutionary Power Reactor (“US-EPR”). Areva’s application for certification is expected yet this year.

Vendors for four additional designs initiated pre-certification application discussions with the NRC. They include the Advanced Candu Reactor (“ACR-700”) by Atomic Energy of Canada, Limited (“AECL”), US Advanced Pressurized Water Reactor (“US-APWR”) by Mitsubishi Heavy Industries, Ltd., International Reactor Innovative and Secure (“IRIS”) by Westinghouse Electric Company and Pebble Bed Modular Reactor (“PBMR”).

Potential licensees have expressed their intentions to submit combined construction and operating license applications for the AP1000 (certified), ESBWR (certification in process), ABWR (certified), US-EPR (pre-certification) and US-APWR (pre-certification) in the 2007 to 2009 timeframe. These are the most likely designs that will be considered by potential licensees in the foreseeable future.

Table G4-1 below was compiled by the NRC based on expressions of intent to submit Combined Construction and Operating License applications in the timeframes shown.

Table G4-1 Expected New Nuclear Power Plant Applications  
As of September 11, 2007

| Company                                                                           | Design Type | Site Under Consideration              | State | Existing Operating Plants |
|-----------------------------------------------------------------------------------|-------------|---------------------------------------|-------|---------------------------|
| <b>2007 Applications</b>                                                          |             |                                       |       |                           |
| Duke                                                                              | AP1000      | William Lee Nuclear Station (2 units) | SC    | N                         |
| NuStart Energy                                                                    | AP1000      | Bellefonte (2 units)                  | AL    | N                         |
| Progress Energy                                                                   | AP1000      | Harris (2 units)                      | NC    | Y                         |
| Dominion                                                                          | ESBWR       | North Anna (1 unit)                   | VA    | Y                         |
| NuStart Energy                                                                    | ESBWR       | Grand Gulf (1 unit)                   | MS    | Y                         |
| South Carolina Electric & Gas                                                     | AP1000      | Summer (2 units)                      | SC    | Y                         |
| NRG Energy                                                                        | ABWR        | South Texas Project (2 units)         | TX    | Y                         |
| <b>2007 TOTAL NUMBER OF APPLICATIONS = 7</b><br><b>TOTAL NUMBER OF UNITS = 12</b> |             |                                       |       |                           |
| <b>2008 Applications</b>                                                          |             |                                       |       |                           |
| Progress Energy                                                                   | AP1000      | Levy County (2 units)                 | FL    | N                         |
| Southern Nuclear Operating Co.                                                    | AP1000      | Vogtle (2 units)                      | GA    | Y                         |
| Entergy                                                                           | ESBWR       | River Bend (1 unit)                   | LA    | Y                         |
| UNISTAR                                                                           | EPR         | Calvert Cliffs (1 unit)               | MD    | Y                         |
| PPL Generation                                                                    | EPR         | Susquehanna (1 unit)                  | PA    | Y                         |
| AmerenUE                                                                          | EPR         | Callaway (1 unit)                     | MO    | Y                         |
| UNISTAR                                                                           | EPR         | Nine Mile Point (1 unit)              | NY    | Y                         |
| TXU Power                                                                         | US APWR     | Comanche Peak (2 units)               | TX    | Y                         |
| Exelon                                                                            | TBD         | TBD (2 units)                         | TX    | UNK                       |

|                                                      |     |                                   |     |     |
|------------------------------------------------------|-----|-----------------------------------|-----|-----|
| Detroit Edison                                       | TBD | Fermi (1 unit)                    | MI  | Y   |
| Amarillo Power                                       | EPR | Vicinity of Amarillo<br>(2 units) | TX  | UNK |
| Alternate Energy<br>Holdings                         | EPR | Bruneau (1 unit)                  | ID  | N   |
| <b>2008 TOTAL NUMBER OF APPLICATIONS = 12</b>        |     |                                   |     |     |
| <b>TOTAL NUMBER OF UNITS = 17</b>                    |     |                                   |     |     |
| <b>2009 Applications</b>                             |     |                                   |     |     |
| Florida Power &<br>Light                             | TBD | TBD (2 units)                     | UNK | UNK |
| Unannounced                                          | TBD | TBD (1 unit)                      | UNK | UNK |
| <b>2009 TOTAL NUMBER OF APPLICATIONS = 2</b>         |     |                                   |     |     |
| <b>TOTAL NUMBER OF UNITS = 3</b>                     |     |                                   |     |     |
| <b>2007 – 2009 Total Number of Applications = 21</b> |     |                                   |     |     |
| <b>Total Number of Units = 32</b>                    |     |                                   |     |     |

### Nuclear Facility Cost

Two independent sources of information were used to estimate the projected costs for new nuclear power plants in the United States. Table D-2 depicts the costs and performance characteristics of a new nuclear power plant as reported by the Department of Energy's Energy Information Administration ("EIA") in their Assumptions to the Annual Energy Outlook 2007. A base overnight cost of \$1,802/kW was presented for a 1,350-megawatt new nuclear power plant in the EIA report. The EIA estimate is not based on any specific reactor technology. It is a blending of the new nuclear plant technologies available. Overnight cost is the cost of a construction project if no interest was incurred during construction, as if the project was completed "overnight."

The base overnight cost from the EIA report was compared to a proprietary report obtained from the Electric Power Research Institute ("EPRI"). EPRI's cost estimates reflect the best publicly available information as of December



2006. EPRI data provides a cost estimate specific to each reactor design. The average costs of the technologies provided by EPRI are consistent with base overnight costs reported in the EIA report.

If Minnesota were to remove the current prohibition on new nuclear energy or Xcel Energy were to pursue the construction of a new nuclear plant outside Minnesota, we believe three adjustments should be added to the cost estimate. These adjustments should be made to the base overnight costs to account for project and process contingencies (25%), owner costs (30%) and nuclear staffing costs (10%). These adjustments would bring the total overnight costs without Allowance for Funds Used During Construction (“AFUDC”) for new nuclear to approximately \$2,800/kW.

Production costs once a plant is in service are estimated in the EIA report to be \$63.88/kW for fixed O&M and 0.47 mills/kWh for variable O&M excluding fuel. For a 1,350-megawatt plant operating at a 92.5% capacity factor this would translate into fixed O&M costs of \$7.88/MWH and variable O&M costs excluding fuel of \$0.47/MWH, for total O&M costs of \$8.35/MWH. A capacity factor of 92.5% is a multi-year rolling average based on a 24-month fuel cycle with 25 day refueling outages and a 4% forced outage rate. The EIA estimate is not based on any specific technology. It is a blending of the new nuclear plant technologies available. The EIA costs were compared to the proprietary cost information provided by EPRI and were found to be similar. Comparable total O&M cost estimates excluding fuel for specific technologies range from \$7.80/MWH to \$10.35/MWH.

Nuclear fuel costs are experiencing significant upward pressure and price volatility in recent years. Nuclear fuel costs are forecast to peak in the 2013 timeframe with the prices coming down until 2018 and returning thereafter to a more normal rise at the rate of inflation. Based on our experience with the Monticello and Prairie Island plants, for a plant with a heat rate of 10,510 btu/kWh the fuel costs are forecast to range from \$9.60/MWH (low forecast)

to \$12.80/MWH (high forecast) in the 2020 timeframe with a mid-range forecast of \$11.40/MWH. These fuel costs include the one mil per kWh fee required by federal law to be paid to the federal government for the long term permanent management of the used nuclear fuel produced by the plant. Thus, the total production costs (fixed O&M, variable O&M and fuel) for a new nuclear unit in the 2020 timeframe would be in the range of \$18/MWH to \$21/MWH.

**Table G4-2 Cost and Performance Characteristics of Advanced Nuclear**

| Characteristic                              | Statistic |
|---------------------------------------------|-----------|
| Online Year                                 | 2014      |
| Size (mW)                                   | 1350      |
| Leadtimes (Years)                           | 6         |
| Base Overnight Costs In 2006<br>(\$2005/kW) | 1,802     |
| Project Contingency Factor                  | 1.10      |
| Technological Optimism Factor               | 1.05      |
| Base Overnight Cost In 2006<br>(\$2005/kW)  | 1802      |
| Variable O&M (\$2005 Mills/kWh)             | 0.47      |
| Fixed O&M (\$2005/kW)                       | 63.88     |
| Heatrate In 2006 (Btu/kWhr)                 | 10,400    |
| Heatrate nth-of-a-kind (Btr/kWhr)           | 10,400    |

### **Nuclear Facility History**

In addition to the standardized certified designs and streamlined licensing process, the nuclear industry has focused on shortening construction times by using a modular construction approach that allows more fabrication to be

completed by the vendor and is less dependence on field labor. This is augmented by advanced computer capabilities that utilize 3-dimensional software to allow the vendor to virtually assemble the plant to ensure constructability. Experience in constructing the new designs is being gained overseas validating the modular approach.

The challenges to constructing and predicting the costs of new nuclear power plants include the availability and rising costs of skilled labor, as well as, the lack of large production facilities in the United States that can produce heavy forgings such as the reactor vessel. However, these challenges are not unique to the nuclear industry and will be experienced by many future energy production alternatives

### **Spent Nuclear Fuel**

The Department of Energy ("DOE") is expected to submit its application to construct the Yucca Mountain Deep Geologic Repository to the NRC in the first half of 2008 (not later than June) to address the long-term management of spent nuclear fuel. The DOE currently projects that they could begin receiving waste at Yucca Mountain as early as 2017. Based on past history, we believe a more likely timeframe to begin accepting waste would be the 2020 timeframe.

### **Spent Fuel Status**

In September 2007, the Federal Court of Claims awarded Xcel Energy \$116 million of the \$172 million claim we filed seeking damages for the Federal Government's failure to take spent nuclear fuel. The Judge found in favor of all aspects of the damages claimed except for carrying charges and for security improvement costs incurred at Morris, Illinois storage facility. The claim was for damages incurred until 2004.

Xcel Energy also participates in pursuing temporary storage for interim spent fuel storage with the Private Fuel Storage ("PFS") project in Utah as we await the availability of the Yucca Mountain Permanent Repository. PFS is a

consortium of eight nuclear utilities working to build a spent fuel storage facility on the West Central Utah reservation of the Skull Valley Band of Goshute Indians. PFS and the Skull Valley Band of Goshute Indians entered into an agreement in December 1996 that allows for temporary storage of spent fuel for both the Prairie Island and Monticello Plants. The proposed facility is subject to licensing approval by the NRC.

The license application for the PFS Project was submitted to the NRC in June 1997 and the NRC issued a license for the interim storage facility on February 21, 2006. Due to the lengthy PFS licensing process, a number of participating companies had to construct on-site storage. The long-term viability of PFS only remains a credible alternative if the federal government fails to make continued progress with their obligation to take title and remove spent nuclear fuel from existing sites.

### **Conclusions Concerning Nuclear Plants**

The high level of safe, reliable and economical performance of existing nuclear power plants, the improvements made to the NRC's licensing process for new nuclear power plants, growing concerns over the potential affects of fossil fuel plants on global warming, and the industry's approach utilizing advanced standardized designs gives us confidence that new nuclear power will play a significant role in the nation's energy future. Additional confidence will be gained as the currently proposed projects begin to make their way through the regulatory and construction processes.

While this Resource Plan does not indicate the need for new base load energy within the 2008 – 2022 planning horizon at this time, we will continue to monitor the progress of the utilities and consortia that are actively pursuing bringing new nuclear power plants on-line. However, legislative changes lifting the prohibition of new nuclear power plants in Minnesota and Wisconsin would be necessary if the Company were to consider either of these states for a future nuclear plant.

**Appendix G-3**  
**Nuclear Worker**  
**Transition Plan**

## Appendix G-3. Worker Transition Plan

### Introduction

Minnesota Statute 216C.051 subdivision 3 requires the Company to submit updates of our Worker Transition Plan (“WTP”) as part of our Resource Plan filings as required under section 116C.772. The WTP is required to address the event of a shutdown of a nuclear generating plant for longer than six months.

The 1995 WTP reported the conditions that could lead to a short lead-time reactive worker transition due to an unplanned immediate shutdown were not typical of any scenarios facing Minnesota. Minnesota’s Monticello and Prairie Island Nuclear Generating Plants have a long history of being well-maintained resulting in safe, reliable and economic operations. The WTP described in 1995 assumed a long lead-time proactive approach. Monticello and Prairie Island continue to have strong operating records and are expected to operate until the end of the current operating licenses that expire in 2030, 2013 and 2014 respectively and potentially until 2033 for PI Unit 1 and 2034 for PI Unit 2 if approvals are received for renewal of the operating licenses and additional dry spent fuel storage capacity. This update continues to assume the long lead-time proactive approach to a WTP.

Since the WTP was last submitted on July 2, 2007, Xcel Energy has become the sole owner of the Nuclear Management Company, LLC (“NMC”) and a decision has been made to transfer the NRC operating licenses back to the Company, to transfer NMC’s employees back to Xcel Energy upon license transfer and to dissolve the NMC. In preparation for the eventual transfer of employees to the Company, NMC employees will be transferred to Xcel Energy’s benefits programs and will be subject to Xcel Energy’s human resource policies on January 1, 2008. The impact on the WTP is that the NMC human resource policies are no longer applicable and all Xcel Energy and NMC

employees as of January 1, 2008 will fall under Xcel Energy's Human Resource policies as described in this document.

### **Transition Plan Philosophy**

The state and federal reviews necessary to extend Monticello's operating life by 20 years were recently completed. Monticello will now reach the end of its current operating license in 23 years. Prairie Island's units 1 and 2 reach the end of their respective current operating licenses in 6 and 7 years. Xcel Energy has directed NMC to pursue those actions necessary to extend Prairie Island's operating life by an additional 20 years. If approvals for renewing the operating licenses and additional dry spent fuel storage are received for Prairie Island, the lifetimes of these units will be 26 and 27 years respectively. These long lead times and Xcel Energy's commitment to employees affords the opportunity to plan for the employee transition that results from a plant closure. Xcel Energy will continue to base staffing decisions on operational excellence and NRC requirements that may result in changed staff assignments and levels.

The Monticello and Prairie Island nuclear generating plants are operated by dedicated nuclear professionals. A long lead time, the fact that many workers will reach retirement age near the end of the current licenses and a strong management commitment are critical to the success of the Xcel Energy WTP. This strategy provides employees the opportunity to develop their skill inventories so they are congruent with the changing needs of the Company and the marketplace.

The proactive approach to managing the human resource produces a work force that is motivated, cross-functional and flexible. This approach greatly reduces the need for reactive planning.

Should Prairie Island or Monticello close there are four transition paths available to employees. They are:

1. Stay with Xcel Energy in a similar job/career path.
2. Stay with Xcel Energy in a different job/career path.
3. Retire.
4. Leave Xcel Energy for outside employment opportunities.

The proactive strategy for managing human resources allows employees to prepare for each path, and thus position themselves for a number of potential outcomes. Xcel Energy acknowledges that a proactive transition requires prior planning, total management support, complete understanding and support throughout all levels of the corporation and a comprehensive guiding process.

Between 450 to 500 permanent, skilled positions would be eliminated or restructured should Monticello or Prairie Island close. Providing employees with avenues to enhance their skills prior to plant closing will make the transition to new jobs (inside or outside of Xcel Energy) easier, but not painless. Xcel Energy's objective is to structure and develop its work force to meet the challenges inherent in a competitive business environment. That objective will be accomplished by:

1. Establishing Business Plan workforce effectiveness goals.
2. Translating those goals into an effective Human Asset Plan
3. Producing employee development plans.



Xcel Energy values their employees and recognizes that they make the nuclear operations excellent. Xcel Energy has an obligation to help employees plan for the future. The result of planning will be a partnership that yields strong nuclear operations and satisfied employees.

**Table G-3-1**  
**Nuclear Management Company Employee Information<sup>1</sup>**

| <b>Monticello and Prairie Island Employees<br/>Occupational Study Summary</b> |                          |                                |
|-------------------------------------------------------------------------------|--------------------------|--------------------------------|
| <b>Job Title</b>                                                              | <b>Location</b>          | <b>Number of<br/>Employees</b> |
| Analyst Engineering                                                           | Monticello Nuclear Plant | 2                              |
| Analyst Engineering Support                                                   | Monticello Nuclear Plant | 1                              |
| Assistant Business Process I                                                  | Monticello Nuclear Plant | 1                              |
| Assistant Business Process II                                                 | Monticello Nuclear Plant | 1                              |
| Assistant Business Process III                                                | Monticello Nuclear Plant | 8                              |
| Assistant Business Process IV                                                 | Monticello Nuclear Plant | 8                              |
| Assistant Executive                                                           | Monticello Nuclear Plant | 1                              |
| Assistant Human Resources                                                     | Monticello Nuclear Plant | 1                              |
| Assistant Manager Operations                                                  | Monticello Nuclear Plant | 1                              |
| Bus Process Assistant III                                                     | Monticello Nuclear Plant | 2                              |
| Business Process Assistant II                                                 | Monticello Nuclear Plant | 1                              |
| Coop Engineer                                                                 | Monticello Nuclear Plant | 4                              |
| Coordinator Construction                                                      | Monticello Nuclear Plant | 2                              |
| Coordinator Executive                                                         | Monticello Nuclear Plant | 1                              |
| Coordinator Maintenance Support                                               | Monticello Nuclear Plant | 1                              |
| Coordinator Performance Assessment                                            | Monticello Nuclear Plant | 2                              |
| Coordinator Work Week                                                         | Monticello Nuclear Plant | 4                              |
| Cycle Scheduler                                                               | Monticello Nuclear Plant | 1                              |
| Director Engineering Site                                                     | Monticello Nuclear Plant | 1                              |
| Engineer                                                                      | Monticello Nuclear Plant | 2                              |
| Engineer I                                                                    | Monticello Nuclear Plant | 10                             |
| Engineer II                                                                   | Monticello Nuclear Plant | 5                              |
| Engineer Senior                                                               | Monticello Nuclear Plant | 1                              |
| Engineering Analyst                                                           | Monticello Nuclear Plant | 1                              |
| Engineering Support Analyst                                                   | Monticello Nuclear Plant | 1                              |
| Engineering Support Analyst                                                   | Monticello Nuclear Plant | 1                              |
| Fire Protection Coordinator                                                   | Monticello Nuclear Plant | 1                              |
| Foreperson Chemistry                                                          | Monticello Nuclear Plant | 1                              |

<sup>1</sup> The NMC employees listed in this table will become Northern States Power Minnesota employees upon the successful transfer of the NRC operating licenses for Monticello and Prairie Island from NMC to Northern States Power Company Minnesota.

| Monticello and Prairie Island Employees<br>Occupational Study Summary |                          |                     |
|-----------------------------------------------------------------------|--------------------------|---------------------|
| Job Title                                                             | Location                 | Number of Employees |
| Foreperson Radiation Protection                                       | Monticello Nuclear Plant | 2                   |
| General Supervisor Chemistry                                          | Monticello Nuclear Plant | 1                   |
| General Supervisor Facilities/FIN                                     | Monticello Nuclear Plant | 1                   |
| General Supervisor Instrument & Control                               | Monticello Nuclear Plant | 1                   |
| General Supervisor Maintenance                                        | Monticello Nuclear Plant | 1                   |
| General Supervisor Maintenance Support                                | Monticello Nuclear Plant | 1                   |
| General Supervisor Operations Training                                | Monticello Nuclear Plant | 1                   |
| General Supervisor Rad Protection/Chem S                              | Monticello Nuclear Plant | 1                   |
| General Supervisor Radiation Protection                               | Monticello Nuclear Plant | 1                   |
| General Supervisor Training Maint/Tech                                | Monticello Nuclear Plant | 1                   |
| INPO Loanee                                                           | Monticello Nuclear Plant | 1                   |
| Inspector Quality Control                                             | Monticello Nuclear Plant | 1                   |
| Instructor                                                            | Monticello Nuclear Plant | 3                   |
| Instructor Operations                                                 | Monticello Nuclear Plant | 4                   |
| Instructor Ops/Simulator Senior                                       | Monticello Nuclear Plant | 1                   |
| Instructor Senior                                                     | Monticello Nuclear Plant | 1                   |
| Instructor Simulator/Operations                                       | Monticello Nuclear Plant | 1                   |
| Instructor Technical                                                  | Monticello Nuclear Plant | 1                   |
| Instructor Technical Principal                                        | Monticello Nuclear Plant | 2                   |
| Intern Engineer                                                       | Monticello Nuclear Plant | 1                   |
| Intern Engineering                                                    | Monticello Nuclear Plant | 3                   |
| Lead Planner                                                          | Monticello Nuclear Plant | 2                   |
| Manager Business & Strategic Planning                                 | Monticello Nuclear Plant | 1                   |
| Manager Emergency Preparedness                                        | Monticello Nuclear Plant | 1                   |
| Manager Engineering Design                                            | Monticello Nuclear Plant | 1                   |
| Manager Engineering Plant & Systems                                   | Monticello Nuclear Plant | 2                   |
| Manager Engineering Programs                                          | Monticello Nuclear Plant | 1                   |
| Manager Information Technology                                        | Monticello Nuclear Plant | 1                   |
| Manager Maintenance                                                   | Monticello Nuclear Plant | 1                   |
| Manager Nuclear Oversight                                             | Monticello Nuclear Plant | 1                   |
| Manager Nuclear Safety Assurance                                      | Monticello Nuclear Plant | 1                   |
| Manager of Projects                                                   | Monticello Nuclear Plant | 2                   |
| Manager On-Line                                                       | Monticello Nuclear Plant | 1                   |
| Manager Operations                                                    | Monticello Nuclear Plant | 2                   |
| Manager Operations Support                                            | Monticello Nuclear Plant | 1                   |
| Manager Outage                                                        | Monticello Nuclear Plant | 1                   |
| Manager Plant                                                         | Monticello Nuclear Plant | 1                   |
| Manager Production                                                    | Monticello Nuclear Plant | 1                   |
| Manager Project                                                       | Monticello Nuclear Plant | 2                   |
| Manager Radiation Protection & Chemistry                              | Monticello Nuclear Plant | 1                   |
| Manager Security                                                      | Monticello Nuclear Plant | 1                   |

| Monticello and Prairie Island Employees<br>Occupational Study Summary |                          |                     |
|-----------------------------------------------------------------------|--------------------------|---------------------|
| Job Title                                                             | Location                 | Number of Employees |
| Manager Shift                                                         | Monticello Nuclear Plant | 8                   |
| Manager Supply Chain                                                  | Monticello Nuclear Plant | 1                   |
| Manager Training                                                      | Monticello Nuclear Plant | 1                   |
| Manager Work Control Center                                           | Monticello Nuclear Plant | 1                   |
| Operations Support Manager                                            | Monticello Nuclear Plant | 1                   |
| Planner                                                               | Monticello Nuclear Plant | 9                   |
| Principal Analyst Engineering                                         | Monticello Nuclear Plant | 5                   |
| Principal Analyst Information Technology                              | Monticello Nuclear Plant | 1                   |
| Principal Assessor Quality Assurance                                  | Monticello Nuclear Plant | 2                   |
| Principal Engineer                                                    | Monticello Nuclear Plant | 7                   |
| Principal Health Physicist                                            | Monticello Nuclear Plant | 1                   |
| Principal Instructor Operations                                       | Monticello Nuclear Plant | 1                   |
| Principal Instructor Simulator/Operation                              | Monticello Nuclear Plant | 1                   |
| Principal Instructor Technical                                        | Monticello Nuclear Plant | 1                   |
| Projects Manager Senior (Supervisor)                                  | Monticello Nuclear Plant | 1                   |
| Radiation Protection Specialists                                      | Monticello Nuclear Plant | 4                   |
| Radiation Protection Waste Specialist                                 | Monticello Nuclear Plant | 1                   |
| Regulatory Affairs Manager                                            | Monticello Nuclear Plant | 1                   |
| Scheduler                                                             | Monticello Nuclear Plant | 3                   |
| Scheduler Operations                                                  | Monticello Nuclear Plant | 2                   |
| Scheduler Outage                                                      | Monticello Nuclear Plant | 1                   |
| Scheduler Project                                                     | Monticello Nuclear Plant | 1                   |
| Scheduler Work Control Center                                         | Monticello Nuclear Plant | 2                   |
| Senior Analyst Engineering                                            | Monticello Nuclear Plant | 8                   |
| Senior Analyst Information Technology                                 | Monticello Nuclear Plant | 2                   |
| Senior Buyer                                                          | Monticello Nuclear Plant | 1                   |
| Senior Chemist                                                        | Monticello Nuclear Plant | 2                   |
| Senior Consultant Security                                            | Monticello Nuclear Plant | 2                   |
| Senior Coordinator Emergency Preparedness                             | Monticello Nuclear Plant | 4                   |
| Senior Coordinator Project                                            | Monticello Nuclear Plant | 4                   |
| Senior Engineer                                                       | Monticello Nuclear Plant | 26                  |
| Senior Health Physicist                                               | Monticello Nuclear Plant | 2                   |
| Senior Inspector Quality Control                                      | Monticello Nuclear Plant | 2                   |
| Senior Instructor                                                     | Monticello Nuclear Plant | 1                   |
| Senior Instructor Operations                                          | Monticello Nuclear Plant | 3                   |
| Senior Instructor Simulator/Operations                                | Monticello Nuclear Plant | 4                   |
| Senior Instructor Technical                                           | Monticello Nuclear Plant | 6                   |
| Senior Manager Project                                                | Monticello Nuclear Plant | 3                   |
| Senior Representative Site Payroll                                    | Monticello Nuclear Plant | 1                   |
| Specialist Business Planning                                          | Monticello Nuclear Plant | 1                   |
| Specialist Fleet Assessment                                           | Monticello Nuclear Plant | 3                   |

| Monticello and Prairie Island Employees<br>Occupational Study Summary |                          |                     |
|-----------------------------------------------------------------------|--------------------------|---------------------|
| Job Title                                                             | Location                 | Number of Employees |
| Specialist Procedures                                                 | Monticello Nuclear Plant | 3                   |
| Specialist Radiation Protection                                       | Monticello Nuclear Plant | 13                  |
| Specialist RP/Chemistry                                               | Monticello Nuclear Plant | 4                   |
| Supervisor Administrative Support                                     | Monticello Nuclear Plant | 1                   |
| Supervisor Assessment                                                 | Monticello Nuclear Plant | 1                   |
| Supervisor Control Room                                               | Monticello Nuclear Plant | 18                  |
| Supervisor Document Control                                           | Monticello Nuclear Plant | 1                   |
| Supervisor Engineering                                                | Monticello Nuclear Plant | 11                  |
| Supervisor Facilities                                                 | Monticello Nuclear Plant | 1                   |
| Supervisor Instrument & Control                                       | Monticello Nuclear Plant | 3                   |
| Supervisor Maintenance                                                | Monticello Nuclear Plant | 6                   |
| Supervisor Materials Management                                       | Monticello Nuclear Plant | 1                   |
| Supervisor Performance Assessment                                     | Monticello Nuclear Plant | 1                   |
| Supervisor Planning                                                   | Monticello Nuclear Plant | 2                   |
| Supervisor Refueling Project                                          | Monticello Nuclear Plant | 1                   |
| Supervisor Training Operations                                        | Monticello Nuclear Plant | 2                   |
| Technician Medical                                                    | Monticello Nuclear Plant | 1                   |
| Vice President Site                                                   | Monticello Nuclear Plant | 1                   |
| Writer Operations Procedure                                           | Monticello Nuclear Plant | 4                   |
| Advisor Shift Technical                                               | Prairie Island           | 2                   |
| Analyst Engineering                                                   | Prairie Island           | 4                   |
| Analyst Information Technology                                        | Prairie Island           | 1                   |
| Analyst Radiation Protection                                          | Prairie Island           | 1                   |
| Analyst Regulatory                                                    | Prairie Island           | 1                   |
| Analyst Supply Chain                                                  | Prairie Island           | 1                   |
| Assessor Quality Assurance                                            | Prairie Island           | 2                   |
| Assistant Business Process II                                         | Prairie Island           | 1                   |
| Assistant Business Process III                                        | Prairie Island           | 21                  |
| Assistant Business Process IV                                         | Prairie Island           | 8                   |
| Assistant Executive                                                   | Prairie Island           | 3                   |
| Bus Process Assistant II                                              | Prairie Island           | 2                   |
| Buyer                                                                 | Prairie Island           | 3                   |
| Chemist                                                               | Prairie Island           | 2                   |
| Control Room Supervisor                                               | Prairie Island           | 1                   |
| Coordinator Construction                                              | Prairie Island           | 1                   |
| Coordinator Cycle                                                     | Prairie Island           | 2                   |
| Coordinator Emergency Preparedness                                    | Prairie Island           | 2                   |
| Coordinator Fire Protection                                           | Prairie Island           | 1                   |
| Coordinator Performance Assessment                                    | Prairie Island           | 1                   |
| Coordinator PM/Surveillance                                           | Prairie Island           | 1                   |
| Coordinator Scheduling                                                | Prairie Island           | 1                   |

| Monticello and Prairie Island Employees<br>Occupational Study Summary |                |                        |
|-----------------------------------------------------------------------|----------------|------------------------|
| Job Title                                                             | Location       | Number of<br>Employees |
| Coordinator Technical Publishing                                      | Prairie Island | 1                      |
| Coordinator Work Week                                                 | Prairie Island | 1                      |
| Director Engineering Site                                             | Prairie Island | 1                      |
| Director Site Operations                                              | Prairie Island | 1                      |
| Engineer                                                              | Prairie Island | 15                     |
| Engineer I                                                            | Prairie Island | 4                      |
| Engineer II                                                           | Prairie Island | 9                      |
| General Supervisor Chemistry                                          | Prairie Island | 1                      |
| General Supervisor Facilities/FIN                                     | Prairie Island | 1                      |
| General Supervisor Instrument & Control                               | Prairie Island | 1                      |
| General Supervisor Maintenance                                        | Prairie Island | 1                      |
| General Supervisor Maintenance (Elec)                                 | Prairie Island | 1                      |
| General Supervisor Maintenance Support                                | Prairie Island | 1                      |
| General Supervisor Operations Training                                | Prairie Island | 1                      |
| General Supervisor Radiation Protection                               | Prairie Island | 3                      |
| General Supervisor Training Maint/Tech                                | Prairie Island | 1                      |
| INPO Loanee                                                           | Prairie Island | 1                      |
| Instructor                                                            | Prairie Island | 3                      |
| Instructor Operations                                                 | Prairie Island | 2                      |
| Intern Engineer                                                       | Prairie Island | 1                      |
| Intern Information Technology                                         | Prairie Island | 1                      |
| Lead Planner                                                          | Prairie Island | 2                      |
| Manager Business & Strategic Planning                                 | Prairie Island | 2                      |
| Manager Business Support                                              | Prairie Island | 1                      |
| Manager Emergency Preparedness                                        | Prairie Island | 1                      |
| Manager Engineering Design                                            | Prairie Island | 1                      |
| Manager Engineering Plant & Systems                                   | Prairie Island | 1                      |
| Manager Engineering Programs                                          | Prairie Island | 2                      |
| Manager Human Resources                                               | Prairie Island | 1                      |
| Manager Information Technology                                        | Prairie Island | 1                      |
| Manager Maintenance                                                   | Prairie Island | 1                      |
| Manager Nuclear Safety Assurance                                      | Prairie Island | 1                      |
| Manager of Projects                                                   | Prairie Island | 1                      |
| Manager On-Line                                                       | Prairie Island | 1                      |
| Manager Operations                                                    | Prairie Island | 1                      |
| Manager Plant                                                         | Prairie Island | 1                      |
| Manager Procedures                                                    | Prairie Island | 1                      |
| Manager Production                                                    | Prairie Island | 1                      |
| Manager Project                                                       | Prairie Island | 7                      |
| Manager Radiation Protection & Chemistry                              | Prairie Island | 1                      |
| Manager Safety & Health                                               | Prairie Island | 2                      |

| Monticello and Prairie Island Employees<br>Occupational Study Summary |                |                     |
|-----------------------------------------------------------------------|----------------|---------------------|
| Job Title                                                             | Location       | Number of Employees |
| Manager Security                                                      | Prairie Island | 1                   |
| Manager Shift                                                         | Prairie Island | 12                  |
| Manager Supply Chain                                                  | Prairie Island | 1                   |
| Manager Training                                                      | Prairie Island | 1                   |
| Manager Work Control Center                                           | Prairie Island | 1                   |
| Manager Work Week                                                     | Prairie Island | 6                   |
| Nurse                                                                 | Prairie Island | 1                   |
| Planner                                                               | Prairie Island | 14                  |
| Principal Analyst Engineering                                         | Prairie Island | 6                   |
| Principal Assessor Quality Assurance                                  | Prairie Island | 3                   |
| Principal Coordinator Emergency Prepared                              | Prairie Island | 1                   |
| Principal Coordinator Performance Assessment                          | Prairie Island | 1                   |
| Principal Engineer                                                    | Prairie Island | 11                  |
| Principal Health Physicist                                            | Prairie Island | 1                   |
| Principal Instructor Operations                                       | Prairie Island | 1                   |
| Principal Instructor Simulator/Operation                              | Prairie Island | 4                   |
| Principal Instructor Technical                                        | Prairie Island | 6                   |
| Project Manager Senior Supervisor                                     | Prairie Island | 1                   |
| Regulatory Affairs Manager                                            | Prairie Island | 1                   |
| Representative Site Payroll                                           | Prairie Island | 2                   |
| Scheduler                                                             | Prairie Island | 4                   |
| Scheduler Project                                                     | Prairie Island | 1                   |
| Scheduler Work Control Center                                         | Prairie Island | 2                   |
| Senior Advisor Technical                                              | Prairie Island | 7                   |
| Senior Analyst Engineering                                            | Prairie Island | 11                  |
| Senior Analyst Information Technology                                 | Prairie Island | 2                   |
| Senior Analyst Radiation Protection                                   | Prairie Island | 1                   |
| Senior Chemist                                                        | Prairie Island | 3                   |
| Senior Consultant Security                                            | Prairie Island | 2                   |
| Senior Coordinator Performance Assessment                             | Prairie Island | 3                   |
| Senior Engineer                                                       | Prairie Island | 30                  |
| Senior Inspector Quality Control                                      | Prairie Island | 3                   |
| Senior Instructor                                                     | Prairie Island | 1                   |
| Senior Instructor Operations                                          | Prairie Island | 4                   |
| Senior Instructor Simulator/Operations                                | Prairie Island | 4                   |
| Senior Instructor Technical                                           | Prairie Island | 13                  |
| Senior Manager Project                                                | Prairie Island | 1                   |
| Senior Specialist Radiation Protection                                | Prairie Island | 6                   |
| Senior Technician Chemistry                                           | Prairie Island | 7                   |
| Specialist Business Planning                                          | Prairie Island | 2                   |
| Specialist Planning                                                   | Prairie Island | 1                   |

| <b>Monticello and Prairie Island Employees<br/>Occupational Study Summary</b> |                                                                  |                                |
|-------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------|
| <b>Job Title</b>                                                              | <b>Location</b>                                                  | <b>Number of<br/>Employees</b> |
| Specialist Procedures                                                         | Prairie Island                                                   | 1                              |
| Specialist Radiation Protection                                               | Prairie Island                                                   | 11                             |
| Supervisor Administrative Support                                             | Prairie Island                                                   | 1                              |
| Supervisor Business                                                           | Prairie Island                                                   | 1                              |
| Supervisor Control Room                                                       | Prairie Island                                                   | 22                             |
| Supervisor Document Control                                                   | Prairie Island                                                   | 1                              |
| Supervisor Engineering                                                        | Prairie Island                                                   | 18                             |
| Supervisor Facilities                                                         | Prairie Island                                                   | 1                              |
| Supervisor Instrument & Control                                               | Prairie Island                                                   | 2                              |
| Supervisor Maintenance                                                        | Prairie Island                                                   | 1                              |
| Supervisor Maintenance                                                        | Prairie Island                                                   | 10                             |
| Supervisor Materials Management                                               | Prairie Island                                                   | 1                              |
| Supervisor Performance Assessment                                             | Prairie Island                                                   | 1                              |
| Supervisor Procedures                                                         | Prairie Island                                                   | 1                              |
| Supervisor Radiation Protection                                               | Prairie Island                                                   | 2                              |
| Supervisor Refueling Project                                                  | Prairie Island                                                   | 1                              |
| Supervisor Steam Generator Project                                            | Prairie Island                                                   | 1                              |
| Supervisor Training Maintenance/Technical                                     | Prairie Island                                                   | 2                              |
| Supervisor Training Operations                                                | Prairie Island                                                   | 2                              |
| Supervisor Work Control Center                                                | Prairie Island                                                   | 1                              |
| Technician Chemistry                                                          | Prairie Island                                                   | 4                              |
| Technician Medical                                                            | Prairie Island                                                   | 1                              |
| Vice President Site                                                           | Prairie Island                                                   | 1                              |
| Writer Operations Procedure                                                   | Prairie Island                                                   | 1                              |
|                                                                               |                                                                  |                                |
|                                                                               | <b>Total Monticello</b>                                          | <b>327</b>                     |
|                                                                               | <b>Total Prairie Island</b>                                      | <b>414</b>                     |
|                                                                               |                                                                  |                                |
|                                                                               | <b>Total NMC Prairie<br/>Island and Monticello<br/>Employees</b> | <b>741</b>                     |

## **Xcel Energy Transition Processes**

The transition processes described below apply to Xcel Energy's union craft employees at the Monticello and Prairie Island and will apply to NMC's employees effective January 1, 2008. For union craft employees the transition plan for them is in accordance with the collective bargaining agreement, and Xcel Energy programs/processes as described below.

### *Internal Placement*

- *Job Opportunity Bulletin.* Xcel Energy provides on line notification of employment and career development opportunities in all new or replacement positions. This process, in accordance with our collective bargaining agreement, is used prior to outside hiring.
- *Supervisor Candidate Pool Program.* Xcel Energy has a program in place to identify employees interested in becoming a member of the Xcel Energy management team, and provides assessment and development to them. All union employees are invited to participate.

### *Corporate Training Programs*

Xcel Energy offers employees training and development courses for skills needed to stay current in their present job and development courses to prepare them for future positions. This training covers technical, computer and business skills.

- *Apprenticeship Training Programs.* An apprentice is a person engaged in training for one of the skill areas covered in the current labor agreement. Programs are State of Minnesota registered and provide on-the-job training and related instruction in all areas of the apprenticeship being served.
- *Tuition Reimbursement.* The Tuition Reimbursement Program gives employees financial assistance to take courses offered by accredited



schools and institutions of higher learning to complete a degree program.

*Severance*

The severance pay agreement for bargaining unit employees is covered in the current labor agreements with IBEW locals 160 and 949.

**Table G-3-2**  
**Xcel Energy's**  
**Monticello and Prairie Island Employees**  
**Occupational Study Summary**

| <b>Job Title</b>               | <b>Department</b>       | <b>Monticello Nuclear Plant</b> | <b>Prairie Island Nuclear Plant</b> | <b>Total</b> |
|--------------------------------|-------------------------|---------------------------------|-------------------------------------|--------------|
| ATTENDANT*1ST SIX MO NUC PLT S | Admin Services & Safety |                                 | 1                                   | 1            |
| ATTENDANT*2ND SIX MO NUC PLT S | Admin Services & Safety |                                 | 1                                   | 1            |
| ATTENDANT*6TH SIX MO NUC PLT S | Admin Services & Safety |                                 | 2                                   | 2            |
| ATTENDANT*LEAD NUCLEAR PLANT S | Radiation Protection    |                                 | 3                                   | 3            |
| ATTENDANT*NUC PLT SRVCS FIREWA | Admin Services & Safety |                                 | 1                                   | 1            |
| ATTENDANT*NUC PLT SRVCS FIREWA | Radiation Protection    |                                 | 1                                   | 1            |
| ATTENDANT*NUCLEAR APPRENTICE P | Operations              | 7                               |                                     | 7            |
| ATTENDANT*NUCLEAR PLANT        | Operations              | 11                              | 17                                  | 28           |
| ATTENDANT*NUCLEAR PLANT SERVIC | Radiation Protection    |                                 | 15                                  | 15           |
| CARPENTER                      | Monticello Construction | 4                               |                                     | 4            |
| CARPENTER                      | NGS Construction        |                                 | 13                                  | 13           |
| CARPENTER*APPRENTICE           | NGS Construction        |                                 | 2                                   | 2            |
| ELECTRICIAN*APPRENTICE STATION | Maintenance             | 2                               | 2                                   | 4            |
| ELECTRICIAN*LEAD               | Maintenance             | 4                               |                                     | 4            |
| ELECTRICIAN*LEAD STATION       | Maintenance             |                                 | 12                                  | 12           |
| ELECTRICIAN*LEAD, IN CHARGE    | Maintenance             |                                 | 1                                   | 1            |
| ELECTRICIAN*STATION            | Maintenance             | 3                               | 2                                   | 5            |
| ENGINEER*HOIST                 | NGS Construction        |                                 | 1                                   | 1            |
| FOREMAN LABORER, OUTAGE        | NGS Construction        |                                 | 1                                   | 1            |
| FOREMAN*CARPENTER              | Monticello Construction | 2                               |                                     | 2            |

## Worker Transition Plan

| <b>Xcel Energy's<br/>Monticello and Prairie Island Employees<br/>Occupational Study Summary</b> |                         |                                 |                                     |              |
|-------------------------------------------------------------------------------------------------|-------------------------|---------------------------------|-------------------------------------|--------------|
| <b>Job Title</b>                                                                                | <b>Department</b>       | <b>Monticello Nuclear Plant</b> | <b>Prairie Island Nuclear Plant</b> | <b>Total</b> |
| FOREMAN*CARPENTER                                                                               | NGS Construction        |                                 | 2                                   | 2            |
| FOREMAN*GENERAL                                                                                 | Monticello Construction | 3                               |                                     | 3            |
| FOREMAN*GENERAL                                                                                 | NGS Construction        |                                 | 5                                   | 5            |
| FOREMAN*GENERAL, IN CHARGE                                                                      | NGS Construction        |                                 | 1                                   | 1            |
| FOREMAN*LABOR                                                                                   | Monticello Construction | 3                               |                                     | 3            |
| FOREMAN*LABOR                                                                                   | NGS Construction        |                                 | 1                                   | 1            |
| FOREMAN*PAINTER                                                                                 | Monticello Construction | 1                               |                                     | 1            |
| FOREMAN*PAINTER                                                                                 | NGS Construction        |                                 | 1                                   | 1            |
| HELPER*LEAD NUCLEAR PLANT                                                                       | Rad Protection          | 1                               |                                     | 1            |
| HELPER*NUCLEAR PLANT                                                                            | Rad Protection          | 12                              |                                     | 12           |
| IRONWORKER                                                                                      | Monticello Construction | 2                               |                                     | 2            |
| LABORER                                                                                         | Monticello Construction | 10                              |                                     | 10           |
| LABORER                                                                                         | NGS Construction        |                                 | 30                                  | 30           |
| MACHINIST                                                                                       | Maintenance             | 4                               | 4                                   | 8            |
| MACHINIST*APPRENTICE                                                                            | Maintenance             | 1                               | 5                                   | 6            |
| MACHINIST*LEAD                                                                                  | Maintenance             | 5                               | 7                                   | 12           |
| OPERATOR*ASST PLANT EQUIP, ASS                                                                  | Operations              |                                 | 2                                   | 2            |
| OPERATOR*LEAD NUC AST PLNT EQP                                                                  | Operations              |                                 | 3                                   | 3            |
| OPERATOR*LEAD, ASSIGNMENT                                                                       | Operations              |                                 | 2                                   | 2            |
| OPERATOR*NUC AST PLNT EQP WCC                                                                   | Operations              |                                 | 1                                   | 1            |
| OPERATOR*NUCLEAR ASSISTANT PLT                                                                  | Operations              | 9                               | 31                                  | 40           |
| OPERATOR*NUCLEAR LEAD PLT EQUI                                                                  | Operations              | 9                               | 21                                  | 30           |

| Xcel Energy's<br>Monticello and Prairie Island Employees<br>Occupational Study Summary |                         |                          |                              |       |
|----------------------------------------------------------------------------------------|-------------------------|--------------------------|------------------------------|-------|
| Job Title                                                                              | Department              | Monticello Nuclear Plant | Prairie Island Nuclear Plant | Total |
| OPERATOR*NUCLEAR PLANT EQUIP &                                                         | Operations              | 11                       | 7                            | 18    |
| PAINTER (SWING OR SPRAY)                                                               | Monticello Construction | 2                        |                              | 2     |
| PAINTER (SWING OR SPRAY)                                                               | NGS Construction        |                          | 3                            | 3     |
| REPAIRMAN (POWER PRODUCTION)                                                           | Maintenance             | 2                        | 8                            | 10    |
| RIGGER                                                                                 | Maintenance             | 3                        | 3                            | 6     |
| RIGGER*APPRENTICE                                                                      | Maintenance             | 1                        | 4                            | 5     |
| RIGGER*LEAD                                                                            | Maintenance             | 3                        | 2                            | 5     |
| SPECIALIST*INSTR & CONTROL                                                             | Maintenance             | 6                        | 11                           | 17    |
| SPECIALIST*MATERIAL & PROCURE                                                          | Monticello Stores       | 1                        |                              | 1     |
| SPECIALIST*MAT'L & PRC THRAFT                                                          | Monticello Stores       | 4                        |                              | 4     |
| SPECIALIST*MAT'L & PRC THRAFT                                                          | Prairie Island Stores   |                          | 7                            | 7     |
| SPECIALIST*SR INSTR & CONTROL                                                          | Maintenance             | 3                        | 5                            | 8     |
| STEAMFITTER*APPRENTICE,-WELDER                                                         | Maintenance             |                          | 1                            | 1     |
| STEAMFITTER-WELDER                                                                     | Maintenance             | 1                        | 3                            | 4     |
| TECHNICIAN I*COMMUNICATION                                                             | IO Operating Services   |                          | 1                            | 1     |
| WELDER SPECIALIST                                                                      | Maintenance             | 4                        | 2                            | 6     |
| WELDER*REPAIRMAN -                                                                     | Maintenance             |                          | 2                            | 2     |
| Total                                                                                  |                         | 134                      | 250                          | 384   |

### Summary

The foundation for this type of transition program is based on long-term planning. If a premature closure of Prairie Island or Monticello were to occur the results would be less favorable. In that case, employees would be afforded less time to prepare themselves for other employment within Xcel Energy or for careers outside of the company. No amount of prior planning can alleviate employees' personal hardships should a valuable and efficient plant be forced

to close prematurely. It would be highly speculative and not cost effective to prepare contingencies based on scenarios that are not likely to occur.

### **Conclusion**

- Xcel Energy is committed to its employees. That commitment is reflected in the scope of resources available to employees. Xcel Energy will continue to invest heavily in employees' training and development so that the transition to the new business environment will be proactive.
- Xcel Energy's commitment to excellence in operations is unequivocal as is our commitment to operate its Monticello and Prairie Island Plants at least until the end of the current licenses and potentially for an additional twenty years in the case of Prairie Island when approvals for license renewal and dry spent fuel storage are received.
- The long lead times prior to plant closings affords Xcel Energy and its employees an unprecedented opportunity to plan for the transition.
- An orderly transition is possible through Business and Human Asset Planning as performed by NMC, and coordinated with similar processes internal to Xcel Energy. .

### **Commitments**

- Xcel Energy will continue to account for changes in the work force through business planning and Human Asset Planning.
- Xcel Energy will continue to work with affected unions to promote the retention and training of its highly skilled and dedicated work force.



## Appendix G-2

### POWER UPRATES EXPERIENCE

#### Power Uprate Approved Applications:

- Calvert Cliffs, Units 1 and 2
- Millstone, Unit 2
- H.B. Robinson Nuclear Plant<sup>1</sup>
- Fort Calhoun Station
- St. Lucie, Units 1 and 2
- Duane Arnold<sup>2</sup>
- Salem, Units 1<sup>3</sup> and 2
- North Anna, Units 1 and 2
- Callaway
- Three Mile Island, Unit 1
- Fermi, Unit 2
- Vogtle, Units 1 and 2
- Wolf Creek
- Susquehanna, Units 1 and 2<sup>4</sup>
- Peach Bottom, Units 2 and 3<sup>5</sup>
- Limerick, Units 1 and 2
- Nine Mile Point, Unit 2
- Washington Nuclear Plant, Unit 2
- Surry, Units 1 and 2
- Hatch, Units 1 and 2<sup>6</sup>
- V.C. Summer Nuclear Station
- Palo Verde Units 1 thru 3<sup>7</sup>
- Turkey Point Nuclear Plant, Units 3 and 4
- Brunswick, Units 1 and 2<sup>8</sup>
- James A FitzPatrick

<sup>1</sup> Approval for 4.5% in 1979 and 1.7% in 2002.

<sup>2</sup> Approval received for 4.1% uprate in 1985 and 15.3% in 2001.

<sup>3</sup> Unit 1 was approved for a 2% uprate in 1986 and 1.4% in 2001.

<sup>4</sup> Two different applications in 1994, 1995 for Units 2 and 1 respectively and then in 2001. The first request was for a 4.5 percent uprate and the second for a 1.4% uprate.

<sup>5</sup> Approval was granted in 1994 for 5% at Unit 2 and in 1995 for Unit 3. Both Units were also approved for 1.62% in 2002.

<sup>6</sup> Three applications: 1995 (5%), 1998 (8%), 2003 (1.5%).

<sup>7</sup> All Units approved at 2% in 1996 and Unit 2 at 2.9% in 2003 and Units 1 and 3 for 2.9% in 2005.

<sup>8</sup> Approval for 5% in 1996 and 15% in 2002.

- Farley, Units 1 and 2
- Browns Ferry, Units 1, 2 and 3
- Monticello
- Comanche Peak, Units 1 and 2<sup>9</sup>
- LaSalle, Units 1 and 2
- Perry
- River Bend<sup>10</sup>
- Diablo Canyon, Unit 1
- Watts Bar
- Byron, Units 1 and 2
- Braidwood, Units 1 and 2
- San Onofre, Units 2 and 3
- Hope Creek
- Beaver Valley, Units 1 and 2<sup>11</sup>
- Shearon Harris
- Dresden, Units 2 and 3
- Quad Cities, Units 1 and 2
- Waterford<sup>12</sup>
- Clinton
- South Texas, Units 1 and 2
- ANO-2
- Grand Gulf Nuclear Station
- Sequoyah, Units 1 and 2
- Indian Point, Units 2 and 3<sup>13</sup>
- Crystal River Nuclear Generating Plant, Unit 3
- Point Beach, Units 1 and 2
- D.C. Cook, Units 1 and 2
- Kewaunee Power Generating Station<sup>14</sup>
- Pilgrim
- Palisades
- Seabrook<sup>15</sup>
- Vermont Yankee
- Ginna

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<sup>9</sup> Unit 2 received approval for a 1% uprate in 1999 and approval for 0.4% in 2001.

<sup>10</sup> Approved for 5% in 2000 and 1.7% in 2003.

<sup>11</sup> Approved for 1.4% in 2001 and 8% in 2006.

<sup>12</sup> Unit 3 1.5% in 2002 and all units for 8% in 2005.

<sup>13</sup> Approvals for 1.4% for Units 3 and 2 in 2002 and 2003, respectively and 3.26% in 2004 and 2005, respectively

<sup>14</sup> Approved for 1.4% in 2003 and 6% in 2004.

<sup>15</sup> Approved for 5.2% in 2005 and 1.7% in 2006.



**Appendix G-1**  
**Nuclear Reclicensing**  
**Experience**

## Appendix G-1

### RELICENSING EXPERIENCE

#### Relicensing Applications Approved:

- Calvert Cliffs, Units 1 and 2
- Oconee Nuclear Station, Units 1, 2 and 3
- Arkansas Nuclear One, Unit 1
- Edwin I. Hatch Nuclear Plant, Units 1 and 2
- Turkey Point Nuclear Plant, Units 3 and 4
- North Anna, Units 1 and 2, and Surry, Units 1 and 2
- Peach Bottom, Units 2 and 3
- St. Lucie, Units 1 and 2
- Fort Calhoun Station, Unit 1
- McGuire, Units 1 and 2, and Catawba, Units 1 and 2
- H.B. Robinson Nuclear Plant, Unit 2
- R.E. Ginna Nuclear Power Plant, Unit 1
- V.C. Summer Nuclear Station, Unit 1
- Dresden, Units 2 and 3, and Quad Cities, Units 1 and 2
- Farley, Units 1 and 2
- Arkansas Nuclear One, Unit
- D.C. Cook, Units 1 and 2
- Browns Ferry, Units 1, 2 and 3
- Millstone, Units 2 and 3
- Point Beach, Unit 1 and 2
- Nine Mile Point, Units 1 and 2
- Brunswick, Units 1 and 2
- Monticello
- Palisades

#### Relicensing Applications Currently Under Review and Date Received:

- Oyster Creek – July 2005
- Pilgrim 1 – January 2006
- Vermont Yankee, January 2006
- James A FitzPatrick – August 2006
- Susquehanna – September 2006
- Wolf Creek – October 2006

- Shearon Harris – November 2006
- Indian Point – April 2007
- Vogtle - June 2007
- Beaver Valley – August 2007

**Relicensing Applications Expected:**

- Three Mile Island, Unit 1 – March 2008
- Prairie Island Unit 1 and 2- June 2008
- Cooper Nuclear Station – September 2008
- Kewaunee Power Generating Station – September 2008
- Strategic Teaming and Resource Sharing – December 2008
- Duane Arnold Energy Center – December 2008
- Crystal River Nuclear Generating Plant, Unit 3 – March 2009
- Salem Generating Stations, Units 1 & 2 – September 2009
- Hope Creek Generating Station – September 2009
- Strategic Teaming and Resource Sharing – December 2009
- Columbia Generating Station – January 2010
- Grand Gulf Nuclear Station – January 2010
- Davis-Besse, Unit 1 – August 2010
- Strategic Teaming and Resource Sharing – December 2010
- River Bend Station, Unit 1 – January 2011
- Waterford 3 – August 2011
- Exelon Plant – September 2011
- Exelon Plant – July 2013
- Exelon Plant – July 2013
- Strategic Teaming and Resource Sharing – September 2013
- Perry Nuclear Power Plant – August 2013

**Appendix G**  
**Nuclear**



## Appendix F. Repowering, Retirement and Life Extension Studies

The design life of many of the Company's older fossil generation facilities was originally estimated at 30 to 40 years. However, the actual useful lives of these assets have been extended beyond the original design life through routine facility maintenance and periodic component replacement. The cycle of use and replacement of specific facility components can occur many times during the useful life of a facility. Life extension studies provide a tool to estimate whether it is economic to continue operating a plant and, or to replace key components in order to extend the plant's life. As with all studies, these decisions are subject to future changes based upon catastrophic failures, increased inspection or maintenance costs and other issues.

When a plant appears to have reached the end of its economic life, we consider if we should repower the plant with new components and, or the capabilities to operate with a different fuel. For instance, this may provide an opportunity to take advantage of a favorable location near load or to meet ongoing requirements such as voltage support. We have studied the following units for life extension, retirement and, or repowering:

Black Dog Units 3 and 4

Blue Lake Units 1, 2, 3 and 4

Flambeau Unit 1

French Island Units 3 and 4

Granite City Units 1, 2, 3 and 4

Key City Units 1, 2, 3 and 4

Wheaton Units 5 and 6

Below, we provide a brief discussion regarding continued operations for each of these plants and a summary chart.

*Black Dog Units 3 and 4*

Our study reviewed these two units as continuing to operate as coal plants through 2032. As shown in the graph below, Unit 3 becomes more expensive to operate than estimated market costs. As shown in the next graph, Unit 4 can operate at below most market rate scenarios through 2032. Because of common infrastructure, such as the coal handling equipment, consideration of overall plant efficiencies merits further analysis of these units in tandem, in addition to the separate analysis already performed. Further, this plant has a strategic location on our system making continued operation desirable.

Previously we have repowered other units at this site and the site does provide good gas availability. All of these factors lead us to conclude that a more detailed re-powering study of Units 3 and 4 should be undertaken. Our initial review indicates that a repowering conversion could provide multiple benefits. For instance, discontinuing coal at Unit 3 can be achieved to offset increased emissions from capacity uprates at Sherco. This would still allow for a repowering to a combined cycle unit at the Black Dog site (Unit 4) without increasing overall carbon emissions. In fact, such a conversion is incorporated into our Preferred Plan, however, a more detailed analysis is required to confirm that a conversion would be preferable to continuing to operate both units on coal. As described elsewhere in this petition, we are committed to reducing carbon emissions to offset uprates in capacity at Sherco. Our current analysis suggests this could be accomplished with reductions at Black Dog, and in particular, Unit 3.

Figure F-1

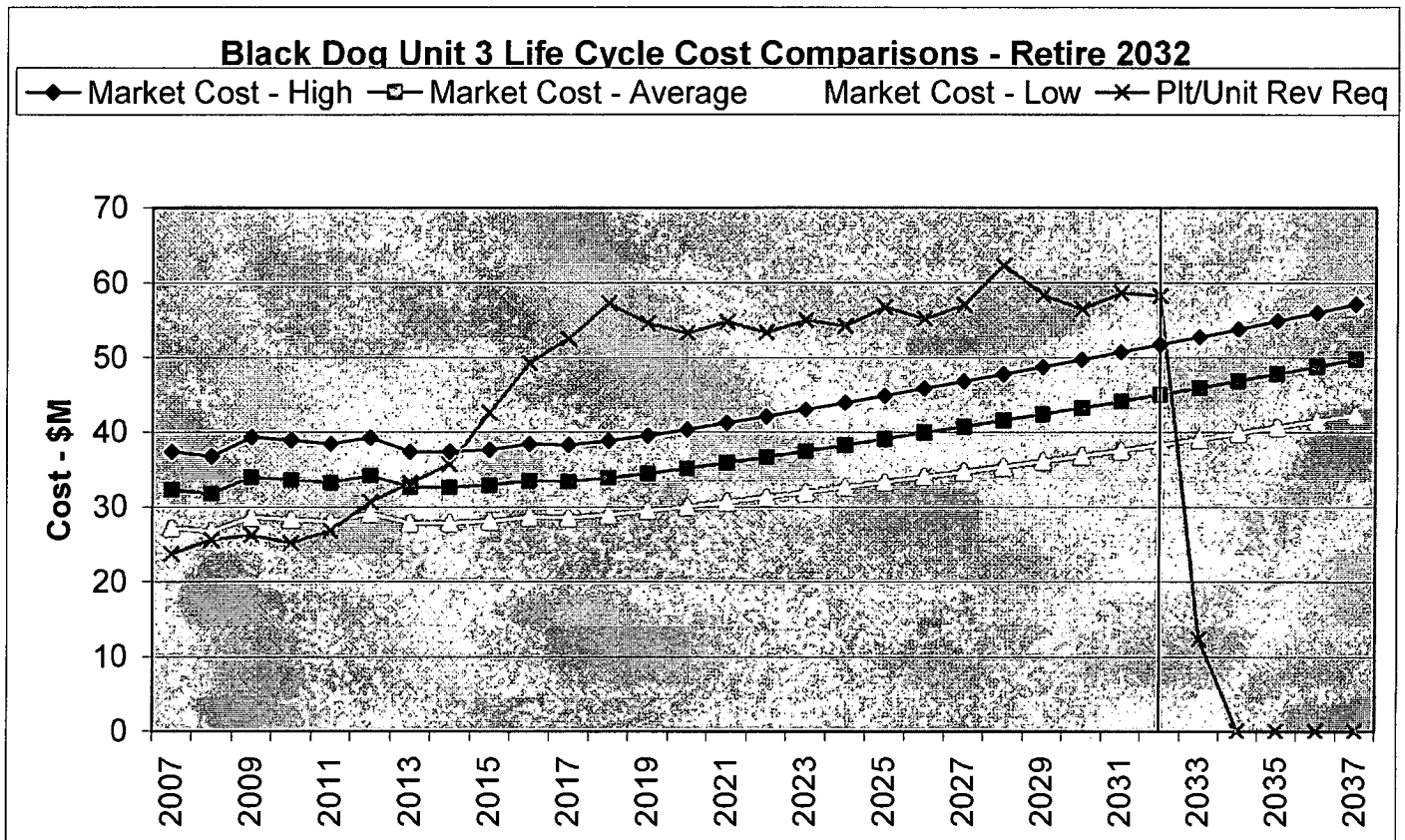
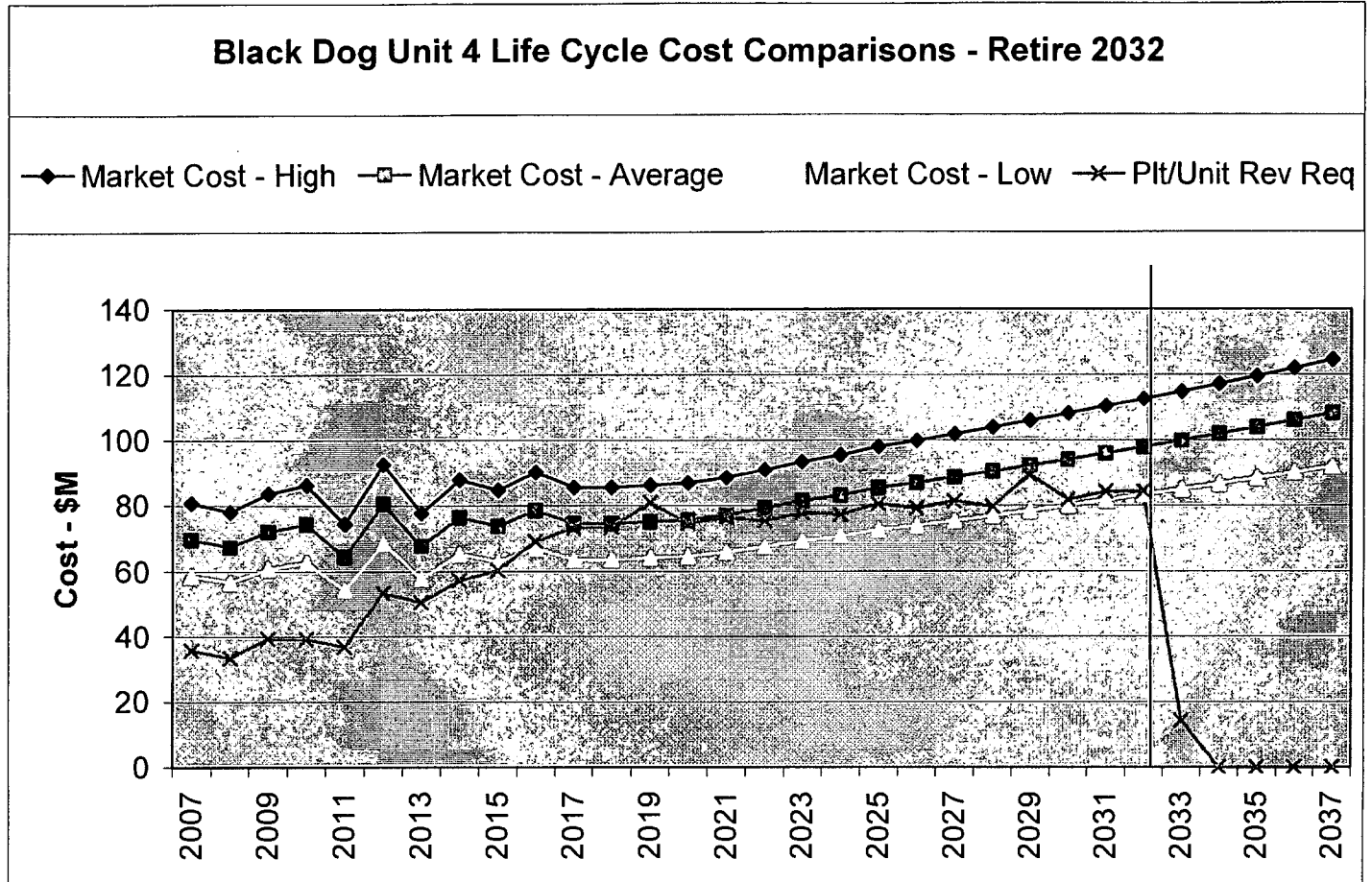




Figure F-2



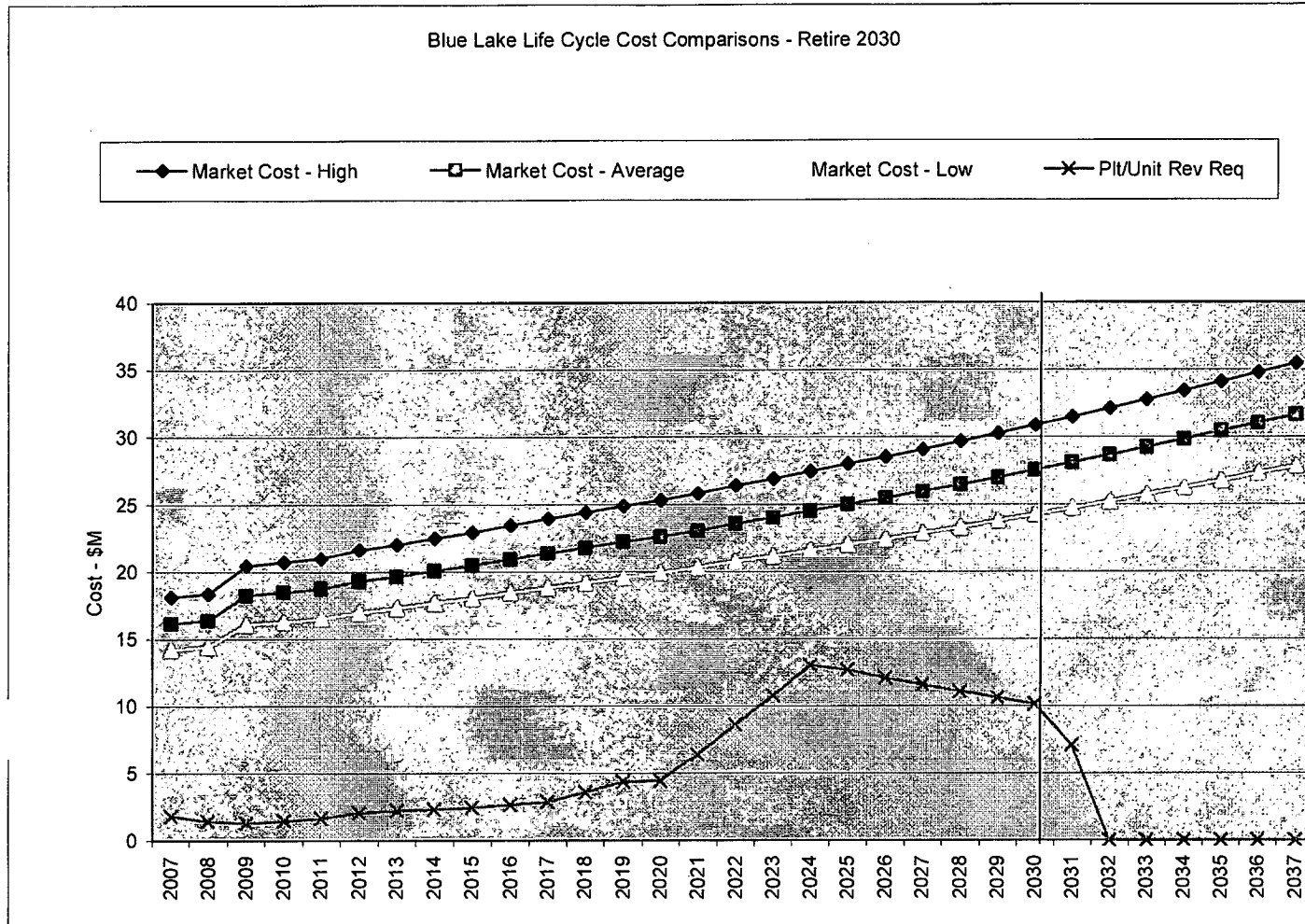
*Blue Lake Units 1, 2, 3 and 4*

These are oil-fuel units and as a result are some of the last units to be dispatched. Thus, when they are dispatched, it is to meet peak power needs.

Continuing to operate these units for peak power needs will be economic.

The following graphs summarize the cost scenarios that were studied to make this determination.

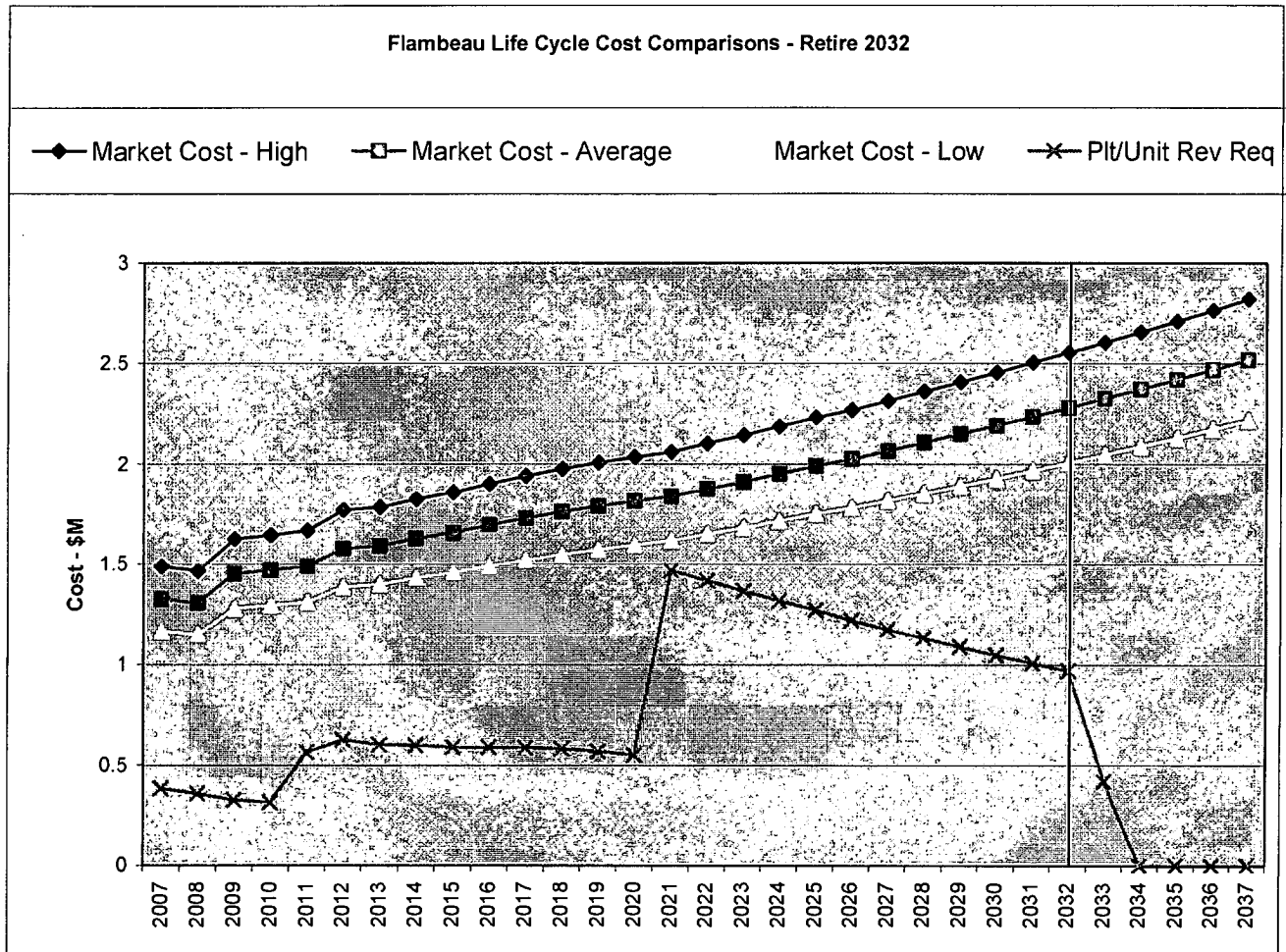
Figure F-3



### Flambeau Unit 1

Flambeau Unit 1 is currently considered a necessary resource for transmission reliability. Completion of additional transmission infrastructure in 2008 may reduce or eliminate the need for this unit for transmission reliability. We will continue to monitor the need for this unit for reliability purposes and review its economics.

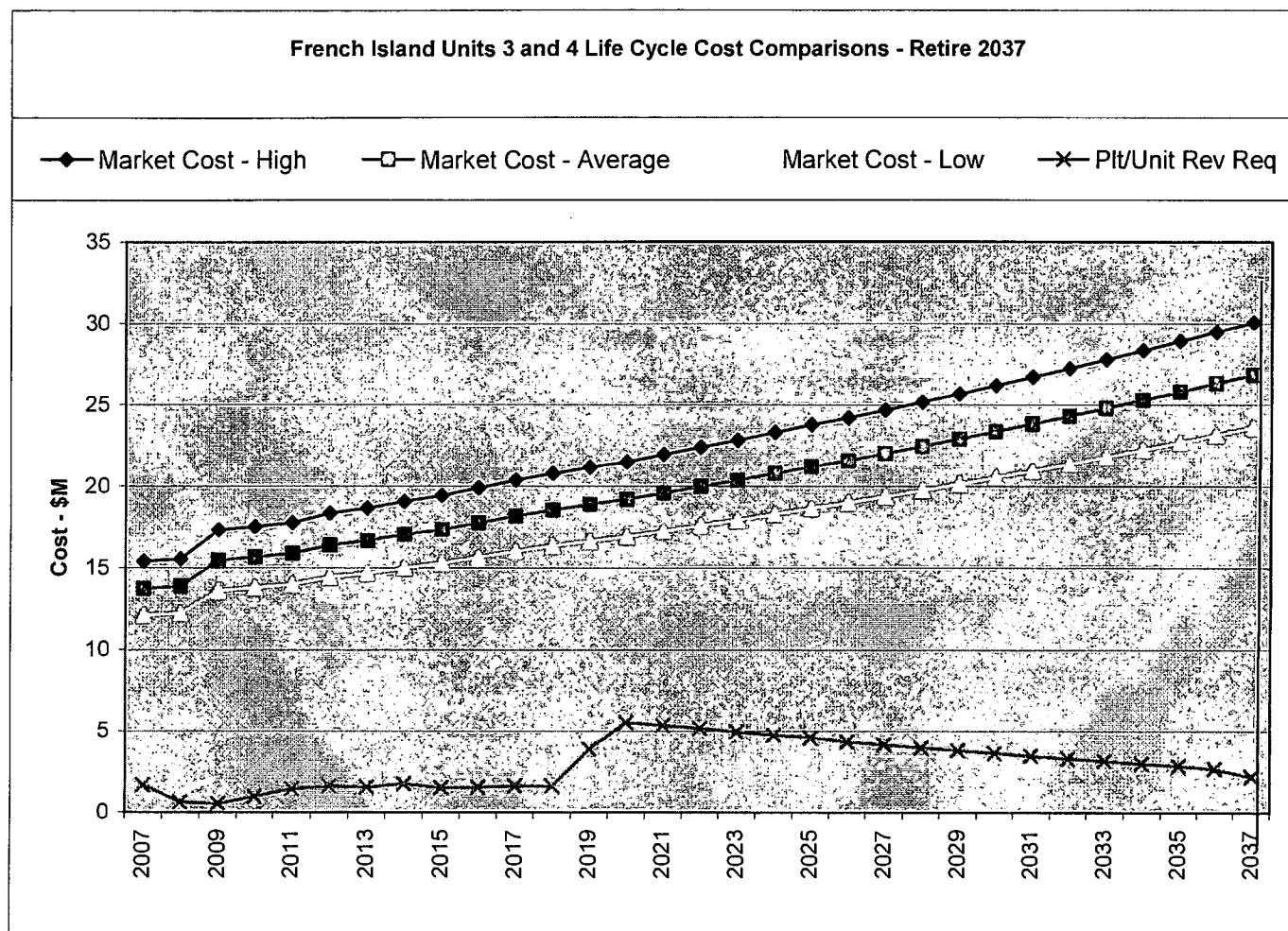
Figure F-4



#### *French Island Units 3 and 4*

French Island Units 3 and 4 are currently considered necessary for transmission reliability. The end of life is currently 2023 but studies indicate that the units can continue to be economical in-market resources with the completion of life extension maintenance work.

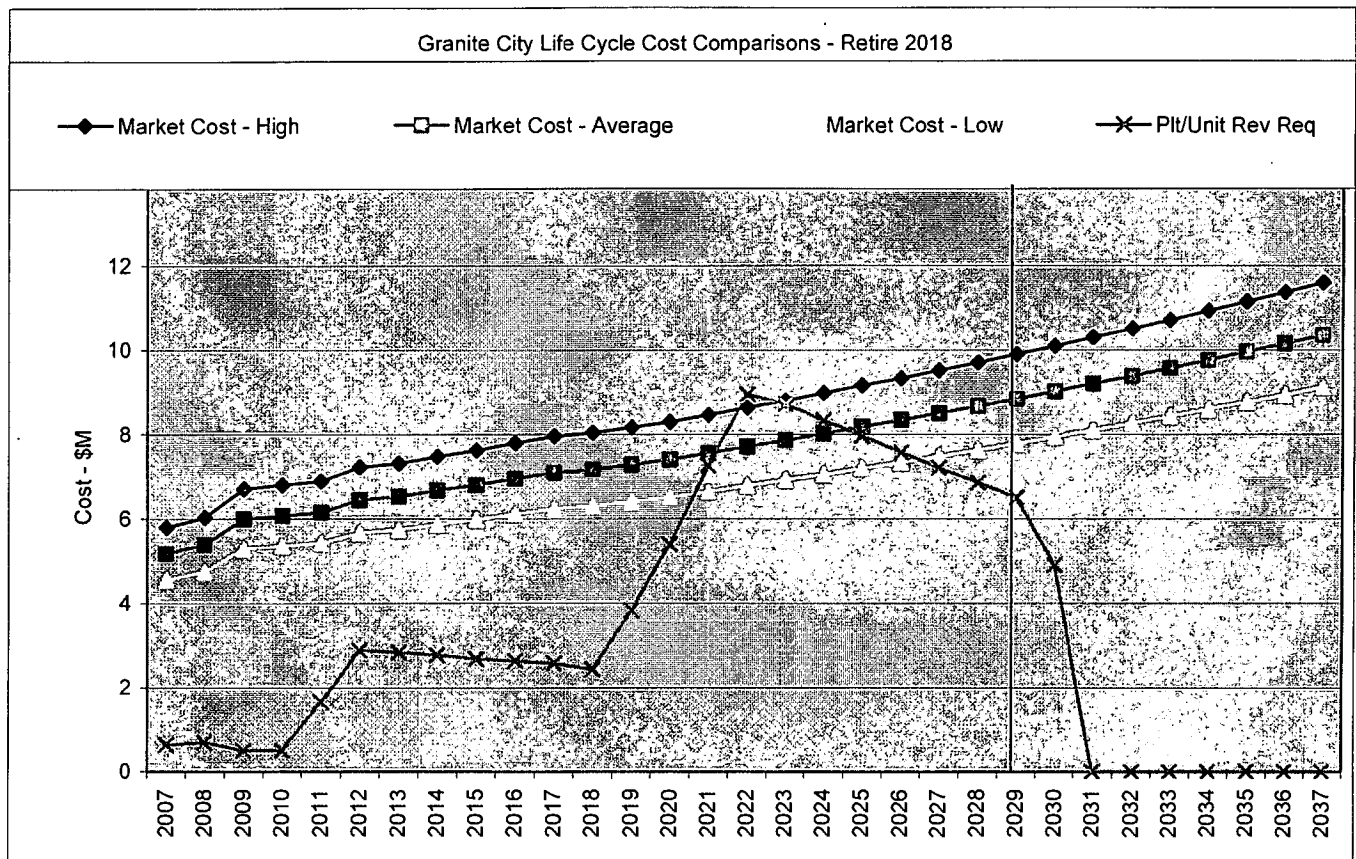
Figure F-5



#### Granite City Units 1, 2, 3 and 4

Granite City is a black-start designated site for Sherco and a back-up source for the Monticello Plan. The units are operated by plant personnel dispatched from Sherco. While it makes sense to extend the life of these units beyond their original retirement date of 2009, by 2018 our studies indicate the costs of continuing to operate these units becomes too expensive. The Company plans to explore whether to repower this site after 2018 or retire it and build a black start-capable peaking facility closer to the Sherco and Monticello sites.

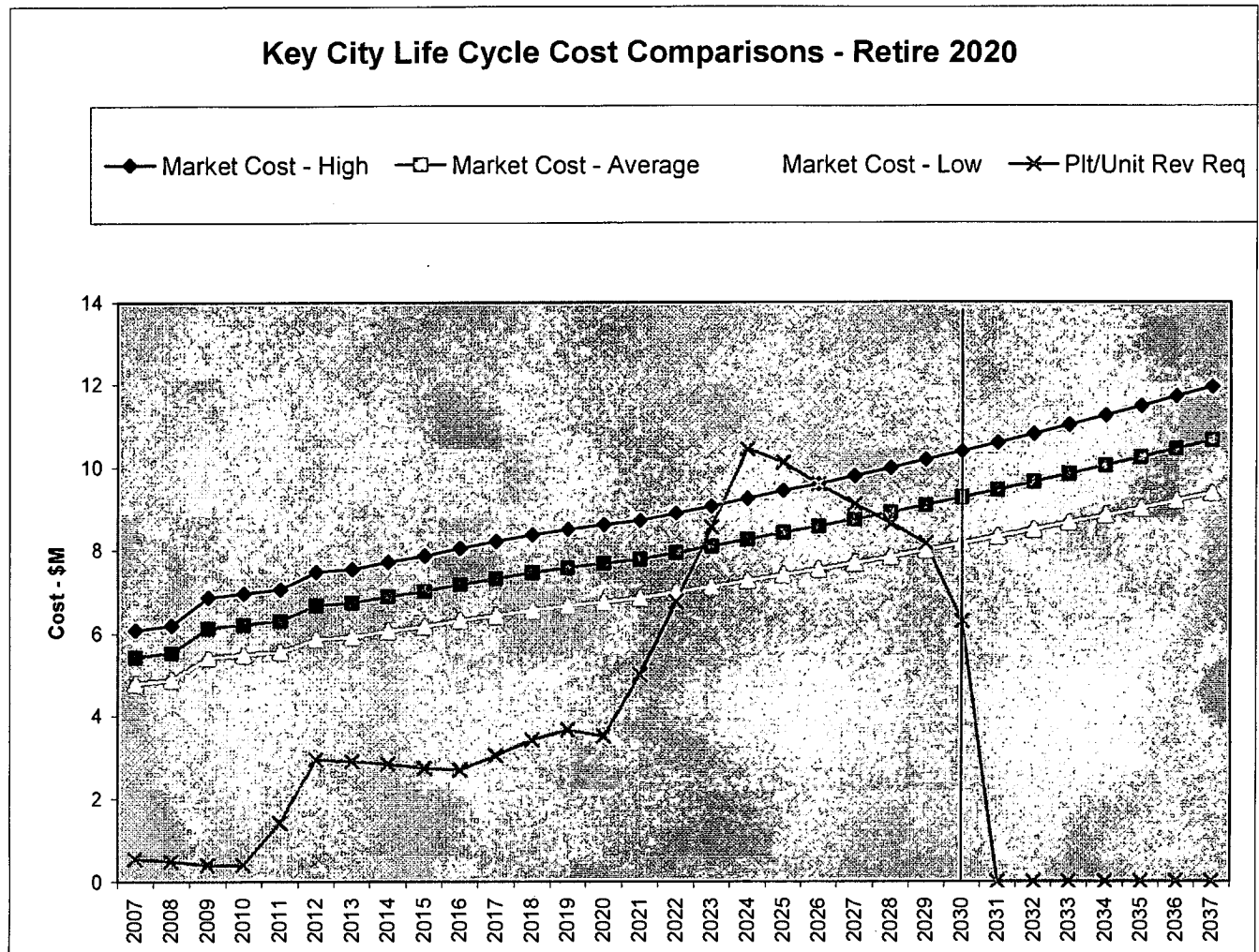
Figure F-6



#### Key City Units 1, 2, 3 and 4

Unit 2 has already been removed from service due to damages that are cost prohibitive to repair. Plant personnel dispatched from the Wilmarth RDF plant currently operate the remaining units. Currently it is cost effective to continue to operate Units 1, 3 and 4 until 2020, although we will continue to review this in future resource plans. Future economics could be reduced depending upon changes with the Wilmarth plant.

Figure F-7



*Wheaton Units 5 and 6*

The current analyses for this plant indicate that operation of these units should be continued. As a result, we plan to continue operating these plants until 2035.

Figure F-8

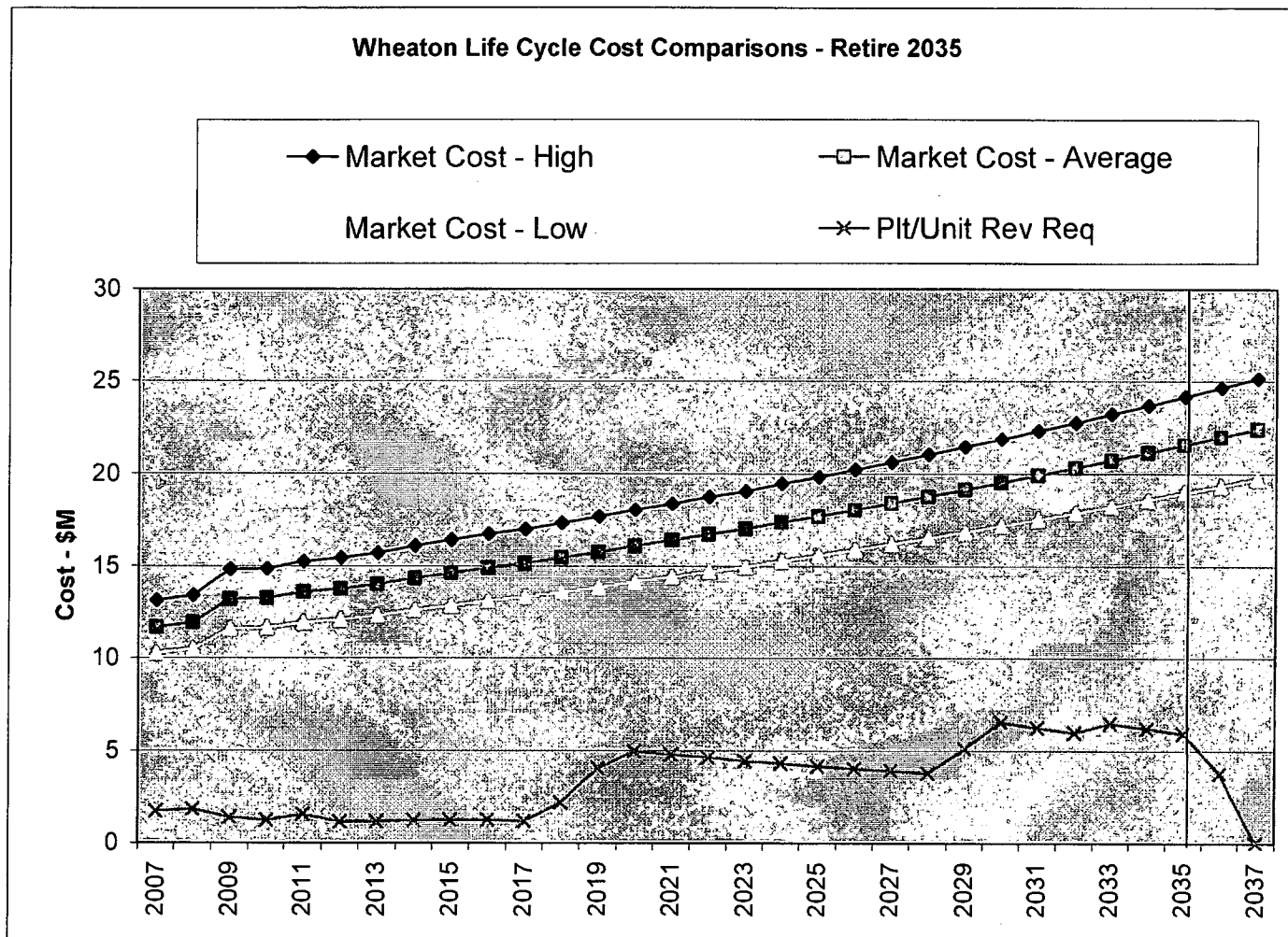


**Table F-1**

Study Recommendations

| Unit               | Old Date | New Date                         |
|--------------------|----------|----------------------------------|
| Black Dog 3        | 2014     | Further Study                    |
| Black Dog 4        | 2014     | Further Study                    |
| Blue Lake 1-4      | 2010     | 2030                             |
| Flambeau           | 2012     | 2012 (Subject to Further Review) |
| French Island 3& 4 | 2017     | 2023                             |
| Granite City 1-4   | 2009     | 2018                             |
| Key City 1, 3,4    | 2009     | 2012                             |
| Wheaton 5 & 6      | 2015     | 2035                             |



**Appendix E**  
**Wind Storage**

## Appendix E. Wind Storage Research and Experiments

Because Wind Resources will play such an important role in our future resource portfolio, we have two research projects currently in progress that have the potential to support wind resources. Additionally, we have been directed by the Commission to review the current state of wind energy storage research.

Absent the opportunity to market excess energy production off-system, at lower load levels, wind energy by 2020 will likely lead us to back down operations at some base load resources. Because it is impractical to quickly ramp base load units, the ability to store wind energy temporarily for use when loads are higher during on-peak periods would be very beneficial to system operations. The Midwest Independent System Operator (“MISO”) is currently studying whether it is economic to make transmission infrastructure improvements sufficient to move this projected excess wind energy from Minnesota to the rest of MISO, but the results of those studies are not yet available.

In an effort to look at alternatives, we are currently experimenting with two storage technologies as discussed below. This is followed by a general discussion of other types of electric energy storage that could be used to store wind energy: large scale storage technology, scalable storage technology, and chemical conversion storage technology.

### Current Experiments

#### *Wind Storage Research and Development – NaS Battery System*

NaS battery technology has been demonstrated at over 30 sites in Japan totaling more than 20 MW with stored energy suitable for 8 hours daily peak shaving. Xcel Energy is planning to explore the viability of coupling a 1 MW NaS battery installation with the 11.8 MW MinnWind wind project. The primary objective of this project is to understand the value of energy storage in supporting greater wind energy penetration on the Xcel Energy System by

testing the hypothesis that energy storage will enable ‘firming’ of wind energy and a reduction in impacts from compensating for variability and limited predictability of wind generation resources and the associated emissions. Additional benefits of battery energy storage such as transmission and distribution grid system support, which are essential to integrating a much larger percentage of wind energy into the regional energy resource mix will also be evaluated.

This project involves building a 1 MW, wind energy battery storage system, using sodium sulfur (NaS) battery technology. Wind energy stored within the battery system will be controlled and dispatched when needed for supply or for transmission system stability. The battery is capable of providing a constant power level of up to 1.2 MW for 6 hours. The battery energy storage system is projected to be operational by the fourth quarter of 2008. It is estimated that the testing phase will be completed at the end of 2009, with associated findings and recommendations developed during the first half of 2010.

NaS technology has been selected for this project because of its high storage capacity, its ability to handle the large number of charge-recharge cycles associated with intermittent renewable energy sources, its large scale and potential for even larger scalability, its dynamic response to system changes, and its commercial availability.

Although the NaS battery technology is commercially available, it has not been connected to a wind application domestically and will require development of a power conversion system specific to this project. As such, the project may contribute to the standardization of the power conversion system and utility dispatch protocols, which would enable greater implementation on the electric grid and reduce overall capital costs.

Specific project goals include:

1. Evaluate the ability of large-scale battery-storage technology to effectively ‘firm’ wind energy, enabling a shift of wind-generated energy from off-peak to on-peak availability. This could theoretically increase

the value of wind-generated energy as well as decrease the need for intermediate and peaking facilities.

2. Evaluate the ability of battery-storage technology to reduce the need to compensate for the variability and limited predictability of wind generation resources. This includes reductions in carbon-based spinning reserves or supplemental reserve requirements, as well as reductions in contingency recovery costs, such as generator black start support.
3. Evaluate the potential for battery-storage technology to support the transmission system and therefore allow the system to more effectively integrate wind into system operations. This means the system would be able to maintain or maximize the integrity of the grid including frequency, voltage and reliability despite wind's intermittency. Grid support that could be provided by battery-storage technology may include reactive load support, grid frequency support, fluctuation suppression, curtailment management and throughput bottleneck relief.

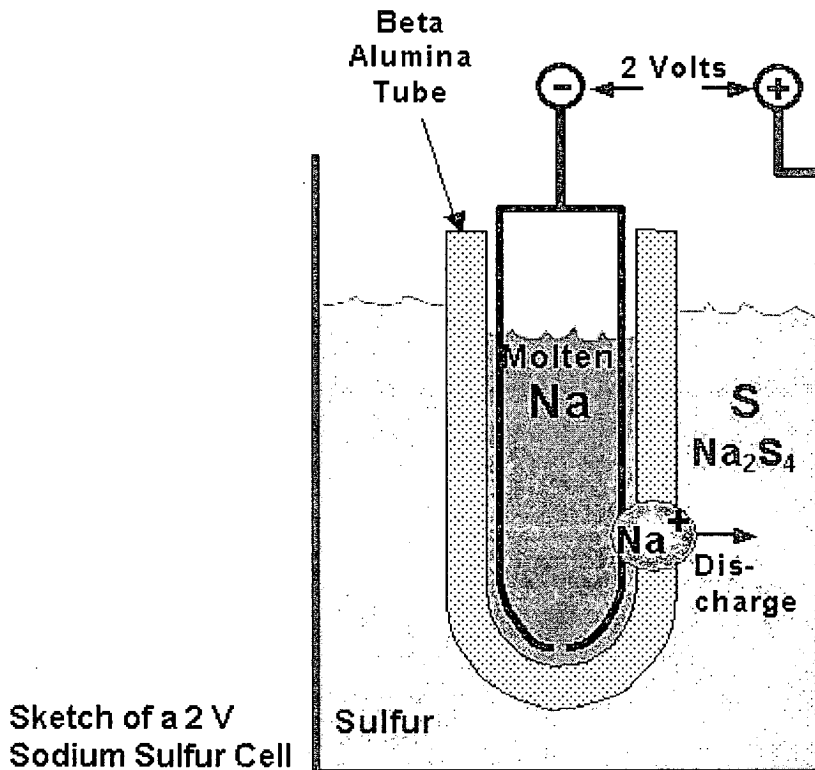
The complete system will include the following integral components:

- *NaS Battery System:* The NaS battery system is modular in design. Each battery contains twenty 50-kw modules, which in turn each contain an array of 320 individual cells within a thermally insulated enclosure equipped with electric heaters to maintain the operating temperature at about 300°C. Cells are closely spaced, connected in series and/or parallel, and packed in sand. A vacuum is drawn on the gap between the inner and outer walls of the enclosure lid to minimize heat loss. This modularity allows flexibility in configuring the system as well as ease of increasing the size of the system.

The electrochemistry of the cell includes a solid beta alumina electrolyte made with a sodium ion conductive ceramic material, which serves as both the electrolyte and the separator between the sodium (-) and sulfur (+) electrodes. To ensure safety, the NaS cell includes a 'safety tube' inside the beta-alumina tube that controls the amount of sodium and sulfur that can

potentially combine. This prevents generation of enough heat to rupture the cell.

Figure E-1



- *Power conversion equipment:* The power conversion equipment handles the interconnections between AC and DC power to and from the battery. There are a number of challenges that need to be addressed, such as low voltage ride-through capability, the role of power-electronics based transformers, and different topologies of the converters. During the project, we will be identifying the issues and looking at which can be addressed while providing the most value to the overall system efficiency and effectiveness in terms of supporting grid functionality and enabling more renewable energy on the grid.
- *Backup power for emergency battery temperature regulation:* The primary function of the backup power is to provide emergency backup to external heaters that

are needed to keep the battery maintained at an elevated temperature at all times to accomplish energy storage function. These heaters are only needed on battery start up or when the batteries are in an idle state. Backup power may come from either the wind farm's backup power or may be a separate diesel/gasoline-driven generator.

- *Grid interconnection:* Grid interconnections will need to meet requirements. Since this is a unique application, there may be challenges to be addressed, such as (1) providing functionality to switch back and forth from charging to discharging modes and (2) having the ability to provide ancillary services in addition to electric energy.
- *Wind farm interface:* The project will be examining options to determine the best approach to interfacing with the entire wind farm. The wind farm interface could be a common bus that all the wind turbines feed into, or there could be an interface at the bus of each individual turbine. The primary challenge here is designing the interconnection to the battery so that excess energy, over the 1.2 MW battery capacity, is 'passed through'. An alternative may be to use the wind turbine controls to suppress the wind when the rapid increase in wind power exceeds the battery's limits.
- *Local and remote performance monitoring equipment, data collection equipment, system control equipment, and associated communication equipment:* This equipment will be designed to remotely capture data from the project and make it accessible via the internet to the project partners for analysis. The data could also be made available to other interested parties.

The Company is currently considering filing for recovery of the costs of this program through its proposed RES Rider seeing the RES statute discusses battery technology as eligible for recovery under the rider.

#### *Wind-to-Hydrogen Demonstration Project*

The U.S. Department of Energy's National Renewable Energy Laboratory ("NREL") and Xcel Energy are working in partnership on a unique project to

analyze and compare hydrogen production from wind power and the electric grid. This project will explore new synergies for hydrogen as an energy storage medium and a transportation fuel. Most importantly, the project aims to overcome the intermittent aspect of wind energy by enabling energy storage for later use when the wind isn't blowing or the demand for electricity is high. Energy storage systems have the potential for addressing electric system integration issues inherent with intermittent wind energy resources, thereby enabling higher amounts of wind power on the electric system.

Hydrogen can reduce our dependence on imported oil and benefit the environment by reducing greenhouse gas emissions and concentrations of criteria pollutants that affect air quality. Hydrogen produced using renewable resources results in virtually zero greenhouse gas emissions.

The hydrogen will be produced through electrolysis — the process of splitting water into hydrogen and oxygen using electricity. The hydrogen will then be compressed and stored for future use to produce electricity (through a fuel cell or a hydrogen internal combustion engine) for grid-connected peaking power applications, or, in the future, as a vehicle fuel.

This demonstration project aims to investigate ways to improve the system efficiency of producing, delivering and using hydrogen from renewable resources in quantities large enough, and at costs low enough, to ultimately compete with traditional energy resources such as coal, oil and natural gas.

- The project will use two wind turbine technologies: a Northern Power Systems 100 kW wind turbine and a Bergey 10 kW wind turbine. The wind turbines present different kW capacities to the project. Both wind turbines are variable speed in that the blades' speed varies with wind speed. Variable speed wind turbines produce alternating current ("AC") that varies in magnitude and frequency (known as 'wild' AC) as the wind speed changes.

- The energy from the 10 kW wind turbine will be converted from its ‘wild’ AC form to direct current (“DC”), then used by the electrolyzer stack to produce hydrogen and oxygen from water. The energy from the 100 kW wind turbine will be captured from its existing controller, which already powers a DC bus of nearly 800 V. That voltage is too high for the electrolyzer stacks, and new power electronics will be designed to make the necessary conversion.
- Two HOGEN 40RE proton exchange membrane (PEM) electrolyzers from Proton Energy Systems and one Teledyne HMXT-100 alkaline electrolyzer will be used to split water into hydrogen and oxygen gases. The project will examine issues surrounding the integration of both technologies as well as how to operate the electrolyzers of different product gas output pressures in parallel.
- The hydrogen will be compressed and stored. Then, a hydrogen internal combustion engine (or a fuel cell) will convert it to electricity during peak demand hours. The demonstration project will reveal integration and operational issues as well as identify opportunities for improvement and other potential benefits for consumers.

### *Project Benefits*

- Exploring how to make hydrogen without producing greenhouse gasses or other harmful by-products. Currently, the primary means of manufacturing hydrogen is to strip it from natural gas (mostly methane) via steam methane reforming. However, technologies to produce hydrogen from non-fossil sources such as biomass, wind and solar also are available. Benefits of producing hydrogen from these non-fossil sources include eliminating greenhouse gas emissions. Also, unlike electricity, hydrogen can be stored quite easily.



- Creating synergies from co-production of electricity and hydrogen. By storing hydrogen for later use, the project addresses the intermittent nature of wind power, creating a ready source of electricity for periods when the wind isn't blowing or the demand is high. Additional synergies include consistent support of the electric grid via off-peak storage of hydrogen, and hydrogen production for potential vehicle use.
- Comparing multiple electrolyzer technologies including alkaline and a proton exchange membrane ("PEM") -- also called polymer electrolyte membrane -- electrolyzers to gauge their efficiencies and responsiveness to the variability of the wind.
- Achieving efficiency gains and potential system cost reductions through a unique integrated DC-to-DC connection between the wind turbine and the electrolyzers, the first time such a connection has been used.

### *Key challenges of the project*

- Explore system level integration issues surrounding multiple electrolyzers of both PEM and alkaline technologies that also produce hydrogen gas at different pressures.
- Evaluate the ability to integrate energy from variable speed wind turbines directly to the hydrogen producing stacks of commercially available electrolyzers.
- Determine the system impacts and ability of each electrolyzer technology to accommodate the varying energy input from wind turbines.
- Quantify system-level efficiency improvements and cost reductions by designing, building and integrating dedicated wind to electrolyzer stack power electronics to enable the closer coupling of the electricity from wind to the requirements of the electrolyzer stack.

- Gain operational experience in a hydrogen production facility including the compression of hydrogen and the use of a hydrogen-fueled internal combustion engine to generate electricity during peak demand hours.
- Evaluate appropriate safety systems and system controls to assure safe operation of hydrogen production with varying wind energy input.
- Demonstrate operation of a “closely-coupled” wind-to-hydrogen system to enable evaluation of actual system costs to identify areas for cost and efficiency improvements.
- Explore operational challenges and opportunities related to energy storage systems and their potential for addressing electric system integration issues inherent with intermittent wind energy resources.

The initial system will be located at NREL’s National Wind Technology Center near Boulder, Colorado. This site is ideally located for research and development testing of wind turbines and hydrogen systems because it experiences distinct wind patterns.

The project cost is about \$2 million and Xcel Energy is funding approximately \$1.3 million through its capital budget, including the components for producing and storing hydrogen. NREL and the Department of Energy will invest approximately \$750,000 in the project. After the demonstration is completed, Xcel Energy plans to move the equipment for commercial application someplace on its system.

### Other Available Technologies

#### *Pumped Storage*

Conventional pumped storage technology uses two water reservoirs, separated vertically. During off-peak hours, water is pumped from the lower reservoir to

the upper reservoir. When required, the water flow is reversed to generate electricity. Some hydro plants have a storage capability and can be dispatched as a pumped hydro facility. Underground pumped storage, using flooded mine shafts or other geological cavities, are also technically possible.

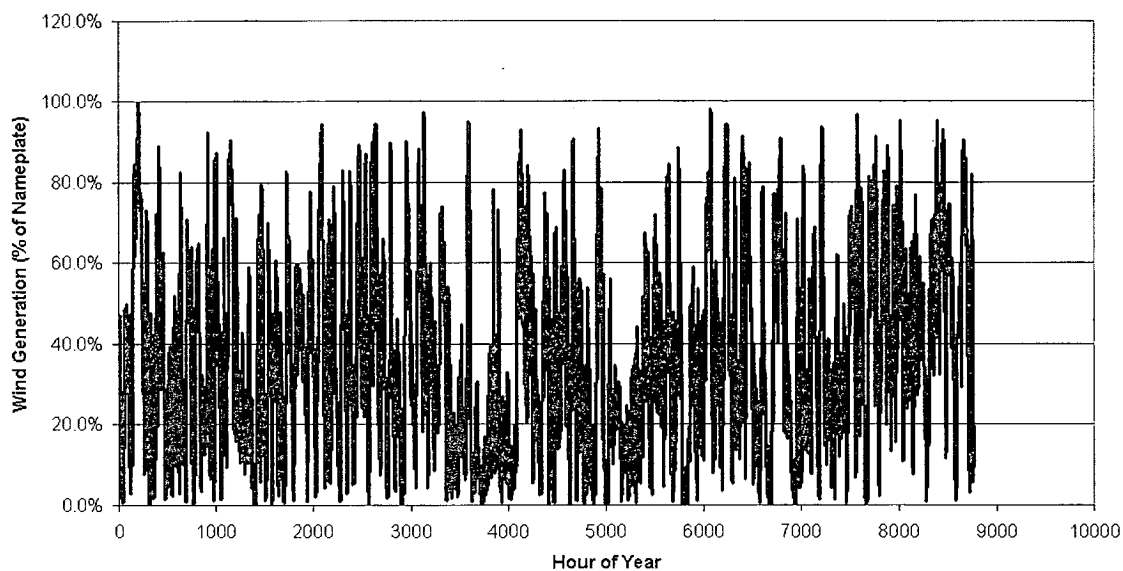
Pumped storage was first used in Italy and Switzerland in the 1890's. By 1933 reversible pump-turbines with motor-generators were available. Adjustable speed machines are now being used to improve efficiency. Pumped storage is available at almost any scale with discharge times ranging from several hours to a few days (For example there is a 1,800 MW pumped storage facility along the eastern shore of Lake Michigan (Ludington). The efficiency of pumped storage is in the 70% to 85% range.

There is over 90 GW of pumped storage in operation world wide, which is about 3 % of global generation capacity. Pumped storage plants are characterized by long construction times and high capital expenditure (>\$1,800/kW). Pumped storage is the most widespread energy storage system in use on power networks.

Figure E-2 below shows an annual wind energy pattern our system.

Figure E-2

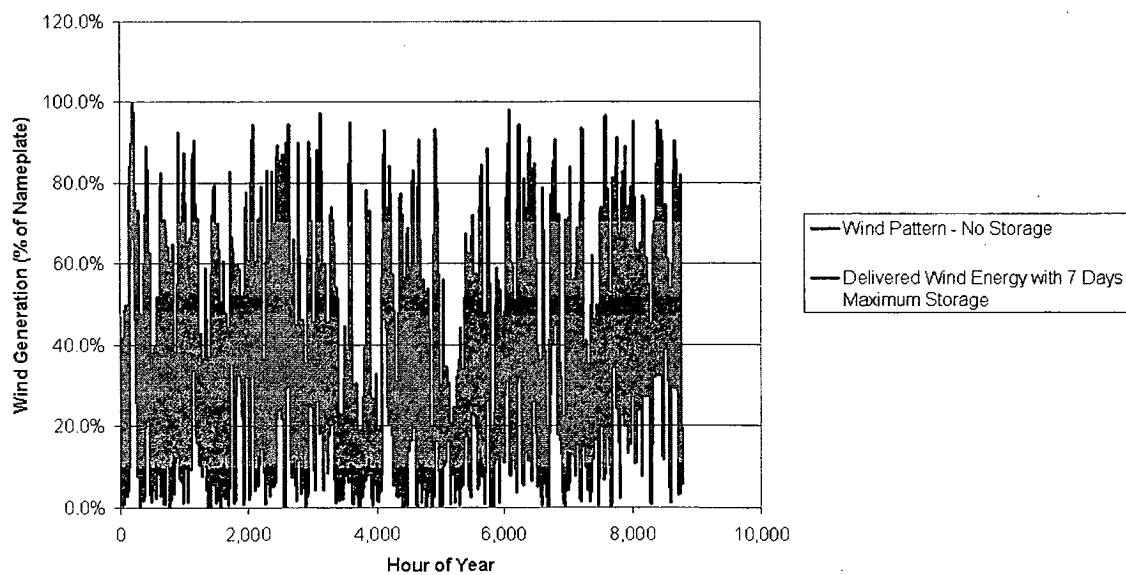
**Wind Pattern - Annual**  
Based on 2003 Actual MN Wind Pattern



A pumped storage facility could be used to moderate the amount of energy delivered as shown below.

Figure E-3

**Wind Storage- Pumped Hydro 7 Days Storage Example**  
Based on 2003 Actual MN Wind Pattern



The cost for a 1,000 MW pumped storage system would likely approach \$2 Billion. Such a facility could serve to alleviate a portion of the potential off-peak wind energy problem in 2020, but it would not eliminate it. The Company is concerned about how effective pumped storage would be relative to its cost. In addition, the Minnesota legislature has placed a moratorium on pumped storage facilities in Minnesota because most of the suitable sites for large-scale pumped storage in the state are located in environmentally sensitive areas along the St. Croix River, the Mississippi River, and the North Shore of Lake Superior.

Xcel Energy does have experience with pumped storage technology at its Cabin Creek facility in Colorado. Cabin Creek has historically been used to utilize off-peak coal-fired generation to pump up the upper reservoir for on-peak energy production. To date, it has not been used to moderate the delivery of wind energy.

### *Compressed Air Energy Storage ("CAES")*

CAES is not a direct energy storage system. Off-peak electric energy is used to compress air that is stored under pressure in a salt cavern or underground mine. During on-peak periods, the compressed air is delivered as a combustion air source for a combustion turbine. Approximately 60% of the fuel consumed by a combustion turbine is used to compress its own intake air. A wind CAES system would utilize wind energy to displace 60% of the fuel consumed by the combustion turbine for compression. For salt cavern storage, it takes about 1.5 to 2 years to create such a cavern by dissolving salt. The following graphic shows a schematic of a CAES facility.

Figure E-4

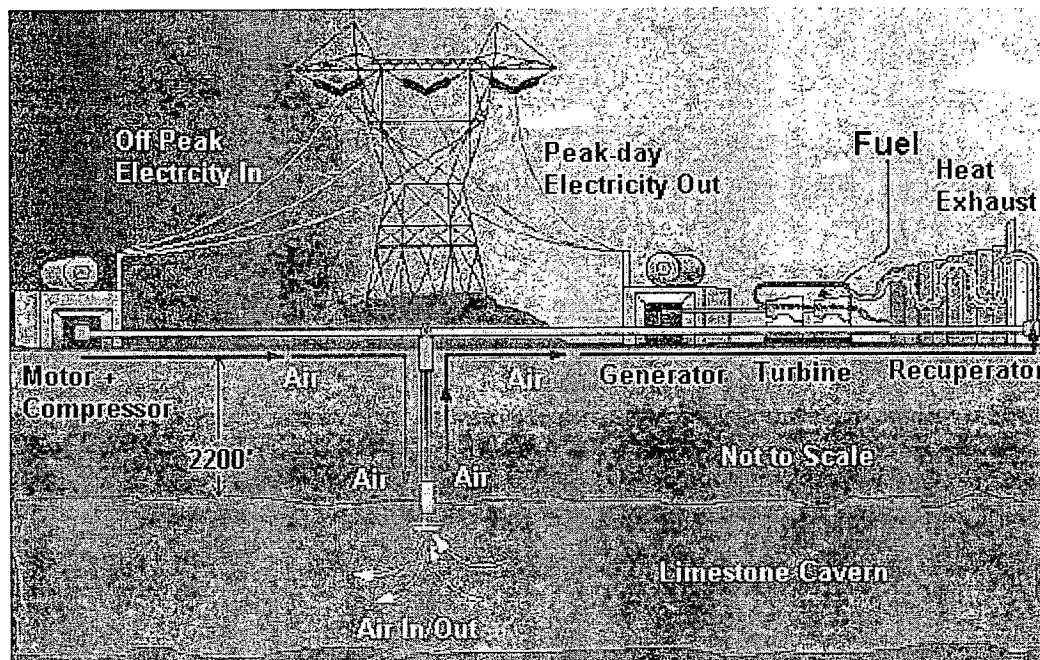


Photo Courtesy of CAES Development Company

The first commercial CAES project was a 290 MW unit built in Hundorf, Germany in 1978. The second commercial CAES was a 110 MW unit built in McIntosh, Alabama in 1991. The third commercial CAES, the largest ever, is a 2700 MW plant that is planned for construction in Norton, Ohio. This 9-unit plant will compress air to 1500 psi in an existing limestone mine some 2200 feet under ground. The current estimated cost of such a facility is in the range of \$700/kW with energy conversion efficiency in the range of 80%.

Minnesota has neither suitable salt dome geology nor large-scale underground mines sufficient to support a 1,000 MW CAES facility. The Company is also concerned about the complexities entailed in operating such a facility.

## Other Types of Batteries

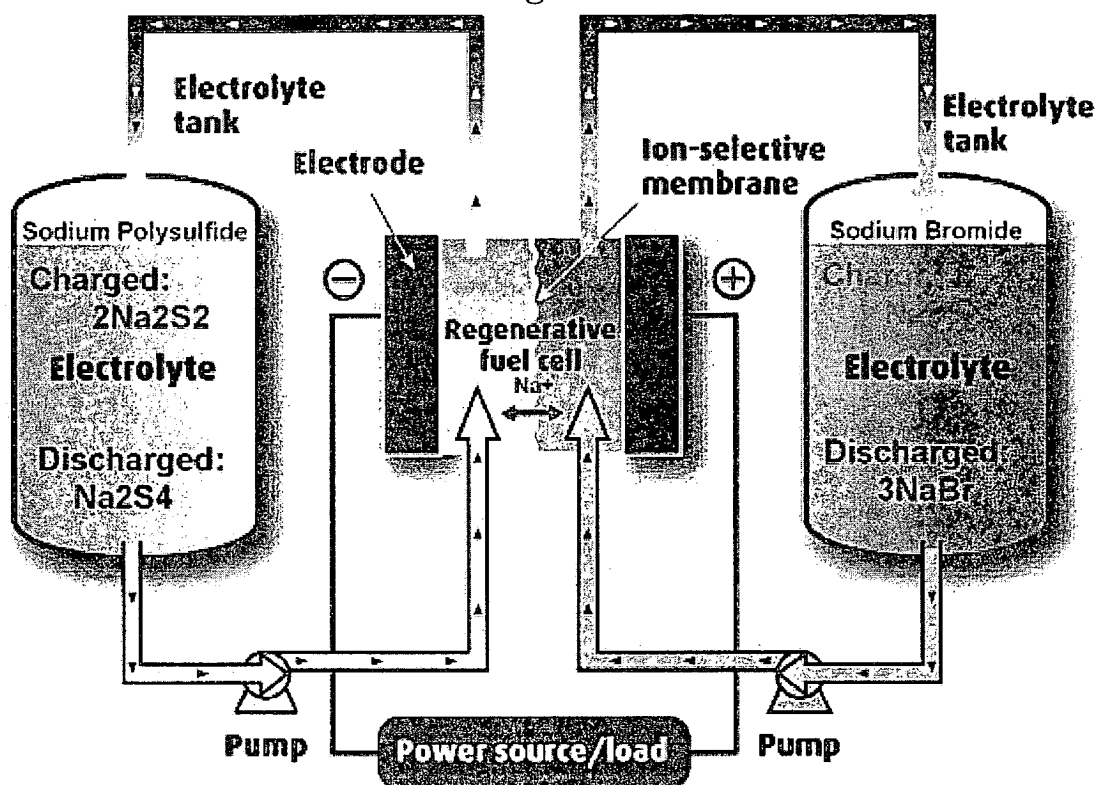
### *Lead-Acid Battery*

Lead-acid battery technology is one of the oldest and most developed battery technologies. It is a low cost and popular storage choice for power quality, UPS and some spinning reserve applications. Its application for energy management, however, has been very limited due to its short cycle life. The amount of energy that a lead-acid battery can deliver is not fixed and depends on its rate of discharge. For those reasons, the Company does not consider lead-acid batteries to be suitable technology for wind energy storage.

### *Polysulfide Bromide Battery*

The Polysulfide Bromide battery (“PSB”) is a regenerative fuel cell technology that provides a reversible electrochemical reaction between two salt solution electrolytes (sodium bromide and sodium polysulfide). PSB electrolytes are brought close together in the battery cells where they are separated by a polymer membrane that only allows positive sodium ions to go through, producing about 1.5 volts across the membrane. Cells are electrically connected in series and parallel to obtain the desired voltage and current levels. The net efficiency of this battery is about 75%. This battery works at room temperature. It has been verified in the laboratory and demonstrated at multi-kW scale in the UK. The Company is awaiting further development of this technology before it will be considered for a large-scale ( $\geq 1$  MW) demonstration project.

Figure E-5



### *Metal-Air Battery*

Metal-air batteries are the most compact and, potentially, the least expensive batteries available. They are also environmentally benign. The main disadvantage, however, is that electrical recharging of these batteries is very difficult and inefficient. Although many manufacturers offer re-fuelable units where the consumed metal is mechanically replaced and processed separately, not many developers offer an electrically rechargeable battery. Rechargeable metal air batteries that are under development have a life of only a few hundred cycles and an efficiency of about 50%.

The anodes in these batteries are commonly available metals with high energy density like aluminum or zinc that release electrons when oxidized. The cathodes or air electrodes are often made of a porous carbon structure or a metal mesh covered with proper catalysts. The electrolytes are often a good



OH<sup>-</sup> ion conductor such as KOH. The electrolyte may be in liquid form or a solid polymer membrane saturated with KOH.

Figure E-6

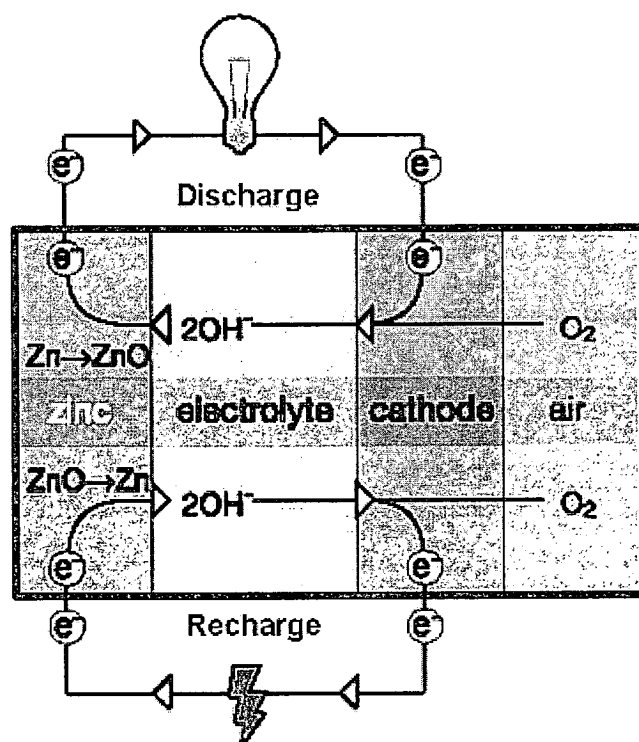


Photo Courtesy of EVonyx Inc.

While the Company is hopeful about the long-term prospects of utilizing this technology, the challenges associated with recharging them must be resolved before metal hydride batteries are considered for a large scale wind energy storage demonstration project.

### *Lithium-Ion Battery*

The main advantages of Li-ion batteries, compared to other advanced batteries, are:

1. High energy density (300 - 400 kWh/m<sup>3</sup>, 130 kWh/ton)
2. High efficiency (near 100%)

3. Long cycle life (3,000 cycles @ 80% depth of discharge)

The cathode in these batteries is a lithiated metal oxide ( $\text{LiCoO}_2$ ,  $\text{LiMO}_2$ , etc.) and the anode is made of graphitic carbon with a layer structure. The electrolyte is made up of lithium salts (such as  $\text{LiPF}_6$ ) dissolved in organic carbonates.

When the battery is being charged, the Lithium atoms in the cathode become ions and migrate through the electrolyte toward the carbon anode where they combine with external electrons and are deposited between carbon layers as lithium atoms. This process is reversed during discharge.

While Li-ion batteries took over 50% of small portable market in a few years, there are some challenges for making large-scale Li-ion batteries. The main hurdle is the high cost (above \$600/kWh).

Figure E-7

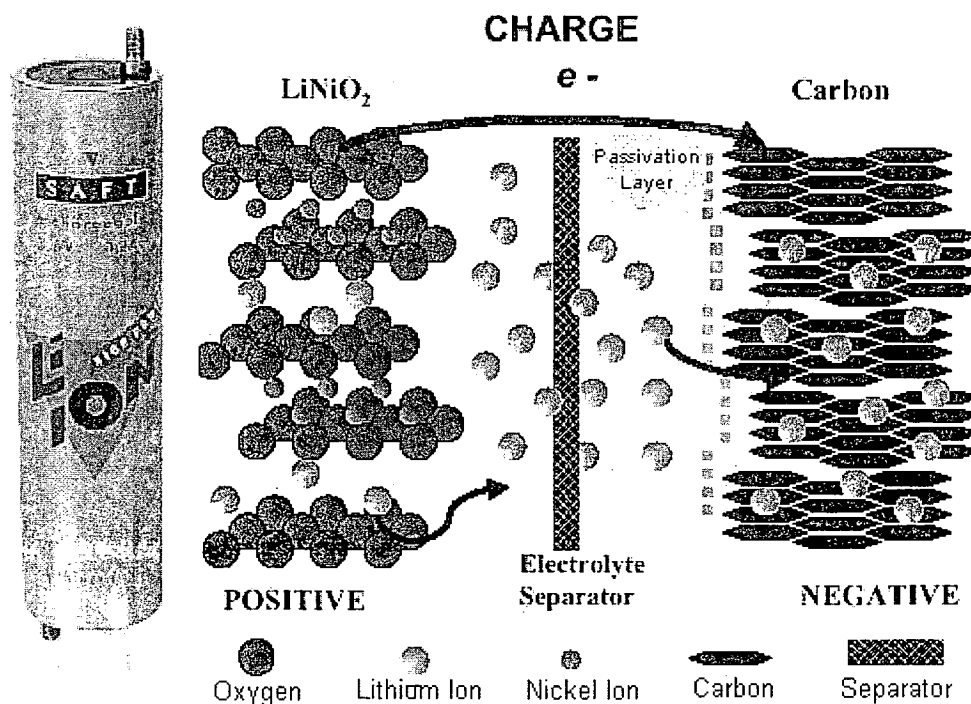


Photo Courtesy of SAFT America

*Vanadium Redox Battery* (“VRB”)

VRB store energy by employing vanadium redox couples ( $V^{2+}/V^{3+}$  in the negative and  $V^{4+}/V^{5+}$  in the positive half-cells). These are stored in mild sulfuric acid solutions (electrolytes).

During the charge/ discharge cycles,  $H^+$  ions are exchanged between the two electrolyte tanks through the hydrogen-ion permeable polymer membrane. The cell voltage is 1.4 -1.6 volts. The net efficiency of this battery can be as high as 85%. Like other flow batteries, the power and energy ratings of VRB are independent of each other.

VRB was pioneered in the Australian University of New South Wales in the early 1980's. The Australian Pinnacle VRB bought the basic patents in 1998 and licensed them to Sumitomo Electric Industries (“SEI”) and VRB Power Systems. VRB storages up to 500kW, 10 hrs (5MWh) have been installed in Japan by SEI. VRBs have also been applied for power quality applications (3MW, 1.5 sec., SEI).

Figure E-8

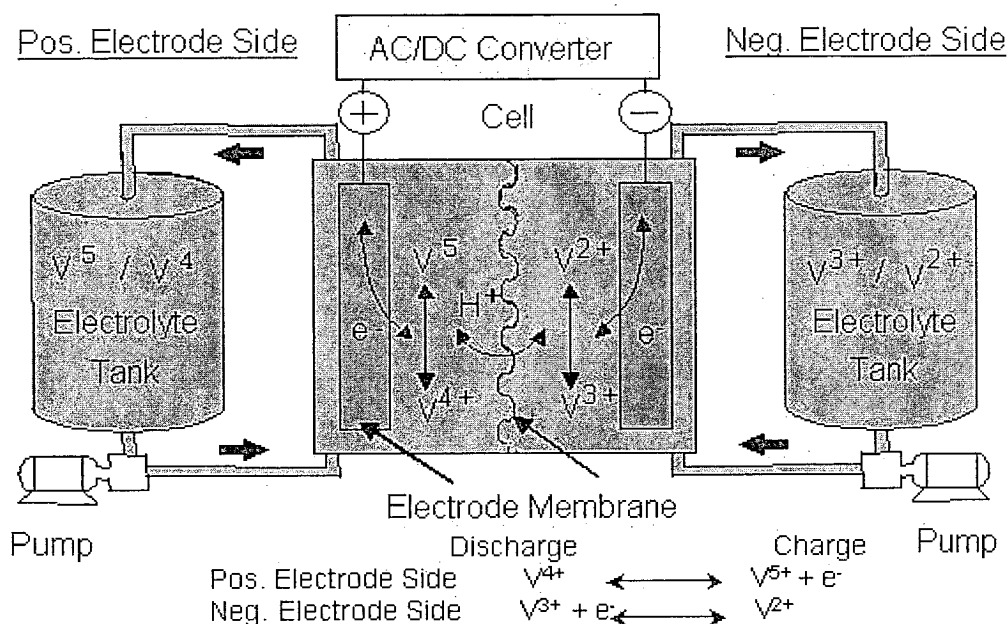


Photo Courtesy of Sumitomo Electric Industries, Ltd. (SEI) – Copyright 2001

The Company is awaiting further development of this battery technology before considering it for a large-scale demonstration project.

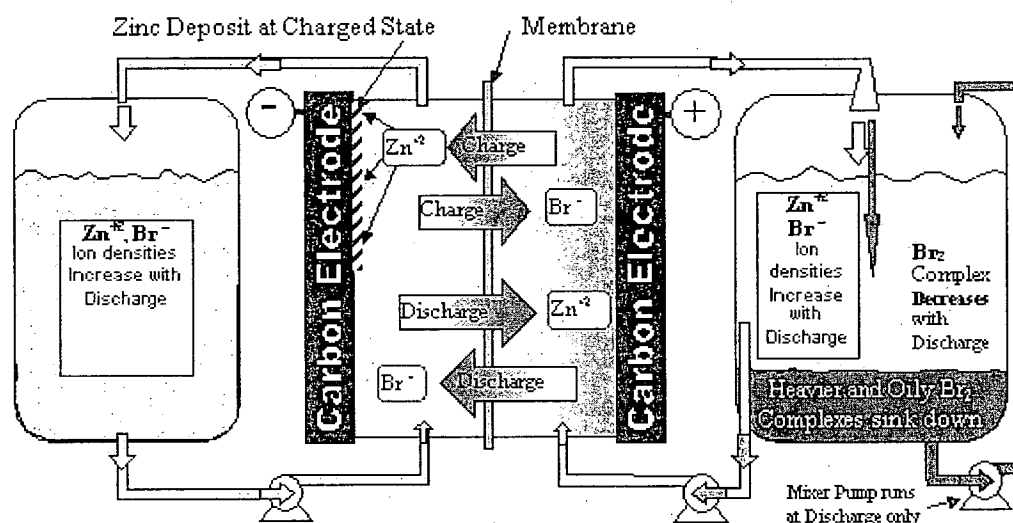
#### *Zinc Bromine ("ZnBr") Battery*

In each cell of a ZnBr battery, two different electrolytes flow past carbon-plastic composite electrodes in two compartments separated by a microporous polyolefin membrane.

During discharge, Zn and Br combine into zinc bromide, generating 1.8 volts across each cell. This will increase the  $Zn^{2+}$  and  $Br^-$  ion density in both electrolyte tanks. During charge, metallic zinc will be deposited (plated) as a thin film on one side of the carbon-plastic composite electrode. Meanwhile, bromine evolves as a dilute solution on the other side of the membrane, reacting with other agents (organic amines) to make thick bromine oil that sinks down to the bottom of the electrolytic tank. It is allowed to mix with the rest of the electrolyte during discharge. The net efficiency of this battery is about 75%.

The ZnBr battery was developed by Exxon in the early 1970's. Over the years, many multi-kWh ZnBr batteries have been built and tested. Meidisha demonstrated a 1MW/4MWh ZnBr battery in 1991 at Kyushu Electric Power Company. Some multi-kWh units are now available pre-assembled, complete with plumbing and power electronics.

Figure E-9

**At Charge:**

Neg. electrode side:  $\text{Zn}^{2+} + 2e \rightleftharpoons \text{Zn}^0$  (Zn plated on neg. electrode)  
 Pos. electrode side:  $2\text{Br}^- \rightleftharpoons \text{Br}_2(\text{aq}) + 2e$   
 (Br, complexed into a thick, oily sludge, is stored in a separate location inside container)

**At Discharge:**

Neg. electrode side:  $\text{Zn}^0 \rightleftharpoons \text{Zn}^{2+} + 2e$  (Zn ions dissolved in **both** electrolytes)  
 Pos. electrode side:  $\text{Br}_2(\text{aq}) + 2e \rightleftharpoons 2\text{Br}^-$  (Br ions dissolved in **both** electrolytes)

The Company considers this technology better suited to power quality management applications than for energy storage.

**Conclusions**

Given the potential magnitude of wind energy storage that would be needed for our, the Company believes that large scale technologies, such as pumped storage and compressed air energy storage, are either very difficult to permit or require unique geology not present in near Minnesota's best wind resources or near the Company's predominant load in the Twin Cities metro area. Scalable

storage in the form of advanced technology batteries or fuel cells as well as chemical conversion technologies hold promise, but need to be demonstrated on a smaller scale to be both operationally and economically feasible before scaling up to the potential magnitude of wind energy storage capability needed on our system. The Company will report results of its current experiments as well as any further experiments it undertakes in its next Resource Plan filing in 2009 or 2010.



## Appendix D. Renewable Development Fund

### Background on the Renewable Development Fund Program

The Xcel Energy Renewable Development fund (“RDF”) was established as part of Minnesota Statutes Section 116C.779 enacted in 1994. This Statute initially required Xcel Energy to transfer to the RDF \$500,000 for each dry cask containing spent fuel that is located at the Prairie Island Nuclear Generating Plant after January 1, 1999. In the 2003 Legislative Session, the Legislature amended this statute to require the Company increase RDF contributions to an annual amount of \$16 million. As part of this statutory amendment, the RDF is also to be used to fund the state’s small wind and on-farm biogas renewable energy production incentive (“REPI”) of up to \$10.9 million annually. Most recently, Minn. Stat. Section 116C.779 was modified during the 2007 Legislative Session to include additional annual RDF payments of \$350,000 per cask per year for each dry cask containing spent fuel located at the Monticello Nuclear Plant

The Xcel Energy RDF is financed by Xcel Energy customers to promote the start up, expansion and attraction of renewable energy projects and companies in the Xcel Energy service area. It also stimulates research and development into renewable energy technologies. Both efforts are designed to increase the market penetration of renewable energy resources at reasonable costs. Project funding to date has been in the form of grants and REPI payments. Grants support commercial technologies and research and development. The REPI is paid to qualifying small wind, biogas and hydroelectric projects operating and generating electricity in Minnesota, as approved by the Department of Commerce.

The RDF Board is responsible for administering the RDF, including implementing the funding process, evaluating and selecting proposals and disbursing funds to eligible selected applicants. Most decisions of the RDF Board are made by consensus, and in the absence of consensus, decisions are



determined by a majority. The RDF Board uses technical and professional consulting resources as necessary to administer the program. Currently the RDF Board consists of two representatives of the environmental community, William Grant and Jack Keers; one representative from the Prairie Island Indian Community, Heather Westra; two members representing Xcel Energy ratepayer interests, Mike Bull (residential ratepayers) and Mike Franklin (commercial and industrial ratepayers); and two representatives from Xcel Energy, Betsy Engelking and Brian Zelenak.

The first round of the Xcel Energy RDF program, completed in 2001, resulted in the selection of 19 projects that received nearly \$16 million in funding. The second cycle of the Xcel Energy RDF program, completed in 2005, funded 29 projects for nearly \$37 million. Funding was split between research and development of new renewable energy sources and energy production leading these technologies toward full commercialization. Past and current projects include wind, biomass, solar, hydro, bio fuels and an innovative energy project involving coal gasification.

To date, Xcel Energy has committed to RDF funding of more than \$100 million in support of RDF projects, REPI and state-directed renewable energy initiatives to identify and develop new or emerging renewable energy sources.

Xcel Energy in May 2007 issued a request for proposals initiating its third round of funding with up to \$23 million available to support new ways to produce electricity from renewable sources. Funding was available for various-sized projects in two categories: energy production, and research and development. From the grant applications submitted on July 12, 2007, 22 projects were selected to receive RDF grants. The RDF Evaluation and Selection Report was submitted to the Minnesota Public Utilities Commission for approval on December 10, 2007.

Proposals selected for 3<sup>rd</sup> Cycle RDF funding are shown in the table below.

**Table Appendix D-1  
Recommended Energy Production Proposals**

| Project Name                                                                                                   | Technology Type | Funding Granted    |
|----------------------------------------------------------------------------------------------------------------|-----------------|--------------------|
| <b>American Crystal Sugar Co.;</b> Cogeneration Facility from Biomass produced Methane.                        | Biomass         | \$2,000,000        |
| <b>Freener;</b> A Solar Electric Solution for Residential Markets.                                             | Solar           | \$1,488,922.       |
| <b>City of Minneapolis and EyeOn Energy Ltd.;</b> Solar Installation at Currie Equipment Facility.             | Solar           | \$2,000,000        |
| <b>Merrick Inc.;</b> Solar Geothermal Project                                                                  | Solar           | \$ 735,000         |
| <b>Outland Renewable Energy LLC;</b> 2 MW Solar Energy Facility Jeffers, Minnesota (Jeffers 20 Solar Project). | Solar           | \$2,000,000        |
|                                                                                                                |                 |                    |
| <b>Total</b>                                                                                                   |                 | <b>\$8,223,922</b> |

**Table Appendix D-2**  
**Recommended Research & Development Proposals**

| Project Name                                                                                                                                                                                        | Technology Type | Funding Granted     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|
| <b>University of Minnesota;</b> Development of a High-resolution Virtual Wind Simulator of Optimal design of Wind Energy Projects                                                                   | Wind            | \$ 999,999          |
| <b>University of North Dakota;</b> Indirect Liquefaction of Wood Waste for Remote Power Generation Fuel                                                                                             | Biomass         | \$ 999,065          |
| <b>University of North Dakota;</b> Mitigation of Hydrogen Sulfide with Contaminant Enhancement of Microbial Methane Production in Biomass Digesters                                                 | Biomass         | \$ 970,558          |
| <b>University of Minnesota;</b> Biomass Electricity Generation Ethanol Plants – Achieving Maximum Impact                                                                                            | Biomass         | \$ 819,159          |
| <b>Northern Plains Power Technology;</b> Assessment of the Universal Feasibility of using power System harmonics as Loss-of-Mains Detection for Distributed Energy Systems                          | Solar PV        | \$ 493,608          |
| <b>Coaltec Energy USA Inc.;</b> Gasification of Alternative fuels to convert Waste Materials to Energy – Phase Two                                                                                  | Biomass         | \$ 1,000,000        |
| <b>West Central Telephone Association;</b> Pre-Commercial Development of remote Telecom power Kit                                                                                                   | Wind            | \$ 137,000          |
| <b>Xcel Energy;</b> Proposal to Build and Test a MW Scale Sodium Sulfur (NaS) Battery Storage System in Conjunction with Existing Wind Power Plants Connected to the Grid in the Buffalo Ridge Area | Wind            | \$ 1,000,000        |
| <b>InterPhases Research,;</b> Cost-effective Pilot Line for Flexible PV Modules                                                                                                                     | Solar PV        | \$ 1,000,000        |
| <b>SarTec Corp;</b> Flue gas CO2 Capture with Rapid Growth Algae to Produce Biodiesel and Other Renewable Fuels                                                                                     | Biofuel         | \$ 350,000          |
| <b>University of Minnesota;</b> Embedded nanocrystal Dilicon Films: A New Paradigm for Improving the Stability of Thin Film Silicon                                                                 | Solar PV        | \$ 732,032          |
| <b>University of North Dakota;</b> Integrated Gas Turbine – Gasifier Pilot-Scale Power Plant                                                                                                        | Biomass         | \$ 999,728          |
| <b>University of Minnesota;</b> Development and Validation of Biomass Cropping Management Tools for Sustainable Harvesting of Energy Production Feedstocks                                          | Biomass         | \$ 979,082          |
| <b>Minnesota Valley Alfalfa Producers ;</b> Research to Apply Kinetic Disintegration System to Process Various Biomass Feedstocks for Pelletization                                                 | Biomass         | \$ 1,000,000        |
| <b>Bepex International LLC;</b> Torrefaction and Densification of Biomass Fuels for Generating Electricity                                                                                          | Biomass         | \$ 924,671          |
| <b>Community Power Corp.;</b> 50 kW Modular Biomass/Natural Gas Hybrid Power System                                                                                                                 | Biomass         | \$ 999,926          |
| <b>University of Minnesota;</b> Efficient System for Production, Pre-processing and Delivery of Biomass Feedstocks                                                                                  | Biomass         | \$ 992,989          |
|                                                                                                                                                                                                     |                 |                     |
| <b>Total</b>                                                                                                                                                                                        |                 | <b>\$14,397,817</b> |

An overview of the allocation amounts for the selected proposals is as follows:

| <b>Energy Production Project Selections</b>        | <b>RDF funding amounts</b> |
|----------------------------------------------------|----------------------------|
| Biomass                                            | \$2,000,000                |
| Solar                                              | \$6,223,992                |
| Subtotal                                           | \$8,223,922                |
| <b>Research and Development Project Selections</b> |                            |
| Biomass                                            | \$9,685,178                |
| Solar                                              | \$2,225,640                |
| Biofuels                                           | \$ 350,000                 |
| Wind                                               | \$2,136,999                |
| Subtotal                                           | \$14,397,817               |
| <b>Total RDF Project Funding</b>                   | <b>\$22,621,739</b>        |

**Appendix C**  
**Rate Analysis**

## APPENDIX C

### RATE ANALYSIS

## Preferred Plan Rate Impact Analysis

|                                        | 2008            | 2009             | 2010             | 2011             | 2012             | 2013             | 2014             | 2015             | 2016             | 2017             | 2018             | 2019             | 2020             | 2021             | 2022             |
|----------------------------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| GENERATION                             |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Fuel                                   | \$405,277       | \$473,100        | \$471,587        | \$526,826        | \$559,204        | \$527,543        | \$494,463        | \$549,412        | \$582,715        | \$591,861        | \$600,275        | \$629,069        | \$637,758        | \$693,858        | \$698,771        |
| O&M                                    | \$530,690       | \$557,371        | \$553,427        | \$597,799        | \$609,175        | \$604,558        | \$614,519        | \$717,193        | \$683,580        | \$726,796        | \$804,092        | \$803,859        | \$822,691        | \$931,781        | \$914,571        |
| Purchased Power                        | \$341,142       | \$356,818        | \$359,736        | \$367,121        | \$368,375        | \$371,151        | \$370,649        | \$376,029        | \$372,766        | \$380,864        | \$370,721        | \$385,055        | \$392,211        | \$438,347        | \$459,189        |
| PPA Wind                               | \$108,289       | \$133,927        | \$137,173        | \$162,015        | \$194,621        | \$224,073        | \$220,427        | \$251,863        | \$248,554        | \$278,352        | \$272,060        | \$262,320        | \$297,770        | \$291,945        | \$287,830        |
| Owned Wind                             | \$0             | \$58,642         | \$113,426        | \$165,738        | \$185,214        | \$205,015        | \$258,475        | \$278,154        | \$333,015        | \$353,128        | \$410,982        | \$467,593        | \$486,764        | \$466,809        | \$489,892        |
| PTC                                    | \$0             | \$(16,630)       | \$(33,086)       | \$(51,932)       | \$(69,526)       | \$(85,466)       | \$(104,216)      | \$(124,578)      | \$(126,035)      | \$(127,510)      | \$(129,002)      | \$(111,830)      | \$(94,870)       | \$(75,244)       | \$(57,043)       |
| Depreciation & Return on Rate Bas      | \$546,007       | \$596,429        | \$609,294        | \$663,847        | \$757,418        | \$807,805        | \$756,243        | \$805,525        | \$757,326        | \$710,300        | \$744,304        | \$696,736        | \$649,926        | \$638,165        | \$716,116        |
| NSPW Prod Fixed Cost                   | \$24,099        | \$22,492         | \$20,886         | \$19,279         | \$17,673         | \$16,066         | \$14,459         | \$12,853         | \$11,246         | \$9,640          | \$8,033          | \$6,426          | \$4,820          | \$4,821          | \$4,822          |
| Effluent                               | \$(28,163)      | \$(34,947)       | \$(14,335)       | \$(18,933)       | \$(27,749)       | \$(29,549)       | \$(29,338)       | \$(21,063)       | \$(25,055)       | \$(25,248)       | \$(17,326)       | \$(19,935)       | \$(20,363)       | \$(20,588)       | \$(24,048)       |
| DSM                                    | 47,002          | 48,350           | 59,498           | 61,891           | 64,314           | 66,727           | 69,136           | 71,575           | 74,073           | 76,671           | 79,379           | 82,214           | 85,156           | 85,157           | 85,158           |
| Margins                                | \$(47,184)      | \$(22,779)       | \$(21,177)       | \$(39,951)       | \$(47,724)       | \$(39,496)       | \$(57,732)       | \$(83,217)       | \$(104,818)      | \$(108,117)      | \$(107,275)      | \$(118,873)      | \$(140,866)      | \$(47,184)       | \$(47,184)       |
| Total Gen Rev Req                      | \$1,927,158     | \$2,172,773      | \$2,256,429      | \$2,453,699      | \$2,610,994      | \$2,668,427      | \$2,607,084      | \$2,833,745      | \$2,807,365      | \$2,866,737      | \$3,036,244      | \$3,082,635      | \$3,120,995      | \$3,407,866      | \$3,528,075      |
| Annual Sales                           | 37,726,342      | 38,139,714       | 38,735,506       | 39,265,066       | 39,758,021       | 40,221,329       | 40,684,143       | 41,159,030       | 41,665,417       | 42,176,904       | 42,718,209       | 43,256,754       | 43,793,364       | 43,793,365       | 43,793,366       |
| Average \$/KWH                         | 0.051           | 0.057            | 0.058            | 0.062            | 0.066            | 0.066            | 0.064            | 0.069            | 0.067            | 0.068            | 0.071            | 0.071            | 0.071            | 0.078            | 0.081            |
| Growth Rate                            |                 | 11.52%           | 2.25%            | 7.28%            | 5.09%            | 1.02%            | -3.41%           | 7.44%            | -2.13%           | 0.88%            | 4.57%            | 0.26%            | 0.00%            | 9.19%            | 3.53%            |
| Average Compound Growth Rate 2008-2022 |                 |                  | 3.31%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Average Compound Growth Rate 2009-2022 |                 |                  | 2.70%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| TRANSMISSION AND DISTRIBUTION          |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Transmission                           |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Depreciation & Return on Rate Bas      | \$158,690       | \$178,731        | \$193,819        | \$227,954        | \$272,652        | \$292,982        | \$313,344        | \$333,736        | \$354,159        | \$374,615        | \$395,104        | \$415,626        | \$436,182        | \$464,155        | \$492,163        |
| O&M                                    | \$237,620       | \$244,273        | \$251,112        | \$258,144        | \$265,372        | \$272,802        | \$280,441        | \$288,293        | \$296,365        | \$304,663        | \$313,194        | \$321,963        | \$330,978        | \$339,993        | \$349,008        |
| NSPW Fixed Cost                        | <u>\$40,737</u> | <u>\$41,959</u>  | <u>\$43,218</u>  | <u>\$44,514</u>  | <u>\$45,850</u>  | <u>\$47,225</u>  | <u>\$48,642</u>  | <u>\$50,101</u>  | <u>\$51,604</u>  | <u>\$53,153</u>  | <u>\$54,747</u>  | <u>\$56,390</u>  | <u>\$58,081</u>  | <u>\$58,082</u>  | <u>\$58,083</u>  |
| TOTAL                                  | \$437,047       | \$464,963        | \$488,149        | \$530,612        | \$583,873        | \$613,010        | \$642,426        | \$672,130        | \$702,129        | \$732,431        | \$763,045        | \$793,978        | \$825,241        | \$862,230        | \$899,255        |
| Distribution                           |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Depreciation & Return on Rate Bas      | \$277,399       | \$300,577        | \$302,565        | \$304,865        | \$307,487        | \$310,442        | \$313,739        | \$317,390        | \$321,405        | \$325,797        | \$330,577        | \$335,757        | \$341,350        | \$367,471        | \$394,032        |
| O&M                                    | <u>\$98,200</u> | <u>\$100,947</u> | <u>\$103,771</u> | <u>\$106,674</u> | <u>\$109,658</u> | <u>\$112,726</u> | <u>\$115,880</u> | <u>\$119,121</u> | <u>\$122,454</u> | <u>\$125,879</u> | <u>\$129,401</u> | <u>\$133,021</u> | <u>\$136,742</u> | <u>\$140,463</u> | <u>\$144,185</u> |
| TOTAL                                  | \$375,599       | \$401,524        | \$406,336        | \$411,539        | \$417,146        | \$423,168        | \$429,619        | \$436,511        | \$443,859        | \$451,677        | \$459,978        | \$468,778        | \$478,092        | \$507,934        | \$538,216        |
| Total T&D Rev Req                      | \$812,645       | \$866,487        | \$894,485        | \$942,151        | \$1,001,019      | \$1,036,178      | \$1,072,045      | \$1,108,641      | \$1,145,988      | \$1,184,107      | \$1,223,022      | \$1,262,756      | \$1,303,333      | \$1,370,165      | \$1,437,471      |
| Annual Sales                           | 37,726,342      | 38,139,714       | 38,735,506       | 39,265,066       | 39,758,021       | 40,221,329       | 40,684,143       | 41,159,030       | 41,665,417       | 42,176,904       | 42,718,209       | 43,256,754       | 43,793,364       | 43,793,365       | 43,793,366       |
| Average \$/Kwh                         | 0.022           | 0.023            | 0.023            | 0.024            | 0.025            | 0.026            | 0.026            | 0.027            | 0.028            | 0.028            | 0.029            | 0.029            | 0.030            | 0.031            | 0.033            |
| Growth Rate                            |                 | 5.47%            | 1.64%            | 3.91%            | 4.93%            | 2.32%            | 2.28%            | 2.22%            | 2.11%            | 2.07%            | 1.98%            | 1.96%            | 1.95%            | 5.13%            | 4.91%            |
| Average Compound Growth Rate 2008-2022 |                 |                  | 3.05%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Average Compound Growth Rate 2009-2022 |                 |                  | 2.87%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| ADMINISTATION AND OTHER                |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Other O&M                              | 318,691         | 327,615          | 336,788          | 346,218          | 355,912          | 365,878          | 376,122          | 386,654          | 397,480          | 408,609          | 420,050          | 431,812          | 443,902          | 456,332          | 469,109          |
| Revenue Off Set                        | (118,000)       | (121,304)        | (124,701)        | (128,192)        | (131,782)        | (135,471)        | (139,265)        | (143,164)        | (147,173)        | (151,293)        | (155,530)        | (159,884)        | (164,361)        | (168,963)        | (173,694)        |
| SYSTEM TOTAL                           |                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Total Revenue Req                      | 2,940,495       | 3,245,570        | 3,363,002        | 3,613,876        | 3,836,144        | 3,935,011        | 3,915,987        | 4,185,875        | 4,203,660        | 4,308,160        | 4,523,787        | 4,617,319        | 4,703,870        | 5,065,399        | 5,260,960        |
| Annual Sales                           | 37,726,342      | 38,139,714       | 38,735,506       | 39,265,066       | 39,758,021       | 40,221,329       | 40,684,143       | 41,159,030       | 41,665,417       | 42,176,904       | 42,718,209       | 43,256,754       | 43,793,364       | 43,793,365       | 43,793,366       |
| Average \$/KWh                         | 0.078           | 0.085            | 0.087            | 0.092            | 0.096            | 0.098            | 0.096            | 0.102            | 0.101            | 0.102            | 0.106            | 0.107            | 0.107            | 0.116            | 0.120            |
| Growth Rate                            |                 | 9.18%            | 2.02%            | 6.01%            | 4.83%            | 1.40%            | -1.62%           | 5.66%            | -0.80%           | 1.24%            | 3.67%            | 0.80%            | 0.63%            | 7.69%            | 3.86%            |
| Average Compound Growth Rate 2008-2022 |                 |                  | 3.14%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
| Average Compound Growth Rate 2009-2022 |                 |                  | 2.69%            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |



## Appendix B

### Strategist Modeling Assumptions

The assumptions used in Strategist were the most up to date available in October & November 2007 and were intended to provide accurate measure of Xcel Energy's generation fleet and associated costs.

#### Existing and Generic Thermal Units

Xcel Energy has about 50 existing thermal units in South Dakota, Minnesota, and Wisconsin. In Strategist the maximum capacity input is the maximum energy a unit can produce in one hour. The value used was selected to reflect the Company's best estimate of each unit's maximum dependable capability. The retirement dates in the table are based on our Preferred Plan, which assumes life extensions of our peaking facilities. For the generic units added in the Preferred Plan the maximum capacity and accredited capacity data is based on a proprietary study done for the Company. The July and January accredited capacity is based on Uniform Rating of Generating Equipment (URGE) testing done by the Company.

| Unit            | Maximum Capacity | July Accredited Capacity | January Accredited Capacity | Retirement Date | In-service Date/First Yr Available |
|-----------------|------------------|--------------------------|-----------------------------|-----------------|------------------------------------|
| <b>*COAL</b>    |                  |                          |                             |                 |                                    |
| AS King 1       | 558              | 580                      | 553                         | 2047            |                                    |
| BlackDog 3      | 86               | 107                      | 107                         | 2011            |                                    |
| BlackDog 4      | 165              | 175                      | 175                         | 2011            |                                    |
| Rivside 7       | 142              | 145                      | 150                         | 2008            |                                    |
| Rivside 8       | 217              | 231                      | 235                         | 2008            |                                    |
| Sherco 1        | 697              | 701                      | 701                         | 2100            |                                    |
| Sherco 2        | 682              | 706                      | 706                         | 2100            |                                    |
| Sherco 3        | 504              | 522                      | 522                         | 2100            |                                    |
| <b>*NUCLEAR</b> |                  |                          |                             |                 |                                    |
| Monti 1         | 594              | 568                      | 594                         | 2029            |                                    |
| P Island 1      | 549              | 524                      | 549                         | 2033            |                                    |
| P Island 2      | 546              | 520                      | 546                         | 2034            |                                    |
| <b>*BIOMASS</b> |                  |                          |                             |                 |                                    |
| Bayfront 4      | 20               | 21                       | 19                          | 2023            |                                    |
| Bayfront 5      | 20               | 24                       | 17                          | 2023            |                                    |
| Bayfront 6      | 27               | 28                       | 28                          | 2020            |                                    |



|                 |     |     |     |      |
|-----------------|-----|-----|-----|------|
| Fch Isld 12     | 16  | 28  | 28  | 2023 |
| Redwing 12      | 17  | 21  | 22  | 2012 |
| Wilmarth 12     | 17  | 19  | 20  | 2012 |
| <b>*GAS CTs</b> |     |     |     |      |
| Anson 2         | 128 | 107 | 128 | 2021 |
| Anson 3         | 128 | 108 | 128 | 2021 |
| Anson 4         | 180 | 159 | 180 | 2035 |
| Bluelake 7      | 186 | 159 | 186 | 2035 |
| Bluelake 8      | 183 | 158 | 183 | 2035 |
| Flambeau 1      | 17  | 15  | 20  | 2012 |
| Granite 1       | 17  | 15  | 19  | 2018 |
| Granite 2       | 17  | 15  | 20  | 2018 |
| Granite 3       | 18  | 16  | 20  | 2018 |
| Granite 4       | 17  | 14  | 18  | 2018 |
| Inverhil 1      | 68  | 60  | 71  | 2050 |
| Inverhil 2      | 65  | 57  | 71  | 2050 |
| Inverhil 3      | 66  | 59  | 71  | 2050 |
| Inverhil 4      | 67  | 61  | 71  | 2050 |
| Inverhil 5      | 65  | 58  | 69  | 2050 |
| Inverhil 6      | 68  | 60  | 71  | 2050 |
| Key City 1      | 17  | 15  | 20  | 2013 |
| Key City 2      | 17  | 15  | 20  | 2013 |
| Key City 3      | 17  | 16  | 20  | 2013 |
| Key City 4      | 17  | 16  | 20  | 2013 |
| Wheaton 1       | 66  | 56  | 69  | 2050 |
| Wheaton 2       | 75  | 65  | 80  | 2050 |
| Wheaton 3       | 66  | 57  | 70  | 2050 |
| Wheaton 4       | 68  | 56  | 68  | 2050 |

| Unit              | Maximum Capacity | July Accredited Capacity | January Accredited Capacity | Retirement Date | In-service Date/First Yr Available |
|-------------------|------------------|--------------------------|-----------------------------|-----------------|------------------------------------|
| <b>*GAS CCs</b>   |                  |                          |                             |                 |                                    |
| BlkDg CC 52       | 290              | 257                      | 306                         | 2032            |                                    |
| HB_CC 1           | 312              | 262                      | 0                           | 2047            |                                    |
| HB_CC 2           | 312              | 262                      | 0                           | 2047            |                                    |
| RS_CC 1           | 254              | 0                        | 0                           | 2047            |                                    |
| RS_CC 2           | 254              | 0                        | 0                           | 2047            |                                    |
| BLKDG CC 67       | 300              | 252                      | 300                         | 2100            | 2013                               |
| <b>*OIL</b>       |                  |                          |                             |                 |                                    |
| Bluelake 1        | 51               | 41                       | 54                          | 2030            |                                    |
| Bluelake 2        | 51               | 42                       | 54                          | 2030            |                                    |
| Bluelake 3        | 51               | 40                       | 53                          | 2030            |                                    |
| Bluelake 4        | 61               | 50                       | 64                          | 2030            |                                    |
| Fch Isld 3        | 82               | 69                       | 86                          | 2023            |                                    |
| Fch Isld 4        | 82               | 70                       | 88                          | 2023            |                                    |
| Wheaton 5         | 74               | 62                       | 75                          | 2035            |                                    |
| Wheaton 6         | 75               | 60                       | 75                          | 2035            |                                    |
| InvrD78 78        | 4                | 3                        | 4                           | 2047            |                                    |
| Diesels 1         | 10               | 6                        | 8                           | 2047            |                                    |
| <b>*PURCHAS 1</b> |                  |                          |                             |                 |                                    |
| St. Paul 1        | 25               | 25                       | 25                          | 2023            |                                    |
| VirgHibb 1        | 35               | 35                       | 35                          | 2026            |                                    |
| Fibromin 1        | 50               | 50                       | 50                          | 2028            |                                    |
| Invenerg 1        | 357              | 301                      | 0                           | 2025            |                                    |
| 2011CT 1          | 160              | 143                      | 168                         | 2047            | 2011                               |
| LSCotGrv 1        | 262              | 244                      | 275                         | 2027            |                                    |
| CalpMnkt 1        | 365              | 311                      | 361                         | 2025            |                                    |
| <b>*GENERICS</b>  |                  |                          |                             |                 |                                    |
| 100_LMS 1         | 96               | 82                       | 96                          | 2047            | 2012                               |
| 160_CT 1          | 160              | 136                      | 160                         | 2047            | 2012                               |
| 627_CC 1          | 627              | 564                      | 627                         | 2047            | 2015                               |
| 500_PC 1          | 500              | 475                      | 500                         | 2047            |                                    |
| 600_IGCC 1        | 600              | 510                      | 600                         | 2047            | 2015                               |
| 1000_Nuc 1        | 1000             | 960                      | 1000                        | 2047            |                                    |
| IGCCwSEQ 1        | 600              | 600                      | 600                         | 2047            |                                    |
| SCPCwSEQ 1        | 420              | 399                      | 420                         | 2047            | 2015                               |

## Transactions/PPAs

|                  | Maximum<br>Capacity (MW) | Accredited<br>Capacity (MW) | Annual Energy<br>(Gwh) | In-Service Date | Retirement<br>Date |
|------------------|--------------------------|-----------------------------|------------------------|-----------------|--------------------|
| ShortTrm         | 644                      | 644                         | 1.421952               | 2008            | 2100               |
| Barron           | 0.265                    | 0                           | 0.1314                 | 2000            | 2100               |
| FlyngCld         | 4.6                      | 4.6                         | 0.4010002              | 2000            | 2019               |
| HERC             | 33.7                     | 33.7                        | 221.412                | 2000            | 2017               |
| MNMethan         | 3.1                      | 3.1                         | 20.63799               | 2000            | 2014               |
| PineBend         | 12                       | 12                          | 68.327                 | 2000            | 2026               |
| RARH             | 12                       | 0                           | 29.86556               | 2008            | 2028               |
| <b>*HYDRO</b>    |                          |                             |                        |                 |                    |
| Byllesby         | 2.36                     | 2.596                       | 14.469                 | 2000            | 2100               |
| CrownHyd         | 0                        | 0                           | 0                      | 2100            | 2027               |
| EauGalle         | 0.3                      | 0.3                         | 1.448001               | 2000            | 2026               |
| FordMoCo         | 18                       | 18                          | 100.724                | 2000            | 2009               |
| Hastings         | 3.3                      | 3.3                         | 20.23559               | 2000            | 2033               |
| LacCourt         | 3.1                      | 3.1                         | 8.146792               | 2000            | 2021               |
| Neshonoc         | 0.4                      | 0.4                         | 2.452799               | 2000            | 2020               |
| Rapidan          | 2.8                      | 2.8                         | 17.16699               | 2000            | 2017               |
| SAF Hydr         | 0                        | 0                           | 0                      | 2100            | 2022               |
| St.Cloud         | 7.9                      | 6.6992                      | 44.18498               | 2000            | 2021               |
| <b>*MANITOBA</b> |                          |                             |                        |                 |                    |
| MH500            | 500                      | 500                         | 2091.428               | 2000            | 5015               |
| Div150In         | 150                      | 150                         | 132.48                 | 2000            | 2015               |
| Div200In         | 200                      | 200                         | 176.64                 | 2000            | 2015               |
| Dv150out         | 150                      | 0                           | 0.651599               | 2000            | 2015               |
| Dv200out         | 200                      | 0                           | 0.8688014              | 2000            | 2015               |
| <b>*WIND</b>     |                          |                             |                        |                 |                    |
| SmalWind         | 184.06                   | 21.70067                    | 554.7561               | 2000            | 2099               |
| WoodStck         | 10.2                     | 1.31784                     | 32.93192               | 2000            | 2034               |
| Lakota           | 11.25                    | 1.4535                      | 36.32197               | 2000            | 2034               |
| Shaokata         | 11.88                    | 1.534896                    | 38.356                 | 2000            | 2034               |
| Velva            | 11.88                    | 1.481436                    | 37.34566               | 2000            | 2026               |
| NorthWnd         | 14                       | 0                           | 10.21559               | 2008            | 2028               |
| NorthCom         | 16                       | 0                           | 11.67496               | 2008            | 2028               |
| Kenyon           | 18.9                     | 0                           | 14.71679               | 2008            | 2028               |
| Ewington         | 19.95                    | 2.35011                     | 60.10678               | 2007            | 2027               |
| GrantCo          | 0                        | 0                           | 0                      | 2009            | 2028               |
| Herman           | 0                        | 0                           | 0                      | 2009            | 2028               |
| WestStev         | 0                        | 0                           | 0                      | 2009            | 2028               |
| WindPowr         | 25                       | 3.23                        | 80.71548               | 2000            | 2018               |

|          |        |          |          |      |      |
|----------|--------|----------|----------|------|------|
| Jeffers  | 50     | 5.89     | 150.6436 | 2007 | 2027 |
| Moraine  | 51     | 6.5892   | 164.6596 | 2003 | 2018 |
| Chanaram | 85.5   | 11.0466  | 276.047  | 2003 | 2023 |
| FPL Mowr | 98.9   | 10.71087 | 279.9105 | 2006 | 2026 |
| LkBnton1 | 107.25 | 13.8567  | 346.2695 | 2000 | 2023 |
| LkBnton2 | 103.5  | 13.3722  | 334.1622 | 2000 | 2030 |
| MNDakota | 150    | 20.46    | 504.6496 | 2007 | 2022 |
| Fenton   | 200    | 25.84    | 645.7239 | 2007 | 2032 |
| GrandMed | 100    | 13.6     | 334.9539 | 2009 | 2033 |
| CBED1    | 100    | 11.8     | 300.5987 | 2008 | 2033 |
| CBED2    | 200    | 23.6     | 601.1974 | 2010 | 2035 |

## Hydro Units

|             | Annual Energy<br>(Gwh) | Accredited<br>Capacity (MW) |
|-------------|------------------------|-----------------------------|
| AppleRiv 1  | 11.555                 | 3                           |
| BigFalls 1  | 26.313                 | 8                           |
| CedarFls 1  | 26.60249               | 7                           |
| Chippewa 1  | 44.609                 | 24                          |
| Cornell 1   | 57.217                 | 33                          |
| EauClare 1  | 30.067                 | 8                           |
| Hayward 1   | 1.405857               | 1                           |
| HennIsld 1  | 57.151                 | 11                          |
| Holcombe 1  | 64.369                 | 36                          |
| JimFalls 1  | 80.58202               | 57                          |
| Ladysmith 1 | 8.097047               | 3                           |
| Menomoni 1  | 19.102                 | 6                           |
| Riverdal 1  | 2.251                  | 2                           |
| SaxonFls 1  | 9.877274               | 2                           |
| St.Croix 1  | 98.021                 | 24                          |
| Superior 1  | 10.906                 | 2                           |
| Thornapl 1  | 7.057001               | 2                           |
| Trego 1     | 6.083                  | 2                           |
| WhiteRiv 1  | 3.995                  | 2                           |
| Wissota 1   | 92.15601               | 36                          |

## Genetic Wind

[illegible]

1 The Capacity Factor for wind is 12.5%

## Fuel

| Spot & Delivery     | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Coal <sup>1</sup>   | 1.825  | 1.894  | 1.926  | 2.069  | 2.052  | 2.059  | 2.059  | 2.070  |
| Nuke                | 0.519  | 0.517  | 0.726  | 0.776  | 0.990  | 1.037  | 1.119  | 1.139  |
| Bio                 | 1.219  | 1.242  | 1.267  | 1.293  | 1.319  | 1.347  | 1.375  | 1.404  |
| RDF                 | 0.194  | 0.198  | 0.202  | 0.206  | 0.210  | 0.215  | 0.219  | 0.224  |
| NatGas <sup>2</sup> | 8.384  | 8.785  | 8.655  | 8.426  | 8.214  | 6.990  | 7.083  | 7.452  |
| Oil                 | 16.240 | 15.677 | 14.846 | 14.071 | 13.466 | 11.757 | 11.885 | 12.453 |

| Spot & Delivery     | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   |
|---------------------|--------|--------|--------|--------|--------|--------|--------|
| Coal <sup>1</sup>   | 2.104  | 2.148  | 2.182  | 2.227  | 2.272  | 2.307  | 2.353  |
| Nuke                | 1.131  | 1.128  | 1.093  | 1.083  | 1.092  | 1.089  | 1.112  |
| Bio                 | 1.431  | 1.457  | 1.485  | 1.513  | 1.541  | 1.570  | 1.600  |
| RDF                 | 0.228  | 0.233  | 0.237  | 0.241  | 0.246  | 0.251  | 0.255  |
| NatGas <sup>2</sup> | 7.728  | 7.834  | 7.745  | 8.001  | 8.327  | 8.558  | 8.879  |
| Oil                 | 13.015 | 13.400 | 13.383 | 13.882 | 14.495 | 14.903 | 15.455 |

1 This price is representative of the WY and MT coal that we burn at our coal fired plants.

The price is a combination of spot and rail/delivery costs.

2 Natural gas prices through 2012 are taken directly from the reference day's

(in this case October 26, 2007) closing prices for the NYMEX Natural Gas forward contracts.

Pricing from 2013 - 2022 is developed by taking the simple average of the forward estimates from various third party and governmental entities.

Gas prices in all years includes an demand cost adder.

## Financial

|                                     |       |
|-------------------------------------|-------|
| Composite Tax Rate (%)              | 41.37 |
| Customer Discount Rate (%)          | 8.18  |
| Debt Service Reserve Percent (%)    | 0     |
| Federal Income Tax Rate (%)         | 35    |
| Inflation Rate (%)                  | 1.99  |
| Real Discount Rate (%)              | 5.44  |
| Reserve and Contingency Reserve (%) | 0     |
| Utility Discount Rate (%)           | 7.42  |

|                                      |          |      |
|--------------------------------------|----------|------|
| Weighted Cost of Capital (%)         | 7.42     |      |
| AFUDC Offset Percent (%)             | 0        |      |
| AFUDC Rate (%)                       | 8.36     |      |
| Capitalized Interest Debt Rate (%)   | 7.08     |      |
| Debt Portion of AFUDC (%)            | 0        |      |
| Debt Structure for Book (%)          | 48.33    |      |
| Debt Structure for Tax (%)           | 48.33    |      |
| Desired Return on Rate Base (%)      | 7.42     |      |
| Insurance Rate (%)                   | 0.04     |      |
| ITC Rate (%)                         | 0        |      |
| Long Term Debt Interest Rate (%)     | 7.08     |      |
| Nuclear Waste Disposal Rate (\$/MWH) | \$0.00   |      |
| Other Tax Rate (%)                   | 0        |      |
| Property Tax Rate (%)                | 1.67     |      |
| Revenue Tax Factor (%)               | 0        |      |
|                                      |          | %    |
| ESCALATION RATE SCHEDULE             | Labor    | 3.34 |
|                                      | NonLabor | 1.17 |
|                                      | Capital  | 1.88 |
|                                      | Weighted | 1.99 |
|                                      | L25C75   | 1.71 |
|                                      | L50C50   | 2.26 |
|                                      | L75C25   | 2.8  |
|                                      | 4 Prct   | 4    |
|                                      | 3 Prct   | 3    |
|                                      | 2 Prct   | 2    |
|                                      | 5 Prct   | 5    |
|                                      | 6 Prct   | 6    |
|                                      | 7 Prct   | 7    |
|                                      | 1Prct    | 1    |
|                                      | L40C60   | 1.99 |



## **Appendix A**

### **Forecast Methodology**

**APPENDIX A**  
**Xcel Energy**  
**PEAK DEMAND AND ANNUAL ELECTRIC**  
**CONSUMPTION FORECAST**  
**7610.0320 – Subparts 1, 2, 3, 4 and 5**

**FORECAST METHODOLOGY**

**OVERALL METHODOLOGICAL FRAMEWORK**

Xcel Energy prepares its forecast by major customer class and jurisdiction, using a variety of statistical and econometric techniques. The NSP System serves five jurisdictions. Minnesota, North Dakota and South Dakota are served by Northern States Power Company. Wisconsin and Michigan are served by Northern States Power Company, a Wisconsin corporation (NSPW). The overall methodological framework is “model oriented”. The NSP and NSPW Systems operate as an integrated system. The forecast is referred to as the 2007 IRP Forecast (October 2007).

**SPECIFIC ANALYTICAL TECHNIQUES**

1. Econometric Analysis. Xcel Energy uses econometric analysis to develop jurisdictional MWh sales forecasts at the customer meter for the following sectors:
  - a. Residential without Space Heating;
  - b. Residential with Space Heating;
  - c. Small Commercial and Industrial;
  - d. Large Commercial and Industrial.Xcel Energy also uses econometric analysis to develop the total system Mw demand forecast.
2. Trend analysis is used for the “Other” sectors, which includes Public Street and Highway Lighting, Other Sales to Public Authorities, Interdepartmental sales, and Municipals (firm Wholesale).
3. Loss Factor Methodology. Loss factors by legal entity are used to convert the sales forecasts into system energy requirements (at the generator).
4. Judgment. Judgment is inherent to the development of any forecast. Whenever possible, Xcel Energy uses quantitative models to structure its judgment in the forecasting process.

The sales forecasts are estimates of MWh levels measured at the customer meter. They do not include line or other losses. The various jurisdictional

class forecasts are summed to yield the total system sales forecast. Native energy requirements are measured at the generator and include line and other losses. Xcel Energy creates native energy requirements based on the sales forecasts. A system loss factor for each legal entity, developed based on average historical losses, is applied to the sales forecast to calculate total losses. The sum of the MWh sales and losses equals native energy requirements. The native energy requirements, along with peak producing weather and binary variables, are then used as independent variables within an econometric model to forecast Mw peak demand for the Xcel Energy North System. Summing the various jurisdictional class forecasts yields the total system sales forecast. A monthly loss factor is applied to convert MWh sales to MWh native energy requirements.

## MODELS USED

1. Residential Econometric Models. Sales to the residential sectors represent 27.0% of its total NSP System electric sales in 2006. Residential sales are divided into with space heating and without space heating customer classes for each jurisdiction. Ordinary Least Squares models using historical data are developed for each residential sector. A variety of independent variables are used in the models, including:
  - Number of customers;
  - Actual heating and temperature humidity index (THI) degree days;
  - Number of monthly billing days.
2. Small Commercial and Industrial Econometric Models. The small commercial and industrial sector represents 41.6% of NSP System electric sales in 2006. The models are ordinary least squares regressions using historical data. The models include a combination of variables, including the following:
  - Number of small commercial and industrial customers;
  - Gross Metro Product for respective jurisdiction;
  - Actual heating and temperature humidity index (THI) degree days;
3. Large Commercial and Industrial Econometric Models. Sales to the large commercial and industrial sector represent 27.8 % of NSP System electric sales in 2006. The models are OLS regressions using historical data and a combination of variables, including the following:
  - Employment for respective jurisdiction;
  - Number of monthly billing days;
  - Indicator variables such as CI reclassification.

4. Others. Sales to the “Others” sector represent 0.7 % of NSP System electric sales in 2006. This sector includes Public Street and Highway Lighting (PSHL), Sales to Public Authorities (OSPA) and Interdepartmental (IDS) sales. Because this class represents a very small portion of the total sales, trend analysis is used and very little growth is forecast.
5. Municipals. Sales to the Municipal utility sector represent 2.9 % of NSP System electric sales in 2006. The municipal class is forecast using separate trend analysis at the individual customer level for NSP and NSPW. The forecast of these municipal customers only includes firm wholesale customer usage.
6. Peak Demand Model. An econometric model is developed to forecast base peak demand for the entire planning period. The model includes a combination of variables, including the following:
  - Weather normalized native energy requirements
  - Peak producing weather by month
  - Binary variables

## **METHODOLOGY STRENGTHS AND WEAKNESSES**

The strength of the process Xcel Energy uses for this forecast is the richness of the information obtained during the analysis. Xcel Energy’s econometric forecasting models are based on sound economic and statistical theory. Historical modeling and forecast drivers are based on economic and demographic variables that are easily measured and analyzed. The use of models by class and jurisdiction gives greater insight into how the NSP System is growing, thereby providing better information for decisions to be made in the areas of generation, transmission, marketing, conservation, and load management.

With respect to accuracy, forecasts of this duration are inherently uncertain. Planners and decision makers must be keenly aware of the inherent risk that accompanies long-term forecasts. They must also develop plans that are robust over a wide range of future outcomes.

## **DATA DEFINITIONS**

The following is a list of definitions of the variables considered in Xcel Energy’s econometric models.

### **Jurisdiction Abbreviations**

|          |                       |
|----------|-----------------------|
| M or MN  | State of Minnesota    |
| N or ND  | State of North Dakota |
| S or SD  | State of South Dakota |
| W or WI  | State of Wisconsin    |
| Mi or MI | State of Michigan     |

### **Monthly MWh Sales Series**

|                               |                                                          |
|-------------------------------|----------------------------------------------------------|
| SLS(Juris)RX<br>jurisdiction  | Residential without space heating for given jurisdiction |
| SLS(Juris)RH<br>jurisdiction  | Residential with space heating for given jurisdiction    |
| SLS(Juris)SCI<br>jurisdiction | Small commercial and industrial for given jurisdiction   |
| SLS(Juris)LCI<br>jurisdiction | Large commercial and industrial for given jurisdiction   |

### **Monthly Customer Series**

|                             |                                                          |
|-----------------------------|----------------------------------------------------------|
| NRX(Juris)<br>jurisdiction  | Residential without space heating for given jurisdiction |
| NRH(Juris)                  | Residential with space heating for given jurisdiction    |
| NSCI(Juris)<br>jurisdiction | Small commercial and industrial for given jurisdiction   |
| NLCI(Juris)<br>jurisdiction | Large commercial and industrial for given jurisdiction   |

### **Monthly Economic and Demographic Series**

|                                     |                                                             |
|-------------------------------------|-------------------------------------------------------------|
| (Juris)HH                           | Number of Households in given jurisdiction                  |
| GMP(MSA)                            | Gross Metro Product for given metropolitan statistical area |
| EEA_(Juris)                         | Total non-farm employment in given jurisdiction             |
| EM_(Juris)<br>jurisdiction          | Total manufacturing employment in given jurisdiction        |
| EnonM_(Juris)<br>given jurisdiction | Total non-manufacturing employment in given jurisdiction    |
| YP96@(Juris)                        | Personal income in given jurisdiction                       |

### **Monthly Data Variables used in Demand Model**

|                  |                                                                             |
|------------------|-----------------------------------------------------------------------------|
| THI12(Month)Cust | Temperature Humidity Index @12:00 noon multiplied by total retail customers |
|------------------|-----------------------------------------------------------------------------|

|                 |                                                                                                                         |
|-----------------|-------------------------------------------------------------------------------------------------------------------------|
| HDDWtr          | Normal Heating Degree Days on the day of the Peak<br>Multiplied by a binary variable for December, January and February |
| WNEnergy12MoSum | 12 month rolling sum of the weather normalized net energy requirements                                                  |

### Monthly Weather Variables

|                    |                                                 |
|--------------------|-------------------------------------------------|
| R(Juris)H65(Month) | HDD base 65 for given jurisdiction and month    |
| R(Juris)T65(Month) | THI DD base 65 for given jurisdiction and month |

### Monthly Binary Variables

|     |                                            |
|-----|--------------------------------------------|
| Jan | Binary variable for the month of January   |
| Feb | Binary variable for the month of February  |
| Mar | Binary variable for the month of March     |
| Apr | Binary variable for the month of April     |
| May | Binary variable for the month of May       |
| Jun | Binary variable for the month of June      |
| Jul | Binary variable for the month of July      |
| Aug | Binary variable for the month of August    |
| Sep | Binary variable for the month of September |
| Oct | Binary variable for the month of October   |
| Nov | Binary variable for the month of November  |
| Dec | Binary variable for the month of December  |

Xcel Energy uses internal and external data to create its MWh sales and Mw peak demand forecast.

Historical MWh sales are taken from Xcel Energy's internal company records, fed by its billing system. Historical coincident net peak demand data is obtained through company records. The load management estimate is added to the net peak demand to derive the base peak demand.

Weather data (dry bulb temperature and dew points) are collected from a respected local meteorologist (Mr. Frank Watson) for the Minneapolis/St. Paul, Fargo, Sioux Falls, and Eau Claire areas. The heating degree-days and THI degree-days are calculated internally based on this weather data.

Economic and demographic data is obtained from the Bureau of Labor Statistics, U.S. Department of Commerce, and the Bureau of Economic Analysis. Typically they are accessed from Global Insight, Inc. data banks, and reflect the most recent values of those series at the time of modeling.

### **Demand-Side Management Programs**

The regression model results for the residential and commercial and industrial classes are reduced to account for the expected incremental impacts of demand-side management (“DSM”) programs. An annual forecast of the impact of new DSM programs (excluding Saver’s Switch) is developed by Xcel Energy’s DSM Regulatory Strategy and Planning Department. The impacts are converted by class from calendar month energy to billing month sales volumes. The resulting sales volumes are used to reduce the class level sales forecasts that result from the regression modeling process. Impacts from all program installations through 2006 are assumed to be imbedded in the historical data, so only new program installations are included in the DSM adjustment. The Company’s Saver’s Switch program results in short-term interruptions of service designed to reduce system capacity requirements rather than permanent reductions in energy use, so it is not considered here.

## **OVERVIEW OF PROBABILITY DISTRIBUTIONS**

Xcel Energy uses a straightforward extension of the peak demand econometric model to assess risk around the expected value of the peak demand by conducting a Monte Carlo simulation on the main drivers of the peak model (weather and native energy requirements). For the Monte Carlo energy probability distribution model, the main drivers are weather and Minnesota Gross State Product (MN GSP).

The Monte Carlo stochastic simulation of peak demand (MW) or (energy (MWh)) involves taking 10,000 random draws from the weather probability distributions as well as 10,000 draws from the 12-month sum of energy probability distribution (or MN GSP probability distribution), which, in turn, produces 10,000 forecasts of peak demand (or energy), and thus generates a probability distribution around the mean peak demand (or mean energy).

For example, if the econometric model forecasts that the mean peak demand for 2022 is 11,379 MW, then using the same econometric model, the Monte Carlo simulation method forecasts that there is a 90% probability that the 2022 peak demand will be less than 12,105 MW, or alternatively, a 10% chance that the peak will be less than 10,660 MW.

In summary, the Monte Carlo stochastic simulation method adequately captures the effect of extreme weather on monthly peak demand and month energy usage, while preserving the expected value or mean forecast of peak demand and energy.

## **DATA ADJUSTMENTS AND ASSUMPTIONS**

1. Weather Adjustments. Xcel Energy adjusts the monthly weather data to reflect billing schedules. Therefore, the monthly weather data corresponds exactly with the billing month schedule.
2. Economic Adjustments. All price data and related economic series are deflated to 2000 constant dollars.

## **ASSUMPTIONS AND SPECIAL INFORMATION**

The data used in Xcel Energy's forecasting process has already been discussed in a general way. Descriptions and citations of sources for the data sets have been mentioned within this documentation under different sections.

Xcel Energy believes that its process is a reasonable and workable one to use as a guide for its future energy and load requirements. The underlying assumptions used to prepare Xcel Energy's median forecast are as follows:

1. Demographic Assumption. Population or household projections are essential in the development of the long-range forecast. The forecasts of customers are derived from population and household projections provided by Global Insight, Inc., and reviewed by Xcel Energy staff. Xcel Energy customer growth mirrors demographic growth over the forecast period.
2. Weather Assumption. Xcel Energy assumes "normal" weather in the forecast horizon. Normal weather is defined as the average weather pattern over the 20-year period from 1987-2006. The variability of weather is an important source of uncertainty. Xcel Energy's energy forecasts are based on the assumption that the normal weather conditions will prevail in the forecast horizon. Weather-related demand uncertainties are not treated explicitly in this forecast.



3. Loss Factor Assumptions. The loss factors are important to convert the sales forecast to energy requirements. Xcel Energy uses a historical average loss factor for each legal entity, and assumes it will not change in the future.

## **FORECAST COORDINATION**

Xcel Energy reports its energy and peak demand forecasts to the Mid-Continent Area Power Pool (MAPP) as a requirement of membership. MAPP then combines the forecasts of all its member utilities. Xcel Energy also reports its forecast to the Public Service Commission of Wisconsin as part of its Strategic Energy Assessment (SEA) process. In this process, the Wisconsin portion of the total Xcel Energy system load is combined with other Wisconsin electric utilities to form a statewide Wisconsin forecast.

**May 2006 CON Filing**  
**Minnesota Residential Without Space Heating Sales Model**

| Variable           | Coefficient          | StdErr      | T-Stat | P-Value | Definition                                               |
|--------------------|----------------------|-------------|--------|---------|----------------------------------------------------------|
| CONST              | -1,294,037.940271360 | 206,228.577 | -6.275 | 0.00%   | Constant term                                            |
| NRXMN              | 1.202562070          | 0.088       | 13.663 | 0.00%   | MN Residential w/o Space Heating Customers               |
| NoBillDaysPerCycle | 21,231.613606230     | 5,938.384   | 3.575  | 0.06%   | Number of Billing Days Per Billing Cycle                 |
| RMH65JanNRXMN      | 0.000111139          | 0.000       | 8.208  | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RMH65FebNRXMN      | 0.000082788          | 0.000       | 11.593 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RMH65MarNRXMN      | 0.000066977          | 0.000       | 8.114  | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RMH65AprNRXMN      | 0.000034737          | 0.000       | 3.438  | 0.10%   | Customer Weighted Heating Degree Days - April            |
| RMH65NovNRXMN      | 0.000058311          | 0.000       | 4.202  | 0.01%   | Customer Weighted Heating Degree Days - November         |
| .RMH65DecNRXMN     | 0.000092297          | 0.000       | 5.791  | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RMT65JunNRXMN      | 0.000916285          | 0.000       | 5.827  | 0.00%   | Customer Weighted Temperature Humidity Index - June      |
| RMT65JulNRXMN      | 0.001860330          | 0.000       | 37.092 | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RMT65AugNRXMN      | 0.002038777          | 0.000       | 34.397 | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RMT65SepNRXMN      | 0.002095520          | 0.000       | 21.915 | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| RMT65OctNRXMN      | 0.002515558          | 0.000       | 6.154  | 0.00%   | Customer Weighted Temperature Humidity Index - October   |
| Aug 2005           | 151,556.113693108    | 26,614.691  | 5.694  | 0.00%   | Binary Variable - August 2005                            |
| AR(1)              | 0.489127855          | 0.145       | 3.384  | 0.12%   | Auto Correlation Correction                              |
| AR(2)              | -0.189813110         | 0.142       | -1.337 | 18.54%  | Auto Correlation Correction                              |

| Regression Statistics     |               |
|---------------------------|---------------|
| Iterations                | 25            |
| Adjusted Observations     | 91            |
| Deg. of Freedom for Error | 74            |
| R-Squared                 | 0.986         |
| Adjusted R-Squared        | 0.983         |
| Durbin-Watson Statistic   | 1.973         |
| Durbin-H Statistic        | #NA           |
| AIC                       | 19.570        |
| BIC                       | 20.039        |
| F-Statistic               | 331.087       |
| Prob (F-Statistic)        | 0.0000        |
| Log-Likelihood            | -991.52       |
| Model Sum of Squares      | 1414309439394 |
| Sum of Squared Errors     | 19756676514   |
| Mean Squared Error        | 266982115.05  |
| Std. Error of Regression  | 16339.59      |
| Mean Abs. Dev. (MAD)      | 11080.27      |
| Mean Abs. % Err. (MAPE)   | 1.76%         |
| Ljung-Box Statistic       | 16.31         |
| Prob (Ljung-Box)          | 0.8766        |

## 2007 IRP

### Minnesota Residential Without Space Heating Sales Model

| Variable         | Coefficient        | StdErr      | T-Stat | P-Value  | Definition                                                                       |
|------------------|--------------------|-------------|--------|----------|----------------------------------------------------------------------------------|
| CONST            | -989,074.109221318 | 119,601.064 | -8.270 | 0.00%    | Constant term                                                                    |
| NRXMN            | 1.116257758        | 0.070       | 15.993 | 0.00%    | MN Residential w/o Space Heating Customers                                       |
| BillDays_Cellnet | 15,562.162703415   | 2,792.007   | 5.574  | 0.00%    | Number of Billing Days Per Billing Cycle for AMR Customers                       |
| MNTotRes_RAP     | -1.503.672448049   | 608.986     | -2.469 | 1.53%    | Real Average Price - MN Total Residential Class                                  |
| RMH65JanNRXMN    | 0.000130387        | 0.000       | 16.973 | 0.00%    | Customer Weighted Heating Degree Days - January                                  |
| RMH65FebNRXMN    | 0.000088543        | 0.000       | 16.355 | 0.00%    | Customer Weighted Heating Degree Days - February                                 |
| RMH65MarNRXMN    | 0.000080971        | 0.000       | 12.790 | 0.00%    | Customer Weighted Heating Degree Days - March                                    |
| RMH65AprNRXMN    | 0.000039444        | 0.000       | 3.891  | 0.02%    | Customer Weighted Heating Degree Days - April                                    |
| RMH65OctNRXMN    | 0.000087823        | 0.000       | 3.088  | 0.26%    | Customer Weighted Heating Degree Days - October                                  |
| RMH65NovNRXMN    | 0.000072324        | 0.000       | 6.122  | 0.00%    | Customer Weighted Heating Degree Days - November                                 |
| RMH65DecNRXMN    | 0.000118707        | 0.000       | 13.382 | 0.00%    | Customer Weighted Heating Degree Days - December                                 |
| RMT65MayNRXMN    | 0.001448317        | 0.001       | 2.043  | 4.38%    | Customer Weighted Temperature Humidity Index - May                               |
| RMT65JunNRXMN    | 0.001977082        | 0.000       | 15.755 | 0.00%    | Customer Weighted Temperature Humidity Index - June                              |
| RMT65JulNRXMN    | 0.002076153        | 0.000       | 47.779 | 0.00%    | Customer Weighted Temperature Humidity Index - July                              |
| RMT65AugNRXMN    | 0.002169814        | 0.000       | 58.644 | 0.00%    | Customer Weighted Temperature Humidity Index - August                            |
| RMT65SepNRXMN    | 0.002307210        | 0.000       | 31.518 | 0.00%    | Customer Weighted Temperature Humidity Index - September                         |
| RMT65OctNRXMN    | 0.001971333        | 0.000       | 5.496  | 0.00%    | Customer Weighted Temperature Humidity Index - October                           |
| CRS              | -17,024.907692464  | 4,593.171   | -3.707 | 0.04%    | Binary variable for the reclassification impacts after billing system conversion |
| Feb 2005         | -42,924.380510178  | 15,328.002  | -2.800 | 0.62%    | Binary Variable - February 2005                                                  |
| Dec 2006         | -54,578.091703874  | 15,123.738  | -3.609 | 0.000495 | Binary Variable - December 2006                                                  |

#### Regression Statistics

|                           |               |
|---------------------------|---------------|
| Iterations                | 1             |
| Adjusted Observations     | 116           |
| Deg. of Freedom for Error | 96            |
| R-Squared                 | 0.990         |
| Adjusted R-Squared        | 0.989         |
| Durbin-Watson Statistic   | 2.025         |
| Durbin-H Statistic        | #NA           |
| AIC                       | 19.268        |
| BIC                       | 19.743        |
| F-Statistic               | 526.192       |
| Prob (F-Statistic)        | 0.0000        |
| Log-Likelihood            | -1262.15      |
| Model Sum of Squares      | 1997116566003 |
| Sum of Squared Errors     | 19176816713   |
| Mean Squared Error        | 199758507.43  |
| Std. Error of Regression  | 14133.59      |
| Mean Abs. Dev. (MAD)      | 10084.78      |
| Mean Abs. % Err. (MAPE)   | 1.56%         |
| Ljung-Box Statistic       | 31.22         |
| Prob (Ljung-Box)          | 0.1475        |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |               |
|----------|---------------|
| INCLUDED | MNTotRes_RAP  |
|          | RMH65OctNRXMN |
|          | RMT65MayNRXMN |
|          | CRS           |
|          | Feb 2005      |
|          | Dec 2006      |
| EXCLUDED | Aug 2005      |
|          | AR(1)         |
|          | AR(2)         |

**May 2006 CON Filing**  
**Minnesota Residential Space Heating Sales Model**

| Variable      | Coefficient      | StdErr    | T-Stat | P-Value | Definition                                               |
|---------------|------------------|-----------|--------|---------|----------------------------------------------------------|
| billingdays   | 614.433196652    | 17.924    | 34.279 | 0.00%   | Number of Billing Days Per Billing Month                 |
| RMH65JanNRHMN | 0.000858943      | 0.000     | 47.923 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RMH65FebNRHMN | 0.000821126      | 0.000     | 42.827 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RMH65MarNRHMN | 0.000783238      | 0.000     | 34.816 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RMH65AprNRHMN | 0.000692770      | 0.000     | 19.633 | 0.00%   | Customer Weighted Heating Degree Days - April            |
| RMH65MayNRHMN | 0.000448309      | 0.000     | 6.380  | 0.00%   | Customer Weighted Heating Degree Days - May              |
| RMH65OctNRHMN | 0.000210629      | 0.000     | 2.653  | 0.97%   | Customer Weighted Heating Degree Days - October          |
| RMH65NovNRHMN | 0.000542052      | 0.000     | 13.052 | 0.00%   | Customer Weighted Heating Degree Days - November         |
| RMH65DecNRHMN | 0.000742227      | 0.000     | 31.905 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RMT65JunNRHMN | 0.000334603      | 0.000     | 0.951  | 34.46%  | Customer Weighted Temperature Humidity Index - June      |
| RMT65JulNRHMN | 0.000820737      | 0.000     | 5.693  | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RMT65AugNRHMN | 0.000925559      | 0.000     | 6.060  | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RMT65SepNRHMN | 0.000559560      | 0.000     | 2.211  | 2.99%   | Customer Weighted Temperature Humidity Index - September |
| Nov 2005      | -3,557.411793516 | 1,320.551 | -2.694 | 0.86%   | Binary Variable - November 2005                          |
| AR(1)         | 0.381822159      | 0.117     | 3.264  | 0.16%   | Auto Correlation Correction                              |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 13          |
| Adjusted Observations     | 95          |
| Deg. of Freedom for Error | 80          |
| R-Squared                 | 0.991       |
| Adjusted R-Squared        | 0.990       |
| Durbin-Watson Statistic   | 1.921       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 14.381      |
| BIC                       | 14.784      |
| F-Statistic               | 609.259     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -794.44     |
| Model Sum of Squares      | 13930326351 |
| Sum of Squared Errors     | 121943387   |
| Mean Squared Error        | 1524292.34  |
| Std. Error of Regression  | 1234.62     |
| Mean Abs. Dev. (MAD)      | 831.24      |
| Mean Abs. % Err. (MAPE)   | 2.70%       |
| Ljung-Box Statistic       | 16.88       |
| Prob (Ljung-Box)          | 0.8539      |

## 2007 IRP

### Minnesota Residential Space Heating Sales Model

| Variable         | Coefficient   | StdErr | T-Stat | P-Value | Definition                                                 |
|------------------|---------------|--------|--------|---------|------------------------------------------------------------|
| BillDays_Cellnet | 509.548670376 | 15.161 | 33.610 | 0.00%   | Number of Billing Days Per Billing Cycle for AMR Customers |
| RMH65JanNRHMN    | 0.000912849   | 0.000  | 66.519 | 0.00%   | Customer Weighted Heating Degree Days - January            |
| RMH65FebNRHMN    | 0.000865021   | 0.000  | 61.532 | 0.00%   | Customer Weighted Heating Degree Days - February           |
| RMH65MarNRHMN    | 0.000858361   | 0.000  | 52.557 | 0.00%   | Customer Weighted Heating Degree Days - March              |
| RMH65AprNRHMN    | 0.000803470   | 0.000  | 29.788 | 0.00%   | Customer Weighted Heating Degree Days - April              |
| RMH65MayNRHMN    | 0.000769392   | 0.000  | 13.567 | 0.00%   | Customer Weighted Heating Degree Days - May                |
| RMH65JunNRHMN    | 0.000561216   | 0.000  | 3.475  | 0.08%   | Customer Weighted Heating Degree Days - June               |
| RMH65OctNRMN     | 0.000617600   | 0.000  | 9.570  | 0.00%   | Customer Weighted Heating Degree Days - October            |
| RMH65NovNRMN     | 0.000714044   | 0.000  | 23.136 | 0.00%   | Customer Weighted Heating Degree Days - November           |
| RMH65DecNRMN     | 0.000842096   | 0.000  | 45.832 | 0.00%   | Customer Weighted Heating Degree Days - December           |
| RMT65JunNRHMN    | 0.001678588   | 0.000  | 4.924  | 0.00%   | Customer Weighted Temperature Humidity Index - June        |
| RMT65JulNRHMN    | 0.001568392   | 0.000  | 12.915 | 0.00%   | Customer Weighted Temperature Humidity Index - July        |
| RMT65AugNRHMN    | 0.001563015   | 0.000  | 15.147 | 0.00%   | Customer Weighted Temperature Humidity Index - August      |
| RMT65SepNRHMN    | 0.001665799   | 0.000  | 8.342  | 0.00%   | Customer Weighted Temperature Humidity Index - September   |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 116         |
| Deg. of Freedom for Error | 102         |
| R-Squared                 | 0.995       |
| Adjusted R-Squared        | 0.995       |
| Durbin-Watson Statistic   | 1.808       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 13.659      |
| BIC                       | 13.991      |
| F-Statistic               | 1583.260    |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -942.80     |
| Model Sum of Squares      | 16926449490 |
| Sum of Squared Errors     | 77890710    |
| Mean Squared Error        | 763634.41   |
| Std. Error of Regression  | 873.86      |
| Mean Abs. Dev. (MAD)      | 595.48      |
| Mean Abs. % Err. (MAPE)   | 1.94%       |
| Ljung-Box Statistic       | 25.22       |
| Prob (Ljung-Box)          | 0.3939      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |                   |
|----------|-------------------|
| INCLUDED | RMH65JunNRHMN     |
| EXCLUDED | Nov 2005<br>AR(1) |

# May 2006 CON Filing

## Minnesota Small Commercial and Industrial Sales Model

| Variable       | Coefficient        | StdErr      | T-Stat  | P-Value | Definition                                                                              |
|----------------|--------------------|-------------|---------|---------|-----------------------------------------------------------------------------------------|
| CONST          | 306,337.360317374  | 183,881.714 | 1.666   | 9.97%   | Constant term                                                                           |
| GMP00CMpls     | 5.062552215        | 1.414       | 3.580   | 0.06%   | Gross Metropolitan Product Minneapolis - 2000 Dollars                                   |
| HDDJanFeb      | 0.000476658        | 0.000       | 3.450   | 0.09%   | Customer Weighted Heating Degree Days - Jan + Feb                                       |
| HDDMarApr      | 0.000500684        | 0.000       | 2.882   | 0.51%   | Customer Weighted Heating Degree Days - Mar + Apr                                       |
| HDDOctNovDec   | 0.000485408        | 0.000       | 2.593   | 1.14%   | Customer Weighted Heating Degree Days - Oct + Nov + Dec                                 |
| CDDAprMay      | 0.021878414        | 0.018       | 1.193   | 23.64%  | Customer Weighted Temperature Humidity Index - Apr + May                                |
| RMT65JunNSCIMN | 0.011015267        | 0.003       | 4.193   | 0.01%   | Customer Weighted Temperature Humidity Index - June                                     |
| RMT65JulNSCIMN | 0.008622487        | 0.001       | 7.453   | 0.00%   | Customer Weighted Temperature Humidity Index - July                                     |
| RMT65AugNSCIMN | 0.008523265        | 0.001       | 6.878   | 0.00%   | Customer Weighted Temperature Humidity Index - August                                   |
| RMT65SepNSCIMN | 0.013248757        | 0.002       | 6.735   | 0.00%   | Customer Weighted Temperature Humidity Index - September                                |
| RMT65OctNSCIMN | 0.018556915        | 0.008       | 2.231   | 2.85%   | Customer Weighted Temperature Humidity Index - October                                  |
| CIRclass01Pre  | -586,225.787195064 | 25,137.951  | -23.320 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Aug 2005       | 157,502.460676362  | 47,014.572  | 3.350   | 0.12%   | Binary Variable - August 2005                                                           |
| Jan 2001       | 127,963.500042543  | 47,973.569  | 2.667   | 0.93%   | Binary Variable - January 2001                                                          |
| AR(1)          | 0.387657805        | 0.108       | 3.582   | 0.06%   | Auto Correlation Correction                                                             |

| Regression Statistics     |                |
|---------------------------|----------------|
| Iterations                | 31             |
| Adjusted Observations     | 95             |
| Deg. of Freedom for Error | 80             |
| R-Squared                 | 0.983          |
| Adjusted R-Squared        | 0.980          |
| Durbin-Watson Statistic   | 1.910          |
| Durbin-H Statistic        | #NA            |
| AIC                       | 21.684         |
| BIC                       | 22.087         |
| F-Statistic               | 330.492        |
| Prob (F-Statistic)        | 0.0000         |
| Log-Likelihood            | -1137.68       |
| Model Sum of Squares      | 10470395574107 |
| Sum of Squared Errors     | 181035415097   |
| Mean Squared Error        | 2262942688.72  |
| Std. Error of Regression  | 47570.40       |
| Mean Abs. Dev. (MAD)      | 29533.17       |
| Mean Abs. % Err. (MAPE)   | 3.77%          |
| Ljung-Box Statistic       | 21.26          |
| Prob (Ljung-Box)          | 0.6231         |

## 2007 IRP

### Minnesota Small Commercial and Industrial Sales Model

| Variable       | Coefficient        | StdErr     | T-Stat  | P-Value | Definition                                                                              |
|----------------|--------------------|------------|---------|---------|-----------------------------------------------------------------------------------------|
| NSCIMN         | 8.673728810        | 0.147      | 59.161  | 0.00%   | Minnesota Small C&I Customers                                                           |
| JanFebHDD      | 0.000519426        | 0.000      | 4.230   | 0.01%   | Customer Weighted Heating Degree Days - Jan + Feb                                       |
| MarAprHDD      | 0.000473546        | 0.000      | 2.970   | 0.37%   | Customer Weighted Heating Degree Days - Mar + Apr                                       |
| NovDecHDD      | 0.000400782        | 0.000      | 2.250   | 2.66%   | Customer Weighted Heating Degree Days - Nov + Dec                                       |
| RMH65JunNSCIMN | 0.014428821        | 0.003      | 4.647   | 0.00%   | Customer Weighted Temperature Humidity Index - June                                     |
| RMT65JulNSCIMN | 0.009694251        | 0.001      | 8.279   | 0.00%   | Customer Weighted Temperature Humidity Index - July                                     |
| RMT65AugNSCIMN | 0.009549988        | 0.001      | 9.447   | 0.00%   | Customer Weighted Temperature Humidity Index - August                                   |
| RMT65SepNSCIMN | 0.013672339        | 0.002      | 6.954   | 0.00%   | Customer Weighted Temperature Humidity Index - September                                |
| RMT65OctNSCIMN | 0.027972061        | 0.009      | 3.268   | 0.15%   | Customer Weighted Temperature Humidity Index - October                                  |
| ClReclass01Pre | -523,089.578569675 | 15,543.836 | -33.653 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| CRS            | -85,172.712737881  | 15,876.978 | -5.365  | 0.00%   | Binary variable for the reclassification impacts after billing system conversion        |
| AR(1)          | 0.226839127        | 0.105      | 2.167   | 3.26%   | Auto Correlation Correction                                                             |

#### Regression Statistics

|                           |                |
|---------------------------|----------------|
| Iterations                | 25             |
| Adjusted Observations     | 115            |
| Deg. of Freedom for Error | 103            |
| R-Squared                 | 0.977          |
| Adjusted R-Squared        | 0.974          |
| Durbin-Watson Statistic   | 2.021          |
| Durbin-H Statistic        | #NA            |
| AIC                       | 21.899         |
| BIC                       | 22.185         |
| F-Statistic               | 358.077        |
| Prob (F-Statistic)        | 0.0000         |
| Log-Likelihood            | -1398.09       |
| Model Sum of Squares      | 12614825547408 |
| Sum of Squared Errors     | 302385068829   |
| Mean Squared Error        | 2935777367.27  |
| Std. Error of Regression  | 54182.81       |
| Mean Abs. Dev. (MAD)      | 36601.15       |
| Mean Abs. % Err. (MAPE)   | 4.59%          |
| Ljung-Box Statistic       | 34.31          |
| Prob (Ljung-Box)          | 0.0793         |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |              |
|----------|--------------|
| INCLUDED | NSCIMN       |
|          | NovDecHDD    |
|          | CRS          |
| EXCLUDED | CONST        |
|          | GMP00CMpls   |
|          | HDDOctNovDec |
|          | Aug 2005     |
|          | Jan 2001     |

# May 2006 CON Filing

## Minnesota Large Commercial and Industrial Sales Model

| Variable           | Coefficient        | StdErr     | T-Stat | P-Value | Definition                                                                              |
|--------------------|--------------------|------------|--------|---------|-----------------------------------------------------------------------------------------|
| EEA_Mpls           | 234.324317795      | 72.835     | 3.217  | 0.18%   | Total Employment in Minneapolis                                                         |
| CIReclass01Pre     | 579,342.659492805  | 21,733.139 | 26.657 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan2001            | -499,863.137293981 | 50,918.253 | -9.817 | 0.00%   | Binary Variable - January 2001                                                          |
| NoBillDaysPerCycle | 11,795.234116513   | 4,148.790  | 2.843  | 0.56%   | Number of Billing Days Per Billing Month                                                |
| MA(1)              | 0.521609984        | 0.100      | 5.208  | 0.00%   | Auto Correlation Correction                                                             |
| MA(2)              | 0.346227838        | 0.099      | 3.492  | 0.08%   | Auto Correlation Correction                                                             |

| Regression Statistics     |               |
|---------------------------|---------------|
| Iterations                | 13            |
| Adjusted Observations     | 96            |
| Deg. of Freedom for Error | 90            |
| R-Squared                 | 0.966         |
| Adjusted R-Squared        | 0.964         |
| Durbin-Watson Statistic   | 1.890         |
| Durbin-H Statistic        | #NA           |
| AIC                       | 21.929        |
| BIC                       | 22.089        |
| F-Statistic               | 424.131       |
| Prob (F-Statistic)        | 0.0000        |
| Log-Likelihood            | -1182.79      |
| Model Sum of Squares      | 7995136849810 |
| Sum of Squared Errors     | 282759324071  |
| Mean Squared Error        | 3141770267.46 |
| Std. Error of Regression  | 56051.50      |
| Mean Abs. Dev. (MAD)      | 42810.25      |
| Mean Abs. % Err. (MAPE)   | 4.93%         |
| Ljung-Box Statistic       | 81.30         |
| Prob (Ljung-Box)          | 0.0000        |



## 2007 IRP

### Minnesota Large Commercial and Industrial Sales Model

| Variable       | Coefficient       | StdErr     | T-Stat  | P-Value | Definition                                                                              |
|----------------|-------------------|------------|---------|---------|-----------------------------------------------------------------------------------------|
| EEA_MN         | 317.340499611     | 8.520      | 37.248  | 0.00%   | Total Employment in Minnesota                                                           |
| MNLCI_RAP      | -3,724.796152535  | 319.922    | -11.643 | 0.00%   | Real Average Price for MN Large C&I Customers                                           |
| CIReclass01Pre | 549,051.224487494 | 28,219.411 | 19.457  | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| CRS            | 49,306.417819326  | 21,205.856 | 2.325   | 2.22%   | Binary variable for the reclassification impacts after billing system conversion        |
| AR(1)          | 0.323310456       | 0.100      | 3.234   | 0.17%   | Auto Correlation Correction                                                             |
| SAR(1)         | 0.569944923       | 0.083      | 6.882   | 0.00%   | Auto Correlation Correction                                                             |

| Regression Statistics     |               |
|---------------------------|---------------|
| Iterations                | 7             |
| Adjusted Observations     | 103           |
| Deg. of Freedom for Error | 97            |
| R-Squared                 | 0.963         |
| Adjusted R-Squared        | 0.962         |
| Durbin-Watson Statistic   | 2.060         |
| Durbin-H Statistic        | #NA           |
| AIC                       | 21.726        |
| BIC                       | 21.879        |
| F-Statistic               | 425.881       |
| Prob (F-Statistic)        | 0.0000        |
| Log-Likelihood            | -1246.81      |
| Model Sum of Squares      | 6581349382046 |
| Sum of Squared Errors     | 249831232248  |
| Mean Squared Error        | 2575579713.90 |
| Std. Error of Regression  | 50750.17      |
| Mean Abs. Dev. (MAD)      | 38493.18      |
| Mean Abs. % Err. (MAPE)   | 4.75%         |
| Ljung-Box Statistic       | 34.99         |
| Prob (Ljung-Box)          | 0.0686        |

| Difference between CON Filing Model and IRP Forecast Model: |                                                             |
|-------------------------------------------------------------|-------------------------------------------------------------|
| INCLUDED                                                    | EEA_MN<br>MNLCI_RAP<br>CRS<br>AR(1)<br>SAR(1)               |
| EXCLUDED                                                    | EEA_Mpls<br>Jan2001<br>NoBillDaysPerCycle<br>MA(1)<br>MA(2) |

**May 2006 CON Filing**  
**North Dakota Residential Without Space Heating Sales Model**

| Variable      | Coefficient      | StdErr    | T-Stat | P-Value | Definition                                                 |
|---------------|------------------|-----------|--------|---------|------------------------------------------------------------|
| HH_Fargo      | 445.562406207    | 6.220     | 71.639 | 0.00%   | Households - Fargo                                         |
| RFH65JanNRXND | 0.000185527      | 0.000     | 25.963 | 0.00%   | Customer Weighted Heating Degree Days - January            |
| RFH65FebNRXND | 0.000115087      | 0.000     | 14.342 | 0.00%   | Customer Weighted Heating Degree Days - February           |
| RFH65MarNRXND | 0.000100325      | 0.000     | 11.146 | 0.00%   | Customer Weighted Heating Degree Days - March              |
| RFH65AprNRXND | 0.000073761      | 0.000     | 5.855  | 0.00%   | Customer Weighted Heating Degree Days - April              |
| HDDOctNov     | 0.000034982      | 0.000     | 2.177  | 3.26%   | Customer Weighted Heating Degree Days - Oct and Nov        |
| RFH65DecNRXND | 0.000163478      | 0.000     | 17.736 | 0.00%   | Customer Weighted Heating Degree Days - December           |
| RFT65MayNRXND | 0.004357615      | 0.003     | 1.571  | 12.03%  | Customer Weighted Temperature Humidity Index - May         |
| RFT65JunNRXND | 0.001329765      | 0.000     | 4.743  | 0.00%   | Customer Weighted Temperature Humidity Index - June        |
| RFT65JulNRXND | 0.001806862      | 0.000     | 19.395 | 0.00%   | Customer Weighted Temperature Humidity Index - July        |
| RFT65AugNRXND | 0.001938824      | 0.000     | 21.016 | 0.00%   | Customer Weighted Temperature Humidity Index - August      |
| THISepOct     | 0.002306987      | 0.000     | 14.320 | 0.00%   | Customer Weighted Temperature Humidity Index - Sep and Oct |
| Aug 2005      | 10,516.916059936 | 1,249.469 | 8.417  | 0.00%   | Binary Variable - August 2005                              |
| AR(1)         | 0.398802013      | 0.121     | 3.290  | 0.15%   | Auto Correlation Correction                                |
| AR(2)         | 0.068930946      | 0.128     | 0.540  | 59.07%  | Auto Correlation Correction                                |

| Regression Statistics     |            |
|---------------------------|------------|
| Iterations                | 17         |
| Adjusted Observations     | 94         |
| Deg. of Freedom for Error | 79         |
| R-Squared                 | 0.959      |
| Adjusted R-Squared        | 0.952      |
| Durbin-Watson Statistic   | 2.052      |
| Durbin-H Statistic        | #NA        |
| AIC                       | 14.436     |
| BIC                       | 14.842     |
| F-Statistic               | 124.771    |
| Prob (F-Statistic)        | 0.0000     |
| Log-Likelihood            | -796.88    |
| Model Sum of Squares      | 3010637715 |
| Sum of Squared Errors     | 127080940  |
| Mean Squared Error        | 1608619.49 |
| Std. Error of Regression  | 1268.31    |
| Mean Abs. Dev. (MAD)      | 941.86     |
| Mean Abs. % Err. (MAPE)   | 2.49%      |
| Ljung-Box Statistic       | 33.26      |
| Prob (Ljung-Box)          | 0.0987     |

## 2007 IRP

### North Dakota Residential Without Space Heating Sales Model

| Variable      | Coefficient   | StdErr | T-Stat | P-Value | Definition                                                 |
|---------------|---------------|--------|--------|---------|------------------------------------------------------------|
| HH_FGO        | 466.020027202 | 18.745 | 24.862 | 0.00%   | Households - Fargo                                         |
| NDTotRes_RAP  | -67.412104531 | 36.654 | -1.839 | 6.88%   | Real Average Price - ND Total Residential Class            |
| RFH65JanNRXND | 0.000183838   | 0.000  | 29.637 | 0.00%   | Customer Weighted Heating Degree Days - January            |
| RFH65FebNRXND | 0.000108336   | 0.000  | 15.637 | 0.00%   | Customer Weighted Heating Degree Days - February           |
| RFH65MarNRXND | 0.000105539   | 0.000  | 13.493 | 0.00%   | Customer Weighted Heating Degree Days - March              |
| RFH65AprNRXND | 0.000063445   | 0.000  | 5.171  | 0.00%   | Customer Weighted Heating Degree Days - April              |
| HDDOctNov     | 0.000035092   | 0.000  | 2.590  | 1.10%   | Customer Weighted Heating Degree Days - Oct and Nov        |
| RFH65DecNRXND | 0.000158699   | 0.000  | 19.352 | 0.00%   | Customer Weighted Heating Degree Days - December           |
| RFT65JunNRXND | 0.001760103   | 0.000  | 5.816  | 0.00%   | Customer Weighted Temperature Humidity Index - June        |
| RFT65JulNRXND | 0.001887498   | 0.000  | 21.361 | 0.00%   | Customer Weighted Temperature Humidity Index - July        |
| RFT65AugNRXND | 0.002161122   | 0.000  | 28.313 | 0.00%   | Customer Weighted Temperature Humidity Index - August      |
| THISepOct     | 0.002331784   | 0.000  | 14.902 | 0.00%   | Customer Weighted Temperature Humidity Index - Sep and Oct |

| Regression Statistics     |            |
|---------------------------|------------|
| Iterations                | 1          |
| Adjusted Observations     | 116        |
| Deg. of Freedom for Error | 104        |
| R-Squared                 | 0.957      |
| Adjusted R-Squared        | 0.953      |
| Durbin-Watson Statistic   | 1.960      |
| Durbin-H Statistic        | #NA        |
| AIC                       | 14.505     |
| BIC                       | 14.789     |
| F-Statistic               | 194.405    |
| Prob (F-Statistic)        | 0.0000     |
| Log-Likelihood            | -993.87    |
| Model Sum of Squares      | 4214427482 |
| Sum of Squared Errors     | 187880848  |
| Mean Squared Error        | 1806546.62 |
| Std. Error of Regression  | 1344.08    |
| Mean Abs. Dev. (MAD)      | 1013.43    |
| Mean Abs. % Err. (MAPE)   | 2.61%      |
| Ljung-Box Statistic       | 59.99      |
| Prob (Ljung-Box)          | 0.0001     |

| Difference between CON Filing Model and IRP Forecast Model: |               |
|-------------------------------------------------------------|---------------|
| INCLUDED                                                    | NDTotRes_RAP  |
| EXCLUDED                                                    | RFT65MayNRXND |
|                                                             | Aug 2005      |
|                                                             | AR(1)         |
|                                                             | AR(2)         |

**May 2006 CON Filing**  
**North Dakota Residential Space Heating Sales Model**

| Variable      | Coefficient     | StdErr    | T-Stat | P-Value | Definition                                               |
|---------------|-----------------|-----------|--------|---------|----------------------------------------------------------|
| NRHND         | 0.630746858     | 0.029     | 21.410 | 0.00%   | North Dakota Residential Heating Customers               |
| RFH65JanNRHND | 0.000908289     | 0.000     | 25.842 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RFH65FebNRHND | 0.000840148     | 0.000     | 21.577 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RFH65MarNRHND | 0.000685027     | 0.000     | 17.509 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RFH65NovNRHND | 0.000608585     | 0.000     | 12.365 | 0.00%   | Customer Weighted Heating Degree Days - November         |
| RFH65DecNRHND | 0.000852980     | 0.000     | 19.930 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| HDDAprOct     | 0.000431265     | 0.000     | 11.522 | 0.00%   | Customer Weighted Heating Degree Days - Apr and Oct      |
| RFT65JulNRHND | 0.001410071     | 0.000     | 4.968  | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RFT65AugNRHND | 0.001470864     | 0.000     | 4.305  | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RFT65SepNRHND | 0.002047630     | 0.000     | 4.338  | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| Aug 2005      | 2,042.585861346 | 1,027.496 | 1.988  | 5.03%   | Binary Variable - August 2005                            |
| AR(1)         | 1.061472142     | 0.108     | 9.833  | 0.00%   | Auto Correlation Correction                              |
| AR(2)         | -0.502368136    | 0.127     | -3.956 | 0.02%   | Auto Correlation Correction                              |

| Regression Statistics     |            |
|---------------------------|------------|
| Iterations                | 99         |
| Adjusted Observations     | 94         |
| Deg. of Freedom for Error | 81         |
| R-Squared                 | 0.979      |
| Adjusted R-Squared        | 0.976      |
| Durbin-Watson Statistic   | 1.894      |
| Durbin-H Statistic        | #NA        |
| AIC                       | 14.700     |
| BIC                       | 15.052     |
| F-Statistic               | 289.358    |
| Prob (F-Statistic)        | 0.0000     |
| Log-Likelihood            | -811.30    |
| Model Sum of Squares      | 8020666178 |
| Sum of Squared Errors     | 172709818  |
| Mean Squared Error        | 2132219.97 |
| Std. Error of Regression  | 1460.21    |
| Mean Abs. Dev. (MAD)      | 1075.90    |
| Mean Abs. % Err. (MAPE)   | 5.99%      |
| Ljung-Box Statistic       | 70.50      |
| Prob (Ljung-Box)          | 0.0000     |

## 2007 IRP

### North Dakota Residential Space Heating Sales Model

| Variable      | Coefficient   | StdErr | T-Stat | P-Value | Definition                                               |
|---------------|---------------|--------|--------|---------|----------------------------------------------------------|
| NRHND         | 0.695405158   | 0.074  | 9.394  | 0.00%   | North Dakota Residential Heating Customers               |
| NDTotRes_RAP  | -83.187626971 | 31.844 | -2.612 | 1.04%   | Real Average Price - ND Total Residential Class          |
| RFH65JanNRHND | 0.000878110   | 0.000  | 51.945 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RFH65FebNRHND | 0.000846004   | 0.000  | 44.885 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RFH65MarNRHND | 0.000780543   | 0.000  | 37.322 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RFH65APRNRHND | 0.000711154   | 0.000  | 21.770 | 0.00%   | Customer Weighted Heating Degree Days - April            |
| RFH65MayNRHND | 0.000582440   | 0.000  | 9.690  | 0.00%   | Customer Weighted Heating Degree Days - May              |
| RFH65JunNRHND | 0.000464686   | 0.000  | 3.030  | 0.31%   | Customer Weighted Heating Degree Days - June             |
| RFH65OctNRHND | 0.000399076   | 0.000  | 6.372  | 0.00%   | Customer Weighted Heating Degree Days - October          |
| RFH65NovNRHND | 0.000610550   | 0.000  | 18.065 | 0.00%   | Customer Weighted Heating Degree Days - November         |
| RFH65DecNRHND | 0.000833603   | 0.000  | 39.353 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RFT65JunNRHND | 0.001672100   | 0.001  | 2.448  | 1.61%   | Customer Weighted Temperature Humidity Index - June      |
| RFT65JulNRHND | 0.001676032   | 0.000  | 8.036  | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RFT65AugNRHND | 0.001643697   | 0.000  | 9.158  | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RFT65SepNRHND | 0.002012951   | 0.000  | 5.885  | 0.00%   | Customer Weighted Temperature Humidity Index - September |

| Regression Statistics     |            |
|---------------------------|------------|
| Iterations                | 1          |
| Adjusted Observations     | 116        |
| Deg. of Freedom for Error | 101        |
| R-Squared                 | 0.994      |
| Adjusted R-Squared        | 0.994      |
| Durbin-Watson Statistic   | 1.823      |
| Durbin-H Statistic        | #NA        |
| AIC                       | 13.330     |
| BIC                       | 13.686     |
| F-Statistic               | 1213.400   |
| Prob (F-Statistic)        | 0.0000     |
| Log-Likelihood            | -922.74    |
| Model Sum of Squares      | 9933173137 |
| Sum of Squared Errors     | 55120613   |
| Mean Squared Error        | 545748.65  |
| Std. Error of Regression  | 738.75     |
| Mean Abs. Dev. (MAD)      | 519.77     |
| Mean Abs. % Err. (MAPE)   | 2.74%      |
| Ljung-Box Statistic       | 19.91      |
| Prob (Ljung-Box)          | 0.7020     |

| Difference between CON Filing Model and IRP Forecast Model: |                                                                                                   |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| INCLUDED                                                    | NDTotRes_RAP<br>RFH65AprNRHND<br>RFH65MayNRHND<br>RFH65JunNRHND<br>RFH65OctNRHND<br>RFT65JunNRHND |
| EXCLUDED                                                    | Aug 2005<br>HDDAprOct<br>AR(1)<br>AR(2)                                                           |

# May 2006 CON Filing

## North Dakota Small Commercial and Industrial Sales Model

| Variable       | Coefficient       | StdErr    | T-Stat  | P-Value | Definition                                                                              |
|----------------|-------------------|-----------|---------|---------|-----------------------------------------------------------------------------------------|
| EEA_Fargo      | 713.906570116     | 12.696    | 56.233  | 0.00%   | Total Employment - Fargo                                                                |
| RFH65JanNSCIND | 0.000790976       | 0.000     | 6.921   | 0.00%   | Customer Weighted Heating Degree Days - January                                         |
| RFH65FebNSCIND | 0.000413547       | 0.000     | 3.269   | 0.16%   | Customer Weighted Heating Degree Days - February                                        |
| HDDMarApr      | 0.000335359       | 0.000     | 2.233   | 2.83%   | Customer Weighted Heating Degree Days - Mar + Apr                                       |
| HDDNovDec      | 0.000516546       | 0.000     | 3.383   | 0.11%   | Customer Weighted Heating Degree Days - Nov + Dec                                       |
| RFT65JunNSCIND | 0.008144823       | 0.005     | 1.566   | 12.12%  | Customer Weighted Temperature Humidity Index - June                                     |
| RFT65JulNSCIND | 0.004151632       | 0.002     | 2.524   | 1.35%   | Customer Weighted Temperature Humidity Index - July                                     |
| RFT65AugNSCIND | 0.004509680       | 0.002     | 2.776   | 0.68%   | Customer Weighted Temperature Humidity Index - August                                   |
| RFT65SepNSCIND | 0.006087145       | 0.002     | 2.636   | 1.00%   | Customer Weighted Temperature Humidity Index - September                                |
| Aug2005        | 19,165.282163474  | 4,378.127 | 4.378   | 0.00%   | Binary Variable - August 2005                                                           |
| CIReclass01Pre | -42,203.684083995 | 1,439.390 | -29.321 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| MA(1)          | 0.499331125       | 0.123     | 4.051   | 0.01%   | Auto Correlation Correction                                                             |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 48          |
| Adjusted Observations     | 95          |
| Deg. of Freedom for Error | 83          |
| R-Squared                 | 0.967       |
| Adjusted R-Squared        | 0.962       |
| Durbin-Watson Statistic   | 2.057       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 17.037      |
| BIC                       | 17.359      |
| F-Statistic               | 199.772     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -922.24     |
| Model Sum of Squares      | 53410290619 |
| Sum of Squared Errors     | 1849218177  |
| Mean Squared Error        | 22279737.07 |
| Std. Error of Regression  | 4720.14     |
| Mean Abs. Dev. (MAD)      | 2974.16     |
| Mean Abs. % Err. (MAPE)   | 4.84%       |
| Ljung-Box Statistic       | 16.76       |
| Prob (Ljung-Box)          | 0.8587      |

## 2007 IRP

### North Dakota Small Commercial and Industrial Sales Model

| Variable       | Coefficient       | StdErr    | T-Stat  | P-Value | Definition                                                                              |
|----------------|-------------------|-----------|---------|---------|-----------------------------------------------------------------------------------------|
| EEA_Fargo      | 747.622736566     | 25.175    | 29.697  | 0.00%   | Total Employment - Fargo                                                                |
| RFH65JanNSCIND | 0.000962456       | 0.000     | 9.472   | 0.00%   | Customer Weighted Heating Degree Days - January                                         |
| RFH65FebNSCIND | 0.000520124       | 0.000     | 4.495   | 0.00%   | Customer Weighted Heating Degree Days - February                                        |
| HDDMarApr      | 0.000296892       | 0.000     | 2.328   | 2.19%   | Customer Weighted Heating Degree Days - Mar + Apr                                       |
| HDDNovDec      | 0.000435495       | 0.000     | 3.182   | 0.20%   | Customer Weighted Heating Degree Days - Nov + Dec                                       |
| RFT65JunNSCIND | 0.009795263       | 0.005     | 1.944   | 5.48%   | Customer Weighted Temperature Humidity Index - June                                     |
| RFT65JulNSCIND | 0.004297795       | 0.001     | 2.944   | 0.40%   | Customer Weighted Temperature Humidity Index - July                                     |
| RFT65AugNSCIND | 0.007199494       | 0.001     | 5.735   | 0.00%   | Customer Weighted Temperature Humidity Index - August                                   |
| RFT65SepNSCIND | 0.008581532       | 0.003     | 3.343   | 0.12%   | Customer Weighted Temperature Humidity Index - September                                |
| NDSCI_RAP      | -158.000727117    | 88.881    | -1.778  | 7.85%   | Real Average Price - ND Small C&I Class                                                 |
| CIRclass01Pre  | -40,492.165404695 | 1,420.242 | -28.511 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Feb 2005       | -19,315.094092543 | 5,259.678 | -3.672  | 0.04%   | Binary Variable - February 2005                                                         |
| Dec 2005       | -22,181.965260858 | 5,349.796 | -4.146  | 0.01%   | Binary Variable - December 2005                                                         |
| Mar 2006       | 32,327.787275164  | 5,295.673 | 6.105   | 0.00%   | Binary Variable - March 2006                                                            |
| Apr 2006       | -36,703.791521306 | 5,220.663 | -7.030  | 0.00%   | Binary Variable - April 2006                                                            |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 116         |
| Deg. of Freedom for Error | 101         |
| R-Squared                 | 0.964       |
| Adjusted R-Squared        | 0.959       |
| Durbin-Watson Statistic   | 1.846       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 17.150      |
| BIC                       | 17.506      |
| F-Statistic               | 178.349     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1144.31    |
| Model Sum of Squares      | 66593921641 |
| Sum of Squared Errors     | 2514170980  |
| Mean Squared Error        | 24892781.98 |
| Std. Error of Regression  | 4989.27     |
| Mean Abs. Dev. (MAD)      | 3218.54     |
| Mean Abs. % Err. (MAPE)   | 4.68%       |
| Ljung-Box Statistic       | 26.76       |
| Prob (Ljung-Box)          | 0.3157      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |          |
|----------|----------|
| INCLUDED | Feb 2005 |
|          | Dec 2005 |
|          | Mar 2006 |
|          | Apr 2006 |
|          | Apr 2006 |
| EXCLUDED | Aug2005  |
|          | MA(1)    |

## May 2006 CON Filing

### North Dakota Large Commercial and Industrial Sales Model

| Variable        | Coefficient       | StdErr    | T-Stat | P-Value | Definition                                                                       |
|-----------------|-------------------|-----------|--------|---------|----------------------------------------------------------------------------------|
| NLCIND          | 73.539749747      | 1.482     | 49.633 | 0.00%   | North Dakota Large C&I Customers                                                 |
| EEMFGFargo      | 2,548.398752985   | 127.508   | 19.986 | 0.00%   | Manufacturing Employment - Fargo                                                 |
| CDDJunJulAugSep | 22.047017633      | 8.995     | 2.451  | 1.63%   | Temperature Humidity Index - Jul + Aug + Sep                                     |
| HDDJanFebNovDec | 1.521218266       | 0.640     | 2.377  | 1.97%   | Heating Degree Days - Jan + Feb + Nov + Dec                                      |
| Jan 2001        | -14,417.305510839 | 3,782.776 | -3.811 | 0.03%   | Binary Variable - Jan 2001                                                       |
| Feb 2001        | -11,521.137464135 | 3,738.833 | -3.081 | 0.28%   | Binary Variable - Feb 2001                                                       |
| Mar 2001        | -10,986.138711851 | 3,694.737 | -2.973 | 0.38%   | Binary Variable - Mar 2001                                                       |
| CRS             | 2,910.729976924   | 1,154.417 | 2.521  | 1.35%   | Binary variable for the reclassification impacts after billing system conversion |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 96          |
| Deg. of Freedom for Error | 88          |
| R-Squared                 | 0.969       |
| Adjusted R-Squared        | 0.966       |
| Durbin-Watson Statistic   | 2.027       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 16.474      |
| BIC                       | 16.688      |
| F-Statistic               | 341.890     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -918.99     |
| Model Sum of Squares      | 36066487656 |
| Sum of Squared Errors     | 1160407118  |
| Mean Squared Error        | 13186444.52 |
| Std. Error of Regression  | 3631.31     |
| Mean Abs. Dev. (MAD)      | 2460.75     |
| Mean Abs. % Err. (MAPE)   | 6.15%       |
| Ljung-Box Statistic       | 23.67       |
| Prob (Ljung-Box)          | 0.4808      |



## 2007 IRP

### North Dakota Large Commercial and Industrial Sales Model

| Variable        | Coefficient      | StdErr    | T-Stat | P-Value | Definition                                                                       |
|-----------------|------------------|-----------|--------|---------|----------------------------------------------------------------------------------|
| EEA_FGO         | 242.885693449    | 7.268     | 33.419 | 0.00%   | Total Employment - Fargo                                                         |
| NDLCI_RAP       | -91.855750814    | 19.187    | -4.787 | 0.00%   | Real Average Price - ND Large C&I Class                                          |
| NLCIND          | 71.258104641     | 1.611     | 44.220 | 0.00%   | North Dakota Large C&I Customers                                                 |
| THIJunJulAugSep | 28.357599909     | 7.513     | 3.774  | 0.03%   | Temperature Humidity Index - Jul + Aug + Sep                                     |
| CRS             | 2,885.824944504  | 937.806   | 3.077  | 0.27%   | Binary variable for the reclassification impacts after billing system conversion |
| Oct2006         | 9,017.763790188  | 3,741.811 | 2.410  | 1.77%   | Binary Variable - October 2006                                                   |
| Aug 2003        | -9,772.581605912 | 3,824.152 | -2.555 | 1.20%   | Binary Variable - August 2003                                                    |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 116         |
| Deg. of Freedom for Error | 109         |
| R-Squared                 | 0.963       |
| Adjusted R-Squared        | 0.961       |
| Durbin-Watson Statistic   | 1.960       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 16.474      |
| BIC                       | 16.641      |
| F-Statistic               | 405.888     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1113.11    |
| Model Sum of Squares      | 38272043402 |
| Sum of Squared Errors     | 1468263731  |
| Mean Squared Error        | 13470309.45 |
| Std. Error of Regression  | 3670.19     |
| Mean Abs. Dev. (MAD)      | 2575.78     |
| Mean Abs. % Err. (MAPE)   | 7.23%       |
| Ljung-Box Statistic       | 16.89       |
| Prob (Ljung-Box)          | 0.8532      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |                 |
|----------|-----------------|
| INCLUDED | EEA_FGO         |
|          | NDLCI_RAP       |
|          | Oct2006         |
|          | Aug 2003        |
| EXCLUDED | EEMFGFargo      |
|          | HDDJanFebNovDec |
|          | Jan2001         |
|          | Feb 2001        |
|          | Mar 2001        |

**May 2006 CON Filing**  
**South Dakota Residential Without Space Heating Sales Model**

| Variable      | Coefficient      | StdErr    | T-Stat | P-Value | Definition                                            |
|---------------|------------------|-----------|--------|---------|-------------------------------------------------------|
| CONST         | 11,551.668598590 | 3,732.369 | 3.095  | 0.27%   | Constant Term                                         |
| YPSxfls       | 3.165286068      | 0.600     | 5.272  | 0.00%   | Personal Income - Sioux Falls                         |
| RSH65JanNRXSD | 0.000152901      | 0.000     | 11.880 | 0.00%   | Customer Weighted Heating Degree Days - January       |
| RSH65FebNRXSD | 0.000082664      | 0.000     | 5.166  | 0.00%   | Customer Weighted Heating Degree Days - February      |
| RSH65MarNRXSD | 0.000098640      | 0.000     | 5.619  | 0.00%   | Customer Weighted Heating Degree Days - March         |
| HDDAprOct     | 0.000106661      | 0.000     | 5.043  | 0.00%   | Customer Weighted Heating Degree Days - Apr and Oct   |
| HDDNovDec     | 0.000150896      | 0.000     | 9.228  | 0.00%   | Customer Weighted Heating Degree Days - Nov and Dec   |
| RST65MayNRXSD | 0.002366723      | 0.001     | 1.599  | 11.38%  | Customer Weighted Temperature Humidity Index - May    |
| RST65JunNRXSD | 0.002338190      | 0.000     | 11.455 | 0.00%   | Customer Weighted Temperature Humidity Index - June   |
| RST65JulNRXSD | 0.002432197      | 0.000     | 22.906 | 0.00%   | Customer Weighted Temperature Humidity Index - July   |
| RST65AugNRXSD | 0.002546527      | 0.000     | 21.246 | 0.00%   | Customer Weighted Temperature Humidity Index - August |
| RST65SepNRXSD | 0.003087744      | 0.000     | 18.286 | 0.00%   | Customer Weighted Temperature Humidity Index - Sep    |
| RST65OctNRXSD | 0.004581054      | 0.001     | 7.067  | 0.00%   | Customer Weighted Temperature Humidity Index - Oct    |
| Aug 2005      | 16,658.012213730 | 1,310.843 | 12.708 | 0.00%   | Binary Variable - August 2005                         |
| MA(1)         | 1.105760514      | 0.101     | 10.902 | 0.00%   | Auto Correlation Correction                           |
| MA(2)         | 0.651442789      | 0.100     | 6.485  | 0.00%   | Auto Correlation Correction                           |

| Regression Statistics     |            |
|---------------------------|------------|
| Iterations                | 99         |
| Adjusted Observations     | 96         |
| Deg. of Freedom for Error | 80         |
| R-Squared                 | 0.964      |
| Adjusted R-Squared        | 0.957      |
| Durbin-Watson Statistic   | 2.128      |
| Durbin-H Statistic        | #NA        |
| AIC                       | 15.314     |
| BIC                       | 15.742     |
| F-Statistic               | 140.823    |
| Prob (F-Statistic)        | 0.0000     |
| Log-Likelihood            | -855.31    |
| Model Sum of Squares      | 8130960517 |
| Sum of Squared Errors     | 307941391  |
| Mean Squared Error        | 3849267.39 |
| Std. Error of Regression  | 1961.95    |
| Mean Abs. Dev. (MAD)      | 1384.67    |
| Mean Abs. % Err. (MAPE)   | 3.43%      |
| Ljung-Box Statistic       | 47.66      |
| Prob (Ljung-Box)          | 0.0028     |

## 2007 IRP

### South Dakota Residential Without Space Heating Sales Model

| Variable      | Coefficient      | StdErr    | T-Stat  | P-Value | Definition                                            |
|---------------|------------------|-----------|---------|---------|-------------------------------------------------------|
| YPSxfls       | 5.479475374      | 0.054     | 102.116 | 0.00%   | Personal Income - Sioux Falls                         |
| RSH65JanNRXSD | 0.000150954      | 0.000     | 20.785  | 0.00%   | Customer Weighted Heating Degree Days - January       |
| RSH65FebNRXSD | 0.000060651      | 0.000     | 7.381   | 0.00%   | Customer Weighted Heating Degree Days - February      |
| RSH65MarNRXSD | 0.000061035      | 0.000     | 6.483   | 0.00%   | Customer Weighted Heating Degree Days - March         |
| HDDNovDec     | 0.000108545      | 0.000     | 11.563  | 0.00%   | Customer Weighted Heating Degree Days - Nov and Dec   |
| RST65JunNRXSD | 0.003094611      | 0.000     | 13.065  | 0.00%   | Customer Weighted Temperature Humidity Index - June   |
| RST65JulNRXSD | 0.002557419      | 0.000     | 36.913  | 0.00%   | Customer Weighted Temperature Humidity Index - July   |
| RST65AugNRXSD | 0.002585207      | 0.000     | 44.081  | 0.00%   | Customer Weighted Temperature Humidity Index - August |
| RST65SepNRXSD | 0.002750548      | 0.000     | 24.479  | 0.00%   | Customer Weighted Temperature Humidity Index - Sep    |
| RST65OctNRXSD | 0.001977226      | 0.001     | 3.528   | 0.06%   | Customer Weighted Temperature Humidity Index - Oct    |
| Nov1999       | -4,795.944748292 | 1,727.626 | -2.776  | 0.66%   | Binary Variable - November 1999                       |
| Nov2004       | -4,320.104835182 | 1,735.822 | -2.489  | 1.45%   | Binary Variable - November 2004                       |
| Nov2005       | -5,799.747734183 | 1,737.017 | -3.339  | 0.12%   | Binary Variable - November 2005                       |
| Nov2006       | -4,878.362679057 | 1,750.715 | -2.786  | 0.64%   | Binary Variable - November 2006                       |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 116         |
| Deg. of Freedom for Error | 102         |
| R-Squared                 | 0.976       |
| Adjusted R-Squared        | 0.973       |
| Durbin-Watson Statistic   | 2.041       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 14.997      |
| BIC                       | 15.329      |
| F-Statistic               | 294.352     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1020.39    |
| Model Sum of Squares      | 11992931107 |
| Sum of Squared Errors     | 296845206   |
| Mean Squared Error        | 2910247.11  |
| Std. Error of Regression  | 1705.94     |
| Mean Abs. Dev. (MAD)      | 1249.20     |
| Mean Abs. % Err. (MAPE)   | 3.02%       |
| Ljung-Box Statistic       | 29.92       |
| Prob (Ljung-Box)          | 0.1873      |

| Difference between CON Filing Model and IRP Forecast Model: |               |
|-------------------------------------------------------------|---------------|
| INCLUDED                                                    | Nov1999       |
|                                                             | Nov2004       |
|                                                             | Nov2005       |
|                                                             | Nov2006       |
| EXCLUDED                                                    | Constant      |
|                                                             | HDDAprOct     |
|                                                             | RST65MayNRXSD |
|                                                             | Aug 2005      |
|                                                             | MA(1)         |
|                                                             | MA(2)         |

**May 2006 CON Filing**  
**South Dakota Residential Space Heating Sales Model**

| Variable      | Coefficient   | StdErr  | T-Stat | P-Value | Definition                                               |
|---------------|---------------|---------|--------|---------|----------------------------------------------------------|
| NRHSD         | 0.597987571   | 0.023   | 25.519 | 0.00%   | South Dakota Residential Heating Customers               |
| RSH65JanNRHSD | 0.000777712   | 0.000   | 36.847 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RSH65FebNRHSD | 0.000745823   | 0.000   | 30.669 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RSH65MarNRHSD | 0.000682723   | 0.000   | 24.684 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RSH65AprNRHSD | 0.000596551   | 0.000   | 14.246 | 0.00%   | Customer Weighted Heating Degree Days - April            |
| RSH65MayNRHSD | 0.000382464   | 0.000   | 4.818  | 0.00%   | Customer Weighted Heating Degree Days - May              |
| HDDOctNov     | 0.000416447   | 0.000   | 8.391  | 0.00%   | Customer Weighted Heating Degree Days - Oct and Nov      |
| RSH65DecNRHSD | 0.000680193   | 0.000   | 25.025 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RST65JunNRHSD | 0.001864935   | 0.000   | 3.840  | 0.02%   | Customer Weighted Temperature Humidity Index - June      |
| RST65JulNRHSD | 0.001630518   | 0.000   | 9.487  | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RST65AugNRHSD | 0.001731272   | 0.000   | 9.723  | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RST65SepNRHSD | 0.001910315   | 0.000   | 7.353  | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| Aug 2005      | 382.654201043 | 129.626 | 2.952  | 0.42%   | Binary - Aug 2005                                        |
| AR(1)         | 0.458128543   | 0.114   | 4.016  | 0.01%   | Auto Correlation Correction                              |

| Regression Statistics     |          |
|---------------------------|----------|
| Iterations                | 14       |
| Adjusted Observations     | 95       |
| Deg. of Freedom for Error | 81       |
| R-Squared                 | 0.980    |
| Adjusted R-Squared        | 0.976    |
| Durbin-Watson Statistic   | 1.935    |
| Durbin-H Statistic        | #NA      |
| AIC                       | 9.914    |
| BIC                       | 10.290   |
| F-Statistic               | 276.627  |
| Prob (F-Statistic)        | 0.0000   |
| Log-Likelihood            | -585.47  |
| Model Sum of Squares      | 68341240 |
| Sum of Squared Errors     | 1429371  |
| Mean Squared Error        | 17646.56 |
| Std. Error of Regression  | 132.84   |
| Mean Abs. Dev. (MAD)      | 96.72    |
| Mean Abs. % Err. (MAPE)   | 4.19%    |
| Ljung-Box Statistic       | 16.22    |
| Prob (Ljung-Box)          | 0.8800   |

## 2007 IRP

### South Dakota Residential Space Heating Sales Model

| Variable      | Coefficient    | StdErr  | T-Stat | P-Value | Definition                                               |
|---------------|----------------|---------|--------|---------|----------------------------------------------------------|
| HH_SD         | 4.775519359    | 0.171   | 28.005 | 0.00%   | Households - South Dakota                                |
| RSH65JanNRHSD | 0.000767500    | 0.000   | 45.498 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| RSH65FebNRHSD | 0.000717899    | 0.000   | 37.702 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| RSH65MarNRHSD | 0.000689098    | 0.000   | 31.686 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| RSH65AprNRHSD | 0.000581963    | 0.000   | 16.943 | 0.00%   | Customer Weighted Heating Degree Days - April            |
| RSH65MayNRHSD | 0.000300486    | 0.000   | 3.812  | 0.02%   | Customer Weighted Heating Degree Days - May              |
| RSH65OctNRHSD | 0.000246117    | 0.000   | 3.043  | 0.30%   | Customer Weighted Heating Degree Days - October          |
| RSH65NovNRHSD | 0.000459365    | 0.000   | 11.940 | 0.00%   | Customer Weighted Heating Degree Days - November         |
| RSH65DecNRHSD | 0.000671005    | 0.000   | 30.445 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RST65MayNRHSD | 0.007451203    | 0.003   | 2.559  | 1.20%   | Customer Weighted Temperature Humidity Index - May       |
| RST65JunNRHSD | 0.002655385    | 0.001   | 4.937  | 0.00%   | Customer Weighted Temperature Humidity Index - June      |
| RST65JulNRHSD | 0.001741585    | 0.000   | 10.928 | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RST65AugNRHSD | 0.001764568    | 0.000   | 13.074 | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RST65SepNRHSD | 0.001659169    | 0.000   | 6.563  | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| Feb 2005      | -386.141101748 | 106.601 | -3.622 | 0.05%   | Binary - Feb 2005                                        |
| Feb 2006      | -332.604169342 | 106.107 | -3.135 | 0.23%   | Binary - Feb 2006                                        |
| Nov 2005      | -280.082091525 | 106.398 | -2.632 | 0.99%   | Binary - Nov 2005                                        |

#### Regression Statistics

|                           |          |
|---------------------------|----------|
| Iterations                | 1        |
| Adjusted Observations     | 116      |
| Deg. of Freedom for Error | 99       |
| R-Squared                 | 0.988    |
| Adjusted R-Squared        | 0.986    |
| Durbin-Watson Statistic   | 1.980    |
| Durbin-H Statistic        | #NA      |
| AIC                       | 9.372    |
| BIC                       | 9.776    |
| F-Statistic               | 478.902  |
| Prob (F-Statistic)        | 0.0000   |
| Log-Likelihood            | -691.17  |
| Model Sum of Squares      | 83643681 |
| Sum of Squared Errors     | 1017121  |
| Mean Squared Error        | 10273.95 |
| Std. Error of Regression  | 101.36   |
| Mean Abs. Dev. (MAD)      | 73.90    |
| Mean Abs. % Err. (MAPE)   | 3.08%    |
| Ljung-Box Statistic       | 42.26    |
| Prob (Ljung-Box)          | 0.0121   |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |               |
|----------|---------------|
| INCLUDED | HH_SD         |
|          | RSH65OctNRHSD |
|          | RSH65NovNRHSD |
|          | RST65MayNRHSD |
|          | Feb2005       |
|          | Nov2005       |
|          | Feb2006       |
| EXCLUDED | NRHSD         |
|          | HDDOctNov     |
|          | Aug 2005      |
|          | AR(1)         |

## May 2006 CON Filing

### South Dakota Small Commercial and Industrial Sales Model

| Variable       | Coefficient       | StdErr     | T-Stat  | P-Value | Definition                                                                              |
|----------------|-------------------|------------|---------|---------|-----------------------------------------------------------------------------------------|
| CONST          | 43,224.265465974  | 18,245.684 | 2.369   | 2.02%   | Constant Term                                                                           |
| GMP00CSxfls    | 3.323130088       | 1.961      | 1.695   | 9.39%   | Gross Metropolitan Product - Sioux Falls                                                |
| HDDJanFebMar   | 0.000378228       | 0.000      | 2.193   | 3.11%   | Customer Weighted Heating Degree Days - Jan + Feb + Mar                                 |
| HDDOctNovDec   | 0.000154774       | 0.000      | 0.644   | 52.17%  | Customer Weighted Heating Degree Days - Oct + Nov + Dec                                 |
| RST65JulNSCISD | 0.005101231       | 0.002      | 3.387   | 0.11%   | Customer Weighted Temperature Humidity Index - July                                     |
| RST65AugNSCISD | 0.007969341       | 0.002      | 4.647   | 0.00%   | Customer Weighted Temperature Humidity Index -August                                    |
| RST65SepNSCISD | 0.009214051       | 0.002      | 3.723   | 0.04%   | Customer Weighted Temperature Humidity Index - September                                |
| CIReclass01Pre | -35,386.985710126 | 3,489.234  | -10.142 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Sep2005        | -10,783.630218741 | 5,617.574  | -1.920  | 5.84%   | Binary - Sep 2005                                                                       |
| CRS            | -9,192.775038152  | 3,457.771  | -2.659  | 0.94%   | Binary variable for the reclassification impacts after billing system conversion        |
| AR(1)          | 0.439068378       | 0.118      | 3.710   | 0.04%   | Auto Correlation Correction                                                             |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 47          |
| Adjusted Observations     | 95          |
| Deg. of Freedom for Error | 84          |
| R-Squared                 | 0.948       |
| Adjusted R-Squared        | 0.942       |
| Durbin-Watson Statistic   | 1.954       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 17.265      |
| BIC                       | 17.561      |
| F-Statistic               | 154.281     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -933.94     |
| Model Sum of Squares      | 43573245423 |
| Sum of Squared Errors     | 2372401186  |
| Mean Squared Error        | 28242871.26 |
| Std. Error of Regression  | 5314.40     |
| Mean Abs. Dev. (MAD)      | 3099.93     |
| Mean Abs. % Err. (MAPE)   | 5.84%       |
| Ljung-Box Statistic       | 34.88       |
| Prob (Ljung-Box)          | 0.0703      |

## 2007 IRP

### South Dakota Small Commercial and Industrial Sales Model

| Variable      | Coefficient       | StdErr    | T-Stat  | P-Value | Definition                                                                              |
|---------------|-------------------|-----------|---------|---------|-----------------------------------------------------------------------------------------|
| GMP00CSxfls   | 2.350494067       | 0.029     | 80.404  | 0.00%   | Gross Metropolitan Product - Sioux Falls                                                |
| RSH65JanNRHSD | 0.000702845       | 0.000     | 8.185   | 0.00%   | Customer Weighted Heating Degree Days - January                                         |
| RSH65FebNRHSD | 0.000182000       | 0.000     | 2.022   | 4.60%   | Customer Weighted Heating Degree Days - February                                        |
| RSH65MarNRHSD | 0.000285914       | 0.000     | 3.059   | 0.29%   | Customer Weighted Heating Degree Days - March                                           |
| RSH65OctNRHSD | 0.000956901       | 0.000     | 2.800   | 0.62%   | Customer Weighted Heating Degree Days - October                                         |
| RSH65DecNRHSD | 0.000396734       | 0.000     | 3.950   | 0.02%   | Customer Weighted Heating Degree Days - December                                        |
| RST65JunNRHSD | 0.015939206       | 0.002     | 6.684   | 0.00%   | Customer Weighted Temperature Humidity Index - June                                     |
| RST65JulNRHSD | 0.008215499       | 0.001     | 10.228  | 0.00%   | Customer Weighted Temperature Humidity Index - July                                     |
| RST65AugNRHSD | 0.008842280       | 0.001     | 12.783  | 0.00%   | Customer Weighted Temperature Humidity Index -August                                    |
| RST65SepNRHSD | 0.011454530       | 0.001     | 9.546   | 0.00%   | Customer Weighted Temperature Humidity Index - September                                |
| CIRclass01Pre | -31,323.828322985 | 1,066.348 | -29.375 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan2001       | 13,930.707673148  | 2,566.602 | 5.428   | 0.00%   | Binary - Jan 2001                                                                       |
| Dec2003       | 8,503.848371436   | 2,519.943 | 3.375   | 0.11%   | Binary - Dec 2003                                                                       |
| May2005       | 9,790.287165340   | 2,711.709 | 3.610   | 0.05%   | Binary - May 2005                                                                       |
| Jun2005       | 27,295.962680274  | 3,135.405 | 8.706   | 0.00%   | Binary - Jun 2005                                                                       |
| Jul2005       | 18,768.716328521  | 3,216.057 | 5.836   | 0.00%   | Binary - Jul 2005                                                                       |
| Aug2005       | 25,786.668346386  | 2,864.202 | 9.003   | 0.00%   | Binary - Aug 2005                                                                       |
| Nov2005       | 16,059.221359982  | 2,478.417 | 6.480   | 0.00%   | Binary - Nov 2005                                                                       |
| May2006       | -7,867.758419092  | 2,440.468 | -3.224  | 0.18%   | Binary - May 2006                                                                       |
| Mar2007       | 11,983.560311649  | 2,523.668 | 4.748   | 0.00%   | Binary - Mar 2007                                                                       |
| AR(1)         | 0.525471711       | 0.099     | 5.307   | 0.00%   | Auto Correlation Correction                                                             |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 20          |
| Adjusted Observations     | 115         |
| Deg. of Freedom for Error | 94          |
| R-Squared                 | 0.989       |
| Adjusted R-Squared        | 0.986       |
| Durbin-Watson Statistic   | 2.016       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 15.913      |
| BIC                       | 16.415      |
| F-Statistic               | 387.239     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1048.00    |
| Model Sum of Squares      | 56262953829 |
| Sum of Squared Errors     | 650357189   |
| Mean Squared Error        | 6918693.50  |
| Std. Error of Regression  | 2630.34     |
| Mean Abs. Dev. (MAD)      | 1800.70     |
| Mean Abs. % Err. (MAPE)   | 3.78%       |
| Ljung-Box Statistic       | 24.11       |
| Prob (Ljung-Box)          | 0.4556      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |               |
|----------|---------------|
| INCLUDED | RSH65JanNRHSD |
|          | RSH65FebNRHSD |
|          | RSH65MarNRHSD |
|          | RSH65OctNRHSD |
|          | RSH65DecNRHSD |
|          | RST65JunNRHSD |
|          | Jan2001       |
|          | Dec2003       |
|          | May2005       |
|          | Jun2005       |
|          | Jul2005       |
|          | Aug2005       |
|          | Nov2005       |
|          | May2006       |
|          | Mar2007       |
|          | AR(1)         |
| EXCLUDED | CONST         |
|          | HDDJanFebMar  |
|          | HDDOctNovDec  |
|          | Sep2005       |
|          | CRS           |

## May 2006 CON Filing

### South Dakota Large Commercial and Industrial Sales Model

| Variable           | Coefficient       | StdErr    | T-Stat | P-Value | Definition                                                                              |
|--------------------|-------------------|-----------|--------|---------|-----------------------------------------------------------------------------------------|
| EESxfls            | 93.599565109      | 46.364    | 2.019  | 4.67%   | Total Employment - Sioux Falls                                                          |
| NoBillDaysPerCycle | 465.278455197     | 185.117   | 2.513  | 1.39%   | Number of Billing Days per Billing Cycle                                                |
| Jan2001            | -16,109.873936276 | 2,245.217 | -7.175 | 0.00%   | Binary - Jan 2001                                                                       |
| ClReclass01Pre     | 31,029.454753940  | 1,131.040 | 27.434 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| RST65Jun           | 24.954887626      | 16.627    | 1.501  | 13.71%  | Temperature Humidity Index - June                                                       |
| RST65Jul           | 29.998480030      | 6.575     | 4.563  | 0.00%   | Temperature Humidity Index - July                                                       |
| RST65Aug           | 25.220335979      | 7.021     | 3.592  | 0.06%   | Temperature Humidity Index - August                                                     |
| RST65Sep           | 44.641747966      | 9.108     | 4.901  | 0.00%   | Temperature Humidity Index - September                                                  |
| MA(1)              | 0.659607195       | 0.102     | 6.474  | 0.00%   | Auto Correlation Correction                                                             |
| MA(2)              | 0.454053946       | 0.100     | 4.558  | 0.00%   | Auto Correlation Correction                                                             |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 17          |
| Adjusted Observations     | 96          |
| Deg. of Freedom for Error | 86          |
| R-Squared                 | 0.976       |
| Adjusted R-Squared        | 0.974       |
| Durbin-Watson Statistic   | 2.018       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 15.738      |
| BIC                       | 16.005      |
| F-Statistic               | 352.616     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -881.65     |
| Model Sum of Squares      | 21859265655 |
| Sum of Squared Errors     | 533128621   |
| Mean Squared Error        | 6199170.01  |
| Std. Error of Regression  | 2489.81     |
| Mean Abs. Dev. (MAD)      | 1753.55     |
| Mean Abs. % Err. (MAPE)   | 6.00%       |
| Ljung-Box Statistic       | 31.82       |
| Prob (Ljung-Box)          | 0.1314      |



## 2007 IRP

### South Dakota Large Commercial and Industrial Sales Model

| Variable       | Coefficient      | StdErr    | T-Stat | P-Value | Definition                                                                              |
|----------------|------------------|-----------|--------|---------|-----------------------------------------------------------------------------------------|
| EESxfls        | 228.526258151    | 6.777     | 33.723 | 0.00%   | Total Employment - Sioux Falls                                                          |
| SDLCI_RAP      | -86.254484496    | 11.281    | -7.646 | 0.00%   | Real Average Price - South Dakota Large C&I Customers                                   |
| RST65Jun       | 69.423634682     | 16.669    | 4.165  | 0.01%   | Temperature Humidity Index - June                                                       |
| RST65Jul       | 35.229929785     | 5.562     | 6.334  | 0.00%   | Temperature Humidity Index - July                                                       |
| RST65Aug       | 31.452948878     | 4.944     | 6.362  | 0.00%   | Temperature Humidity Index - August                                                     |
| RST65Sep       | 58.979485178     | 8.546     | 6.901  | 0.00%   | Temperature Humidity Index - September                                                  |
| RST65Oct       | 95.529977595     | 38.658    | 2.471  | 1.51%   | Temperature Humidity Index - October                                                    |
| CIReclass01Pre | 32,108.102663050 | 1,162.965 | 27.609 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Mar1998        | -7,122.751844197 | 1,935.515 | -3.680 | 0.04%   | Binary - March 1998                                                                     |
| AR(1)          | 0.614240617      | 0.079     | 7.762  | 0.00%   | Auto Correlation Correction                                                             |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 8           |
| Adjusted Observations     | 115         |
| Deg. of Freedom for Error | 105         |
| R-Squared                 | 0.977       |
| Adjusted R-Squared        | 0.975       |
| Durbin-Watson Statistic   | 1.757       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 15.531      |
| BIC                       | 15.770      |
| F-Statistic               | 452.246     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1037.13    |
| Model Sum of Squares      | 23146101362 |
| Sum of Squared Errors     | 537393385   |
| Mean Squared Error        | 5118032.24  |
| Std. Error of Regression  | 2262.31     |
| Mean Abs. Dev. (MAD)      | 1745.12     |
| Mean Abs. % Err. (MAPE)   | 5.67%       |
| Ljung-Box Statistic       | 45.67       |
| Prob (Ljung-Box)          | 0.0048      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |                    |
|----------|--------------------|
| INCLUDED | SDLCI_RAP          |
|          | RST65Oct           |
|          | Mar1998            |
|          | AR(1)              |
| EXCLUDED | NoBillDaysPerCycle |
|          | Jan2001            |
|          | MA(1)              |
|          | MA(2)              |

**May 2006 CON Filing**  
**Wisconsin Residential Total Sales Model**

| Variable        | Coefficient     | StdErr | T-Stat | P-Value | Definition                                               |
|-----------------|-----------------|--------|--------|---------|----------------------------------------------------------|
| HHEauCl         | 1,976.910093421 | 40.330 | 49.019 | 0.00%   | Households - Eau Claire                                  |
| REH65JanNRtotWI | 0.000274975     | 0.000  | 19.354 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| REH65FebNRtotWI | 0.000208030     | 0.000  | 12.910 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| REH65MarNRtotWI | 0.000170817     | 0.000  | 9.073  | 0.00%   | Customer Weighted Heating Degree Days - March            |
| REH65AprNRtotWI | 0.000146137     | 0.000  | 5.595  | 0.00%   | Customer Weighted Heating Degree Days - April            |
| HDDOctNovDec    | 0.000218663     | 0.000  | 9.750  | 0.00%   | Customer Weighted Heating Degree Days - Oct + Nov + Dec  |
| RET65JunNRtotWI | 0.001009302     | 0.000  | 2.903  | 0.47%   | Customer Weighted Temperature Humidity Index - June      |
| RET65JulNRtotWI | 0.001512057     | 0.000  | 9.651  | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RET65AugNRtotWI | 0.001691643     | 0.000  | 10.282 | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RET65SepNRtotWI | 0.001867610     | 0.000  | 7.213  | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| MA(1)           | 0.239314875     | 0.150  | 1.596  | 11.42%  | Auto Correlation Correction                              |

| Regression Statistics     |             |
|---------------------------|-------------|
| Iterations                | 14          |
| Adjusted Observations     | 96          |
| Deg. of Freedom for Error | 85          |
| R-Squared                 | 0.874       |
| Adjusted R-Squared        | 0.859       |
| Durbin-Watson Statistic   | 2.025       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 18.281      |
| BIC                       | 18.574      |
| F-Statistic               | 53.600      |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1002.69    |
| Model Sum of Squares      | 46029901217 |
| Sum of Squared Errors     | 6635884213  |
| Mean Squared Error        | 78069226.03 |
| Std. Error of Regression  | 8835.68     |
| Mean Abs. Dev. (MAD)      | 6069.15     |
| Mean Abs. % Err. (MAPE)   | 4.22%       |
| Ljung-Box Statistic       | 58.17       |
| Prob (Ljung-Box)          | 0.0001      |

## 2007 IRP

### Wisconsin Residential Total Sales Model

| Variable        | Coefficient       | StdErr    | T-Stat | P-Value | Definition                                               |
|-----------------|-------------------|-----------|--------|---------|----------------------------------------------------------|
| NRTotWI         | 0.603877978       | 0.009     | 70.680 | 0.00%   | WI Total Residential Customers                           |
| REH65JanNRtotWI | 0.000291828       | 0.000     | 41.921 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| REH65FebNRtotWI | 0.000213427       | 0.000     | 27.567 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| REH65MarNRtotWI | 0.000179674       | 0.000     | 19.668 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| REH65AprNRtotWI | 0.000157843       | 0.000     | 11.262 | 0.00%   | Customer Weighted Heating Degree Days - April            |
| REH65MayNRtotWI | 0.000132726       | 0.000     | 4.757  | 0.00%   | Customer Weighted Heating Degree Days - May              |
| REH65OctNRtotWI | 0.000120503       | 0.000     | 3.878  | 0.02%   | Customer Weighted Heating Degree Days - October          |
| REH65NovNRtotWI | 0.000116781       | 0.000     | 7.091  | 0.00%   | Customer Weighted Heating Degree Days - November         |
| REH65DecNRtotWI | 0.000271582       | 0.000     | 28.731 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RET65JunNRtotWI | 0.001930542       | 0.000     | 8.349  | 0.00%   | Customer Weighted Temperature Humidity Index - June      |
| RET65JulNRtotWI | 0.001674955       | 0.000     | 20.253 | 0.00%   | Customer Weighted Temperature Humidity Index - July      |
| RET65AugNRtotWI | 0.001710046       | 0.000     | 21.799 | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RET65SepNRtotWI | 0.001856352       | 0.000     | 13.407 | 0.00%   | Customer Weighted Temperature Humidity Index - September |
| Feb 2006        | -9,551.266397005  | 3,674.291 | -2.599 | 1.08%   | Binary - Feb 2006                                        |
| Mar 2006        | 13,922.281790146  | 3,777.775 | 3.685  | 0.04%   | Binary - Mar 2006                                        |
| Apr 2006        | -11,896.265547255 | 3,676.710 | -3.236 | 0.17%   | Binary - Apr 2006                                        |
| Aug 2006        | 13,632.409217448  | 4,086.856 | 3.336  | 0.12%   | Binary - Aug 2006                                        |
| Dec 2006        | -14,230.119604382 | 3,712.486 | -3.833 | 0.02%   | Binary - Dec 2006                                        |
| Jul 2007        | 7,788.403454392   | 3,681.697 | 2.115  | 3.70%   | Binary - Jul 2007                                        |
| Aug 2007        | 16,602.235216004  | 3,799.760 | 4.369  | 0.00%   | Binary - Aug 2007                                        |

#### Regression Statistics

|                           |             |
|---------------------------|-------------|
| Iterations                | 1           |
| Adjusted Observations     | 116         |
| Deg. of Freedom for Error | 96          |
| R-Squared                 | 0.982       |
| Adjusted R-Squared        | 0.979       |
| Durbin-Watson Statistic   | 1.986       |
| Durbin-H Statistic        | #NA         |
| AIC                       | 16.488      |
| BIC                       | 16.963      |
| F-Statistic               | 264.386     |
| Prob (F-Statistic)        | 0.0000      |
| Log-Likelihood            | -1100.90    |
| Model Sum of Squares      | 65519803294 |
| Sum of Squared Errors     | 1189531171  |
| Mean Squared Error        | 12390949.70 |
| Std. Error of Regression  | 3520.08     |
| Mean Abs. Dev. (MAD)      | 2498.90     |
| Mean Abs. % Err. (MAPE)   | 1.69%       |
| Ljung-Box Statistic       | 33.59       |
| Prob (Ljung-Box)          | 0.0923      |

#### Difference between CON Filing Model and IRP Forecast Model:

|          |                 |
|----------|-----------------|
| INCLUDED | NRTotWI         |
|          | REH65MayNRtotWI |
|          | REH65OctNRtotWI |
|          | REH65NovNRtotWI |
|          | REH65DecNRtotWI |
|          | Feb 2006        |
|          | Mar 2006        |
|          | Apr 2006        |
|          | Aug 2006        |
|          | Dec 2006        |
|          | Jul 2007        |
|          | Aug 2007        |
| EXCLUDED | HHEauCI         |
|          | HDDOctNovDec    |
|          | MA(1)           |

## May 2006 CON Filing

### Wisconsin Small Commercial and Industrial Sales Model

| Variable       | Coefficient        | StdErr     | T-Stat  | P-Value | Definition                                                                              |
|----------------|--------------------|------------|---------|---------|-----------------------------------------------------------------------------------------|
| CONST          | 97,989.518943051   | 16,374.011 | 5.984   | 0.00%   | Constant Term                                                                           |
| GMP00CEau      | 10.668547809       | 1.918      | 5.562   | 0.00%   | Gross Metropolitan Product - Eau Claire                                                 |
| HDDJanFeb      | 0.000501979        | 0.000      | 6.623   | 0.00%   | Customer Weighted Heating Degree Days - Jan + Feb                                       |
| HDDMarApr      | 0.000288363        | 0.000      | 2.727   | 0.78%   | Customer Weighted Heating Degree Days - Mar + Apr                                       |
| HDDOctNovDec   | 0.000464915        | 0.000      | 3.982   | 0.01%   | Customer Weighted Heating Degree Days - Oct + Nov + Dec                                 |
| THIMayJun      | 0.010221177        | 0.002      | 4.923   | 0.00%   | Customer Weighted Temperature Humidity Index - May + Jun                                |
| RET65JulNSCIWI | 0.006010187        | 0.001      | 6.554   | 0.00%   | Customer Weighted Temperature Humidity Index - July                                     |
| RET65AugNSCIWI | 0.007714396        | 0.001      | 8.053   | 0.00%   | Customer Weighted Temperature Humidity Index - August                                   |
| THISepOct      | 0.009543193        | 0.002      | 6.057   | 0.00%   | Customer Weighted Temperature Humidity Index - Sep + Oct                                |
| CIRclass01Pre  | -106,369.592794262 | 3,938.286  | -27.009 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan2001        | -105,775.257086033 | 9,047.917  | -11.691 | 0.00%   | Binary - Jan 2001                                                                       |
| MA(1)          | 0.181209095        | 0.126      | 1.433   | 15.58%  | Auto Correlation Correction                                                             |

| Regression Statistics     |              |
|---------------------------|--------------|
| Iterations                | 11           |
| Adjusted Observations     | 96           |
| Deg. of Freedom for Error | 84           |
| R-Squared                 | 0.984        |
| Adjusted R-Squared        | 0.982        |
| Durbin-Watson Statistic   | 2.013        |
| Durbin-H Statistic        | #NA          |
| AIC                       | 18.233       |
| BIC                       | 18.554       |
| F-Statistic               | 465.869      |
| Prob (F-Statistic)        | 0.0000       |
| Log-Likelihood            | -999.42      |
| Model Sum of Squares      | 378193440121 |
| Sum of Squared Errors     | 6199221760   |
| Mean Squared Error        | 73800259.05  |
| Std. Error of Regression  | 8590.71      |
| Mean Abs. Dev. (MAD)      | 5363.08      |
| Mean Abs. % Err. (MAPE)   | 3.59%        |
| Ljung-Box Statistic       | 39.65        |
| Prob (Ljung-Box)          | 0.0233       |

## 2007 IRP

### Wisconsin Small Commercial and Industrial Sales Model

| Variable        | Coefficient        | StdErr    | T-Stat  | P-Value | Definition                                                                              |
|-----------------|--------------------|-----------|---------|---------|-----------------------------------------------------------------------------------------|
| NSCIWI          | 1.694082869        | 0.555     | 3.051   | 0.29%   | WI Small Commercial and Industrial Customers                                            |
| RET65JulNSCIWI  | 0.003443031        | 0.001     | 4.934   | 0.00%   | Customer Weighted Temperature Humidity Index - July                                     |
| RET65AugNSCIWI  | 0.005688303        | 0.001     | 9.648   | 0.00%   | Customer Weighted Temperature Humidity Index - August                                   |
| BillDays_DPAAdj | 5,346.529486070    | 627.244   | 8.524   | 0.00%   | Number of Billing Days Per Billing Cycle Data Processing Adjusted                       |
| CRS             | -19,679.100828507  | 2,119.380 | -9.285  | 0.00%   | Binary variable for the reclassification impacts after billing system conversion        |
| CIRclass01Pre   | -116,968.207093769 | 2,806.906 | -41.672 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan 2001        | -112,142.711588287 | 8,663.790 | -12.944 | 0.00%   | Binary - Jan 2001                                                                       |
| Feb 2005        | -60,116.921384876  | 8,441.930 | -7.121  | 0.00%   | Binary - Feb 2005                                                                       |
| Apr 2006        | -27,779.595795789  | 8,461.276 | -3.283  | 0.14%   | Binary - Apr 2006                                                                       |

| Regression Statistics     |              |
|---------------------------|--------------|
| Iterations                | 1            |
| Adjusted Observations     | 116          |
| Deg. of Freedom for Error | 107          |
| R-Squared                 | 0.984        |
| Adjusted R-Squared        | 0.983        |
| Durbin-Watson Statistic   | 1.853        |
| Durbin-H Statistic        | #NA          |
| AIC                       | 18.120       |
| BIC                       | 18.333       |
| F-Statistic               | 745.015      |
| Prob (F-Statistic)        | 0.0000       |
| Log-Likelihood            | -1206.54     |
| Model Sum of Squares      | 460622209897 |
| Sum of Squared Errors     | 7350569023   |
| Mean Squared Error        | 68696906.76  |
| Std. Error of Regression  | 8288.36      |
| Mean Abs. Dev. (MAD)      | 6268.77      |
| Mean Abs. % Err. (MAPE)   | 4.08%        |
| Ljung-Box Statistic       | 75.74        |
| Prob (Ljung-Box)          | 0.0000       |

| Difference between CON Filing Model and IRP Forecast Model: |                                                                                        |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------|
| INCLUDED                                                    | NSCIWI<br>BillDays_DPAAdj<br>CRS<br>Feb 2005<br>Apr 2006                               |
| EXCLUDED                                                    | CONST<br>GMP00CEau<br>HDDJanFeb<br>HDDMarApr<br>HDDOctNovDec<br>THIMayJun<br>THISepOct |

## May 2006 CON Filing

### Wisconsin Large Commercial and Industrial Sales Model

| Variable        | Coefficient       | StdErr     | T-Stat | P-Value | Definition                                                                              |
|-----------------|-------------------|------------|--------|---------|-----------------------------------------------------------------------------------------|
| CYPNR_EAU       | 4,603.531791461   | 91.246     | 50.452 | 0.00%   | Real Personal Income Per Capita - Eau Claire                                            |
| THIJunJulAugSep | 55.883767337      | 38.191     | 1.463  | 14.70%  | Temperature Humidity Index - Jul + Aug + Sep                                            |
| CIReclass01Pre  | 106,369.164116310 | 3,455.212  | 30.785 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Feb 2005        | -52,100.331295778 | 16,454.708 | -3.166 | 0.21%   | Binary - Feb 2005                                                                       |

| Regression Statistics     |              |
|---------------------------|--------------|
| Iterations                | 1            |
| Adjusted Observations     | 92           |
| Deg. of Freedom for Error | 88           |
| R-Squared                 | 0.912        |
| Adjusted R-Squared        | 0.909        |
| Durbin-Watson Statistic   | 1.853        |
| Durbin-H Statistic        | #NA          |
| AIC                       | 19.438       |
| BIC                       | 19.548       |
| F-Statistic               | 227.174      |
| Prob (F-Statistic)        | 0.0000       |
| Log-Likelihood            | -1020.70     |
| Model Sum of Squares      | 240940957032 |
| Sum of Squared Errors     | 23333210751  |
| Mean Squared Error        | 265150122.17 |
| Std. Error of Regression  | 16283.43     |
| Mean Abs. Dev. (MAD)      | 9436.58      |
| Mean Abs. % Err. (MAPE)   | 6.90%        |
| Ljung-Box Statistic       | 15.27        |
| Prob (Ljung-Box)          | 0.9125       |

## 2007 IRP

### Wisconsin Large Commercial and Industrial Sales Model

| Variable       | Coefficient       | StdErr    | T-Stat | P-Value | Definition                                                                              |
|----------------|-------------------|-----------|--------|---------|-----------------------------------------------------------------------------------------|
| EEPBS_EAU      | 8,060.380503281   | 1,479.425 | 5.448  | 0.00%   | Employment in the Professional and Business Sector - Eau Claire                         |
| BillDays_DPAdj | 1,987.056901573   | 357.177   | 5.563  | 0.00%   | Number of Billing Days Per Billing Cycle Data Processing Adjusted                       |
| CIReclass01Pre | 109,689.348996460 | 3,304.643 | 33.192 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan 2001       | 104,935.406731154 | 6,204.597 | 16.913 | 0.00%   | Binary - Jan 2001                                                                       |
| Jul 2001       | -37,641.298918844 | 6,488.439 | -5.801 | 0.00%   | Binary - Jul 2001                                                                       |
| Dec 2004       | 26,492.182202229  | 5,876.722 | 4.508  | 0.00%   | Binary - Dec 2004                                                                       |
| Aug 2001       | 27,867.342637177  | 6,479.347 | 4.301  | 0.00%   | Binary - Aug 2001                                                                       |
| AR(1)          | 0.569794882       | 0.082     | 6.945  | 0.00%   | Auto Correlation Correction                                                             |

| Regression Statistics     |              |
|---------------------------|--------------|
| Iterations                | 7            |
| Adjusted Observations     | 115          |
| Deg. of Freedom for Error | 107          |
| R-Squared                 | 0.982        |
| Adjusted R-Squared        | 0.981        |
| Durbin-Watson Statistic   | 1.940        |
| Durbin-H Statistic        | #NA          |
| AIC                       | 17.690       |
| BIC                       | 17.881       |
| F-Statistic               | 733.631      |
| Prob (F-Statistic)        | 0.0000       |
| Log-Likelihood            | -1162.18     |
| Model Sum of Squares      | 264397847594 |
| Sum of Squared Errors     | 4820298184   |
| Mean Squared Error        | 45049515.73  |
| Std. Error of Regression  | 6711.89      |
| Mean Abs. Dev. (MAD)      | 5284.93      |
| Mean Abs. % Err. (MAPE)   | 3.65%        |
| Ljung-Box Statistic       | 77.77        |
| Proh (Ljung-Box)          | 0.0000       |

| Difference between CON Filing Model and IRP Forecast Model: |                                                                                      |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------|
| INCLUDED                                                    | EEPBS_EAU<br>BillDays_DPAdj<br>Jan 2001<br>Jul 2001<br>Dec 2004<br>Aug 2001<br>AR(1) |
| EXCLUDED                                                    | CYPNR_EAU<br>THIJunJulAugSep<br>Feb 2005                                             |

**May 2006 CON Filing**  
**Michigan Residential Total Sales Model**

| Variable        | Coefficient | StdErr | T-Stat | P-Value | Definition                                               |
|-----------------|-------------|--------|--------|---------|----------------------------------------------------------|
| NRtotMI         | 0.456114608 | 0.012  | 37.226 | 0.00%   | Total Residential Customers - Michigan                   |
| REH65JanNRtotMI | 0.000239784 | 0.000  | 22.955 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| REH65FebNRtotMI | 0.000177652 | 0.000  | 14.820 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| REH65MarNRtotMI | 0.000170184 | 0.000  | 12.105 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| REH65AprNRtotMI | 0.000134991 | 0.000  | 6.377  | 0.00%   | Customer Weighted Heating Degree Days - April            |
| REH65MayNRtotMI | 0.000096713 | 0.000  | 2.368  | 2.03%   | Customer Weighted Heating Degree Days - May              |
| REH65OctNRtotMI | 0.000062552 | 0.000  | 1.427  | 15.76%  | Customer Weighted Heating Degree Days - October          |
| REH65NovNRtotMI | 0.000093334 | 0.000  | 3.924  | 0.02%   | Customer Weighted Heating Degree Days - November         |
| REH65DecNRtotMI | 0.000196963 | 0.000  | 14.326 | 0.00%   | Customer Weighted Heating Degree Days - December         |
| RET65JunNRtotMI | 0.000344370 | 0.000  | 1.302  | 19.68%  | Customer Weighted Temperature Humidity Index - June      |
| RET65JulNRtotMI | 0.000270233 | 0.000  | 2.413  | 1.82%   | Customer Weighted Temperature Humidity Index - July      |
| RET65AugNRtotMI | 0.000321073 | 0.000  | 2.695  | 0.86%   | Customer Weighted Temperature Humidity Index - August    |
| RET65SepNRtotMI | 0.000359809 | 0.000  | 1.815  | 7.33%   | Customer Weighted Temperature Humidity Index - September |
| AR(1)           | 0.301373072 | 0.111  | 2.718  | 0.81%   | Auto Correlation Correction                              |

| Regression Statistics     |          |
|---------------------------|----------|
| Iterations                | 5        |
| Adjusted Observations     | 95       |
| Deg. of Freedom for Error | 81       |
| R-Squared                 | 0.939    |
| Adjusted R-Squared        | 0.929    |
| Durbin-Watson Statistic   | 2.129    |
| Durbin-H Statistic        | #NA      |
| AIC                       | 10.937   |
| BIC                       | 11.313   |
| F-Statistic               | 89.408   |
| Prob (F-Statistic)        | 0.0000   |
| Log-Likelihood            | -633.55  |
| Model Sum of Squares      | 61446920 |
| Sum of Squared Errors     | 3976295  |
| Mean Squared Error        | 49090.07 |
| Std. Error of Regression  | 221.56   |
| Mean Abs. Dev. (MAD)      | 151.67   |
| Mean Abs. % Err. (MAPE)   | 3.42%    |
| Ljung-Box Statistic       | 41.71    |
| Prob (Ljung-Box)          | 0.0139   |



## 2007 IRP

### Michigan Residential Total Sales Model

| Variable        | Coefficient | StdErr | T-Stat | P-Value | Definition                                               |
|-----------------|-------------|--------|--------|---------|----------------------------------------------------------|
| NRtotMI         | 0.450102582 | 0.013  | 35.528 | 0.00%   | Total Residential Customers - Michigan                   |
| REH65JanNRtotMI | 0.000247415 | 0.000  | 20.584 | 0.00%   | Customer Weighted Heating Degree Days - January          |
| REH65FebNRtotMI | 0.000182232 | 0.000  | 13.921 | 0.00%   | Customer Weighted Heating Degree Days - February         |
| REH65MarNRtotMI | 0.000181598 | 0.000  | 12.141 | 0.00%   | Customer Weighted Heating Degree Days - March            |
| REH65AprNRtotMI | 0.000144001 | 0.000  | 6.011  | 0.00%   | Customer Weighted Heating Degree Days - April            |
| REH65MayNRtotMI | 0.000116985 | 0.000  | 2.607  | 1.07%   | Customer Weighted Heating Degree Days - May              |
| REH65JunNRtotMI | 0.000259586 | 0.000  | 2.257  | 2.65%   | Customer Weighted Heating Degree Days - June             |
| REH65OctNRtotMI | 0.000087708 | 0.000  | 1.724  | 8.82%   | Customer Weighted Heating Degree Days -October           |
| REH65NovNRtotMI | 0.000139796 | 0.000  | 4.948  | 0.00%   | Customer Weighted Heating Degree Days -November          |
| REH65DecNRtotMI | 0.000200662 | 0.000  | 12.581 | 0.00%   | Customer Weighted Heating Degree Days -December          |
| RET65JulNRtotMI | 0.000402690 | 0.000  | 3.050  | 0.30%   | Customer Weighted Temperature Humidity Index - July      |
| RET65AugNRtotMI | 0.000592568 | 0.000  | 5.366  | 0.00%   | Customer Weighted Temperature Humidity Index - August    |
| RET65SepNRtotMI | 0.000427135 | 0.000  | 1.779  | 7.87%   | Customer Weighted Temperature Humidity Index - September |
| SAR(1)          | 0.386636374 | 0.094  | 4.114  | 0.01%   | Auto Correlation Correction                              |

| Regression Statistics     |          |
|---------------------------|----------|
| Iterations                | 8        |
| Adjusted Observations     | 104      |
| Deg. of Freedom for Error | 90       |
| R-Squared                 | 0.955    |
| Adjusted R-Squared        | 0.949    |
| Durbin-Watson Statistic   | 2.163    |
| Durbin-H Statistic        | #NA      |
| AIC                       | 10.640   |
| BIC                       | 10.996   |
| F-Statistic               | 137.427  |
| Prob (F-Statistic)        | 0.0000   |
| Log-Likelihood            | -686.86  |
| Model Sum of Squares      | 70959511 |
| Sum of Squared Errors     | 3319360  |
| Mean Squared Error        | 36881.78 |
| Std. Error of Regression  | 192.05   |
| Mean Abs. Dev. (MAD)      | 141.81   |
| Mean Abs. % Err. (MAPE)   | 3.17%    |
| Ljung-Box Statistic       | 28.88    |
| Prob (Ljung-Box)          | 0.2247   |

| Difference between CON Filing Model and IRP Forecast Model: |                           |
|-------------------------------------------------------------|---------------------------|
| INCLUDED                                                    | REH65JunNRtotMI<br>SAR(1) |
| EXCLUDED                                                    | AR(1)                     |

# May 2006 CON Filing

## Michigan Small Commercial and Industrial Sales Model

| Variable       | Coefficient         | StdErr  | T-Stat  | P-Value | Definition                                                                              |
|----------------|---------------------|---------|---------|---------|-----------------------------------------------------------------------------------------|
| EEA_EAU        | 54.5154469785864    | 0.721   | 75.629  | 0.00%   | Total Employment - Eau Claire                                                           |
| REH65JanNSCIMI | 0.0007054192637     | 0.000   | 9.322   | 0.00%   | Customer Weighted Heating Degree Days - January                                         |
| REH65FebNSCIMI | 0.0006796452486     | 0.000   | 7.747   | 0.00%   | Customer Weighted Heating Degree Days - February                                        |
| REH65MarNSCIMI | 0.0006867266931     | 0.000   | 6.186   | 0.00%   | Customer Weighted Heating Degree Days - March                                           |
| REH65DecNSCIMI | 0.0005819593928     | 0.000   | 5.879   | 0.00%   | Customer Weighted Heating Degree Days - December                                        |
| RET65AugNSCIMI | 0.0023516042902     | 0.001   | 2.534   | 1.32%   | Customer Weighted Temperature Humidity Index - August                                   |
| RET65SepNSCIMI | 0.0026044487260     | 0.002   | 1.710   | 9.10%   | Customer Weighted Temperature Humidity Index - September                                |
| CIReclass01Pre | -1915.5431294450900 | 66.958  | -28.608 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| March 2005     | -1058.3713782826200 | 405.100 | -2.613  | 1.07%   | Binary - Mar 2005                                                                       |
| April 2005     | -589.1891357812810  | 374.636 | -1.573  | 11.96%  | Binary - Apr 2005                                                                       |
| MA(1)          | -0.1458237710200    | 0.110   | -1.323  | 18.96%  | Auto Correlation Correction                                                             |

| Regression Statistics     |           |
|---------------------------|-----------|
| Iterations                | 9         |
| Adjusted Observations     | 96        |
| Deg. of Freedom for Error | 85        |
| R-Squared                 | 0.908     |
| Adjusted R-Squared        | 0.897     |
| Durbin-Watson Statistic   | 1.972     |
| Durbin-H Statistic        | #NA       |
| AIC                       | 11.928    |
| BIC                       | 12.222    |
| F-Statistic               | 76.183    |
| Prob (F-Statistic)        | 0.0000    |
| Log-Likelihood            | -697.79   |
| Model Sum of Squares      | 114039954 |
| Sum of Squared Errors     | 11567051  |
| Mean Squared Error        | 136082.95 |
| Std. Error of Regression  | 368.89    |
| Mean Abs. Dev. (MAD)      | 228.58    |
| Mean Abs. % Err. (MAPE)   | 6.55%     |
| Ljung-Box Statistic       | 14.39     |
| Prob (Ljung-Box)          | 0.9374    |

## 2007 IRP

### Michigan Small Commercial and Industrial Sales Model

| Variable       | Coefficient      | StdErr  | T-Stat  | P-Value | Definition                                                                              |
|----------------|------------------|---------|---------|---------|-----------------------------------------------------------------------------------------|
| EEA_EAU        | 59.102297460     | 1.778   | 33.245  | 0.00%   | Total Employment - Eau Claire                                                           |
| WICOSCI_RAP    | -19.070287637    | 4.630   | -4.119  | 0.01%   | Real Average Price for the Wisconsin Small C&I Class                                    |
| CIRclass01Pre  | -1,517.289347363 | 80.818  | -18.774 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| REH65JanNSCIMI | 0.000865441      | 0.000   | 14.077  | 0.00%   | Customer Weighted Heating Degree Days - January                                         |
| REH65FebNSCIMI | 0.000684513      | 0.000   | 10.635  | 0.00%   | Customer Weighted Heating Degree Days - February                                        |
| REH65MarNSCIMI | 0.000448033      | 0.000   | 5.853   | 0.00%   | Customer Weighted Heating Degree Days - March                                           |
| HDDOctNovDec   | 0.000470494      | 0.000   | 6.140   | 0.00%   | Customer Weighted Heating Degree Days - Oct + Nov + Dec                                 |
| THIJunJulAug   | 0.001713327      | 0.000   | 3.483   | 0.07%   | Customer Weighted Temperature Humidity Index - Jun + Jul + Aug                          |
| Nov 2000       | -1,401.005860379 | 310.656 | -4.510  | 0.00%   | Binary - Nov 2000                                                                       |
| Jan 2001       | -2,011.238210886 | 329.028 | -6.113  | 0.00%   | Binary - Jan 2001                                                                       |
| Mar 2001       | 1,328.371153817  | 331.101 | 4.012   | 0.01%   | Binary - Mar 2001                                                                       |
| Nov 2006       | -770.000073208   | 313.200 | -2.458  | 1.56%   | Binary - Nov 2006                                                                       |

| Regression Statistics     |           |
|---------------------------|-----------|
| Iterations                | 1         |
| Adjusted Observations     | 116       |
| Deg. of Freedom for Error | 104       |
| R-Squared                 | 0.931     |
| Adjusted R-Squared        | 0.924     |
| Durbin-Watson Statistic   | 1.886     |
| Durbin-H Statistic        | #NA       |
| AIC                       | 11.535    |
| BIC                       | 11.820    |
| F-Statistic               | 117.526   |
| Prob (F-Statistic)        | 0.0000    |
| Log-Likelihood            | -821.63   |
| Model Sum of Squares      | 130773249 |
| Sum of Squared Errors     | 9643573   |
| Mean Squared Error        | 92726.67  |
| Std. Error of Regression  | 304.51    |
| Mean Abs. Dev. (MAD)      | 223.63    |
| Mean Abs. % Err. (MAPE)   | 5.73%     |
| Ljung-Box Statistic       | 32.98     |
| Prob (Ljung-Box)          | 0.1046    |

| Difference between CON Filing Model and IRP Forecast Model: |                                                                                                           |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| INCLUDED                                                    | WICOSCI_RAP<br>HDDOctNovDec<br>THIJunJulAug                                                               |
| EXCLUDED                                                    | REH65DecNSCIMI<br>REH65DecNSCIMI<br>RET65AugNSCIMI<br>RET65SepNSCIMI<br>March 2005<br>April 2005<br>MA(1) |

## May 2006 CON Filing

### Michigan Large Commercial and Industrial Sales Model

| Variable        | Coefficient     | StdErr  | T-Stat | P-Value | Definition                                                                              |
|-----------------|-----------------|---------|--------|---------|-----------------------------------------------------------------------------------------|
| CONST           | 1,778.321916961 | 77.060  | 23.077 | 0.00%   | Constant Term                                                                           |
| CIReclass01Pre  | 2,449.714677666 | 112.519 | 21.772 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan 2001        | 2,488.104120959 | 339.882 | 7.321  | 0.00%   | Binary - Jan 2001                                                                       |
| HDDJanFebNovDec | 0.217868309     | 0.087   | 2.512  | 1.38%   | Heating Degree Days Jan + Feb + Nov + Dec                                               |
| MA(1)           | 0.443800951     | 0.099   | 4.498  | 0.00%   | Auto Correlation Correction                                                             |

| Regression Statistics     |           |
|---------------------------|-----------|
| Iterations                | 8         |
| Adjusted Observations     | 96        |
| Deg. of Freedom for Error | 91        |
| R-Squared                 | 0.918     |
| Adjusted R-Squared        | 0.914     |
| Durbin-Watson Statistic   | 1.903     |
| Durbin-H Statistic        | #NA       |
| AIC                       | 11.888    |
| BIC                       | 12.021    |
| F-Statistic               | 253.586   |
| Prob (F-Statistic)        | 0.0000    |
| Log-Likelihood            | -701.83   |
| Model Sum of Squares      | 140259926 |
| Sum of Squared Errors     | 12583150  |
| Mean Squared Error        | 138276.37 |
| Std. Error of Regression  | 371.86    |
| Mean Abs. Dev. (MAD)      | 266.96    |
| Mean Abs. % Err. (MAPE)   | 12.07%    |
| Ljung-Box Statistic       | 32.07     |
| Prob (Ljung-Box)          | 0.1252    |

## 2007 IRP

### Michigan Large Commercial and Industrial Sales Model

| Variable      | Coefficient      | StdErr  | T-Stat | P-Value | Definition                                                                              |
|---------------|------------------|---------|--------|---------|-----------------------------------------------------------------------------------------|
| EEA_EAU       | 23.615557426     | 1.068   | 22.111 | 0.00%   | Total Employment - Eau Claire                                                           |
| HDDJanFebMar  | 0.221807391      | 0.052   | 4.285  | 0.00%   | Heating Degree Days - Jan + Feb + Mar                                                   |
| HDDNov        | 0.330988396      | 0.111   | 2.988  | 0.35%   | Heating Degree Days November                                                            |
| HDDDec        | 0.273689063      | 0.072   | 3.788  | 0.03%   | Heating Degree Days - December                                                          |
| CIRclass01Pre | 2,354.022183315  | 146.154 | 16.106 | 0.00%   | Binary variable for the reclassification of small and large C&I customers prior to 2001 |
| Jan 2001      | 1,984.292941214  | 237.691 | 8.348  | 0.00%   | Binary - Jan 2001                                                                       |
| Mar 2001      | -1,400.022149180 | 211.313 | -6.625 | 0.00%   | Binary - Feb 2001                                                                       |
| Feb 2003      | -893.646039089   | 169.270 | -5.279 | 0.00%   | Binary - Mar 2001                                                                       |
| Sep 2004      | -971.171993195   | 168.787 | -5.754 | 0.00%   | Binary - Feb 2003                                                                       |
| Nov 2004      | 1,600.240997118  | 177.120 | 9.035  | 0.00%   | Binary - Nov 2004                                                                       |
| Feb 2001      | -1,360.177954563 | 244.886 | -5.554 | 0.00%   | Binary - Feb 2001                                                                       |
| Jan 2004      | 693.409064189    | 173.726 | 3.991  | 0.01%   | Binary - Jan 2004                                                                       |
| Apr 2007      | 420.304238376    | 171.831 | 2.446  | 1.62%   | Binary - Apr 2007                                                                       |
| AR(1)         | 0.720436641      | 0.068   | 10.526 | 0.00%   | Auto Correlation Correction                                                             |

| Regression Statistics     |           |
|---------------------------|-----------|
| Iterations                | 6         |
| Adjusted Observations     | 115       |
| Deg. of Freedom for Error | 101       |
| R-Squared                 | 0.972     |
| Adjusted R-Squared        | 0.968     |
| Durbin-Watson Statistic   | 1.964     |
| Durbin-H Statistic        | #NA       |
| AIC                       | 10.788    |
| BIC                       | 11.123    |
| F-Statistic               | 248.934   |
| Prob (F-Statistic)        | 0.0000    |
| Log-Likelihood            | -762.82   |
| Model Sum of Squares      | 150732291 |
| Sum of Squared Errors     | 4368321   |
| Mean Squared Error        | 43250.70  |
| Std. Error of Regression  | 207.97    |
| Mean Abs. Dev. (MAD)      | 152.02    |
| Mean Abs. % Err. (MAPE)   | 6.12%     |
| Ljung-Box Statistic       | 24.69     |
| Prob (Ljung-Box)          | 0.4225    |

| Difference between CON Filing Model and IRP Forecast Model: |                 |
|-------------------------------------------------------------|-----------------|
| INCLUDED                                                    | EEA_EAU         |
|                                                             | HDDJanFebMar    |
|                                                             | HDDNov          |
|                                                             | HDDDec          |
|                                                             | Mar 2001        |
|                                                             | Feb 2003        |
|                                                             | Sep 2004        |
|                                                             | Nov 2004        |
|                                                             | Feb 2001        |
|                                                             | Jan 2004        |
|                                                             | Apr 2007        |
|                                                             | AR(1)           |
| EXCLUDED                                                    | CONST           |
|                                                             | HDDJanFebNovDec |
|                                                             | MA(1)           |



### 13. Compliance

- *Xcel Energy is committed to full compliance with all applicable requirements.*

Xcel Energy is committed to complying fully with all applicable statutes and rules. While we believe our Plan reflects appropriate implementation of all requirements, we also are committed to ensuring this filing itself is fully compliant.

To this end, we have prepared a matrix reflecting our inventory of requirements to be met in this Application and cross-referenced the portion of the Plan that fulfills each requirement. We provide this matrix starting on Page 2 of this chapter.

We believe our filing complies with all applicable requirements. We look forward to the dialogue with stakeholders during this proceeding.

## 2007 Resource Plan Compliance Matrix

Docket No. E-002/RP-04-1752 (In the Matter of Northern States Power Company  
d/b/a/Xcel Energy's Application for Approval of its 2005-2019 Resource Plan):

| Order Point    | Content of Order Point                                                                                                                                                                                                                                     | Location of Order Point                                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Order Point 1  | Wind Expansion. At least 500 megawatts of this generation shall be from community-based energy development (C-BED) projects, with at least 300 megawatts deployed by 2007.                                                                                 | Chapter 5. Renewables, p. 5-1, 5-6, 5-8, 5-9                         |
| Order Point 3  | The Commission encourages Xcel Energy to improve its transmission planning to facilitate wind development by aggregating projected wind development projects and integrating these aggregated projects into regional transmission planning.                | Chapter 12. Transmission                                             |
| Order Point 4  | The Commission encourages Xcel Energy to file certificate of need applications for new transmission facilities at the same time that it commits to new wind generation, when new transmission facilities are required to support the new wind development. | Chapter 12. Transmission, p. 12-6, 12-8                              |
| Order Point 7  | Xcel Energy shall include in its next resource plan a report on its investigation into wind storage research and development.                                                                                                                              | Appendix E                                                           |
| Order Point 8  | Xcel shall use the "Goal + 25%" scenario in setting its demand-side management goals over the 2005-2019 planning period..                                                                                                                                  | Chapter 9. DSM, p. 9-6                                               |
| Order Point 9  | Xcel Energy shall issue a Request for Proposals for 136 megawatts gas peaking capacity, intended for an in-service date of 2011.                                                                                                                           | Chapter 7. New Resources, p. 7-2                                     |
| Order Point 13 | In its next resource plan, Xcel Energy shall include further information and analysis on the implications of moving from a 50% median probability forecast to a 90% probability forecast.                                                                  | Chapter 3. Forecast, p. 3-17, 3-18, 3-19                             |
| Order Point 14 | The Company shall meet with the Department to continue discussions regarding improvements to its forecast and shall file a report on these discussions on or before December 1, 2006.                                                                      | Chapter 3. Forecast, p. 3-13, 3-14                                   |
| Order Point 16 | Xcel Energy shall discuss carbon risk analysis strategies in the November 1, 2006                                                                                                                                                                          | Chapter 11. Environment, p. 11-3, 11-4, 11-5, 11-6, 11-7, 11-8, 11-9 |



## Compliance

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                               |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                | baseload certificate of need filing required in paragraph 10, in its next resource plan, in future certificate of need filings, and in other proceedings involving the acquisition of generation resources.                                                                                                                                                                                                                                                                                                                                     |                                                               |
| Order Point 17 | In its next resource plan, Xcel Energy shall report on the current state of research and development regarding capturing, shipping, and storing carbon dioxide emissions from coal-fired Integrated Gasification Combined Cycle power plants and shall provide the most reliable cost estimates currently available for those functions.                                                                                                                                                                                                        | Chapter 11. Environment, p. 11-14, 11-15, 11-16, 11-17, 11-18 |
| Order Point 18 | In its next resource plan, Xcel Energy shall provide an update on the expansion of its carbon dioxide contingency planning, including an analysis of the cost of different resource mixes under different carbon-regulatory scenarios, using the example provided in the Department's comments of August 1, 2005, adapted to reflect Xcel Energy's circumstances.                                                                                                                                                                               | Chapter 11. Environment, p. 11-7, 11-8, 11-9                  |
| Order Point 24 | Xcel Energy shall commission a study by qualified experts, similar to the ongoing wind integration study required by the Legislature, to determine what a comprehensive distributed generation strategy would entail. This study shall include a technical evaluation of the opportunities, technical potential, and economics of adding significant distributed generation resources to the Xcel Energy system.                                                                                                                                | Chapter 10. Distributed Generation                            |
| Order Point 25 | The study required in paragraph 24 must include an evaluation of large customer sites, to identify those with significant distributed generation potential, and must include evaluation of possible Combined Heat and Power initiatives with industrial customers engaged in ethanol production or other enterprises. It must also include analyses of the total technical potential for distributed generation within Xcel Energy's service area, the benefits of distributed generation, under both utility ownership and customer ownership. | Chapter 10. Distributed Generation                            |
| Order Point 26 | In its next resource plan, Xcel Energy shall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Chapter 10. Distributed Generation                            |

## Compliance

|  |                                                                                                 |  |
|--|-------------------------------------------------------------------------------------------------|--|
|  | provide a report on its progress in conducting the distributed generation study required above. |  |
|--|-------------------------------------------------------------------------------------------------|--|

Docket No. E-999/CI-06-159 (In the Matter of Commission Investigation and Determination under the Electricity Title, Section XII, of the Federal Energy Policy Act of 2005)

|               |                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                   |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Order Point 2 | <i>Fossil Fuel Efficiency Standard</i><br>Investor-owned utilities shall include information in their Resource Plans generically describing how the utility is planning to address fossil fuel efficiency to meet the goals of this standard.                                                                                                                                                              | Chapter 6. Existing Fossil and Refuse Derived Fuel, p. 6-15, 6-16 |
| Order Point 3 | Investor-owned utilities shall include information in their Resource Plans with respect to:<br><ul style="list-style-type: none"> <li>a. The heat rates of existing plants;</li> <li>b. Their efforts to maintain or improve heat rates over time; and</li> <li>c. Modeling runs(s) of ways to improve the heat rates of either the largest existing or the lowest heat rate generation plants.</li> </ul> | Chapter 6. Existing Fossil and Refuse Derived Fuel, p.6-15, 6-16  |

Docket Nos. E-002/RP-04-1752, E-002/M-07-2, E-002/CN-06-1518 (Order Suspending Contested Case Proceeding, Delaying Filing Dates, and Advancing Date for Filing Next Resource Plan)

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                         |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Order Point 2 | On or before filed December 14, 2007 (the same date as Xcel Energy's next resource plan), Xcel Energy shall file a plan which clearly lays out a proposed procedure for resolving each of the temporarily suspended resource acquisition proceedings above. The plan shall include explanation of why, given the Company's resource plan filings, each of the proposed procedural paths is reasonable.                                                                  | <u>See Compliance Filing in Response to Order Suspending Contested Case Proceeding, Delaying Filing Dates and Advancing Date for Filing Next Resource Plan, filed December 14, 2007</u> |
| Order Point 3 | As part of the resource plan it files on or before December 14, 2007, Xcel Energy shall<br><ul style="list-style-type: none"> <li>a. address any newly legislated CO<sub>2</sub> management and reduction goals and policies in Minnesota statute;</li> <li>b. consider opportunities for the installation of distributed generation as required under Minn. Stat. § 216B.2426;</li> <li>c. provide clear, consistent, and transparent information about the</li> </ul> | Chapter 11. Environment, p. 11-2, 11-7, 11-8,11-9<br><br>Chapter 10, Distributed Generation<br><br>Chapter 7, New Resources, p. 7-8, 7-9, 7-10, 7-11                                    |

**Xcel Energy  
2007 Resource Plan**

## Compliance

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
|               | <p>natural gas prices and forecasts used in its resource plan, making as much of that information public as possible;</p> <p>d. provide the results of model runs using base case, high , and low gas price assumptions, and be as clear as possible about the sensitivity of the resource outcomes to the gas prices assumptions; and</p> <p>e. clearly discuss why Xcel Energy believes that its models use reasonable assumptions (in light of, for example, actual annual aggregate volume of natural gas consumed for power generation for Xcel Energy's owned and contracted natural gas plants and current natural gas storage capacity in Minnesota) and procedure logical results.</p> | <p>Chapter 4, Modeling and Preferred Plan, p. 4-7, 4-8</p><br><p>Chapter 7, New Resources p. 7-8, 7-9, 7-10, 7-11</p> |
| Order Point 4 | On or before its December 14, 2007 resource plan filing, Xcel shall file its utility renewable energy plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Renewable Energy Plan filed December 10, 2007                                                                         |

Docket No. E,G-002/D-07-251 (In the Matter of Northern States Power Company d/b/a/Xcel Energy Request for Approval of the Annual Review of Remaining Lives Depreciation for Electric and Gas Production and Gas Storage Facilities for 2007)

|                                                |                                                                                                                                                      |                                                            |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Department Comments dated July 3, 2007, page 4 | Other issues related to the differences between the depreciation life and the planning period will be discussed in Xcel Energy's upcoming IRP filing | Chapter 6. Existing Fossil and Refuse Derived Fuel, p. 6-2 |
| Department Comments dated July 3, 2007, page 4 | The Department expects Xcel Energy to address expected retirements and contingencies for the loss of such plants in its next IRP.                    | Appendix F, Repowering Studies                             |

Docket No. E-999/CI-07-1199 (In the Matter of Establishing an Estimate of the Costs of Future Carbon Dioxide Regulation on Electricity Generation under Minn. Stat. § 216H.06)

|                                              |                                                                                                                                                                                                                                                                         |                                  |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Department Comments dated September 10, 2007 | Establish \$9 per ton as an interim carbon dioxide regulation cost estimate so that it can be included in the resource plans and generation resource acquisition proceedings that a number of utilities are expected to file with the Commission before the year's end. | Chapter 11. Environment, p. 11-8 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|

## Resource Plan-Filing Rules and Requirements

| Authority            | Required Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Location of Required Content                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 7843.0300 subpart 3. | Completeness of filing:<br>Resource plan must contain the information required by part 7843.0400, unless an exemption has been granted under subpart 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Refer to Contents of Resource Plan filing points listed below.              |
| 7843.0400.           | Contents of Resource Plan Filings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                             |
| Subpart 2.           | Advance forecasts. Include in the filing identified in Subpart 2 its most recent annual submission to the Minnesota Department of Commerce and the Minnesota Environmental Quality Board.                                                                                                                                                                                                                                                                                                                                                                                                                                  | Appendix D, Annual Report.                                                  |
| Subpart 3.           | Resource Plan. File a proposed plan for meeting the service needs of its customers over the forecast period. The plan must show the resource options the utility believes it might use to meet those needs. The plan must also specify how the implementation and use of those resource options would vary with changes in supply and demand circumstances. Utility is only required to identify a resource option generically, unless a commitment to a specific resource exists at the time of the filing. Utility shall also discuss plan to reduce existing resource through sales, leases, deratings, or retirements. | Chapter 4, Modeling and Preferred Plan. See also various resource chapters. |
| “                    | Supporting Information. Include in its resource plan filing information supporting selection of the proposed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Through out Resource Plan.                                                  |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
|   | resource plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |
| “ | <p>A) When a utility's existing resources are inadequate to meet the projected level or resource needs, the supporting information must contain a complete list of resource options considered for addition to the existing resource. At a minimum, the list must include new generating facilities of various types and sizes and with various fuel types, cogeneration, new transmission facilities of various types and sizes, upgrading of existing generation and transmission equipment, life extensions of existing generation and transmission equipment, load-control equipment, utility sponsored conservation programs, purchases from nonutilities, and purchases from other utilities. The utility may seek additional input from the commission regarding the resource options to be included in the list. For a resource option that could meet a significant part of the need identified by the forecast, the supporting information must include a general evaluation of the option, including its availability, reliability, cost, socioeconomic effects, and environmental effects.</p> | Though out Resource Plan.               |
| “ | <p>B) Supporting information must include descriptions of the overall process and of the analytical technique used by the utility to create its</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Chapter 4, Modeling and Preferred Plan. |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                        |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
|                     | proposed resource plan from the available options.                                                                                                                                                                                                                                                                                                                                                                                                        |                                                        |
| “                   | C) Supporting information must include an action plan, a description of the activities the utility intends to undertake to develop or obtain noncurrent resources identified in its proposed plan. Action plan must cover a five-year period beginning with the filing date. Action plan must include a schedule of key activities, including construction and regulatory filings.                                                                        | Chapter 1, Executive Summary.                          |
| Subpart 4.          | D) For the proposed resource plan as a whole, the supporting information must include a narrative and quantitative discussion of why the plan would be in the public interest, considering the factors listed in part 7843.0500, subpart 3.                                                                                                                                                                                                               | Chapter 1, Executive Summary, and throughout the Plan. |
| Subpart 5.          | Nontechnical summary. Utility shall include in its resource plan filing a non technical summary, not exceeding 25 pages in length and describing the utilities resource needs, the resource plan created by the utility to meet those needs, the process and analytical techniques used to create the plan, activities required over the next five years to implement the plan, and the likely effect of plan implementation on electric rates and bills. | Chapter 1, Executive Summary.                          |
| 216B.1691 Subpart 3 | Each electric utility shall report on its plans, activities, and progress with regard to these objectives in its filings under section 216B.2422 or                                                                                                                                                                                                                                                                                                       | Chapter 5, Renewables.                                 |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                | <p>in a separate report submitted to the commission every two years, whichever is more frequent, demonstrating to the commission that the utility is making the required good faith effort. In its resource plan or a separate report, each electric utility shall provide a description of:</p> <p>(1) the status of the utility's renewable energy mix relative to the good faith objective;</p> <p>(2) efforts taken to meet the objective;</p> <p>(3) any obstacles encountered or anticipated in meeting the objective; and</p> <p>(4) potential solutions to the obstacles.</p> |                            |
| 216B.2422      | Resource Planning; Renewable Energy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Chapter 5, Renewables.     |
| Subdivision 2  | Resource Plan Filing and Approval. As part of its resource plan filing, a utility shall include the least cost plan for meeting 50 and 75 percent of all new and refurbished capacity needs through a combination of conservation and renewable energy resources.                                                                                                                                                                                                                                                                                                                     | Chapter 5, Renewables.     |
| Subdivision 2a | Historical data and Advance Forecast. Each utility required to file a resource plan under this section shall include in the filing all applicable annual information required by section 216C.17, subdivision 2, and the rules adopted under that section. To the extent that a utility complies with this subdivision, it is not required to file annual                                                                                                                                                                                                                             | Appendix H, Annual Report. |

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|                         | advance forecasts with the department under section 216C.17, subdivision 2.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                     |
| Subdivision 3           | Environmental Costs. (a) A utility shall use the values established by the commission in conjunction with other external factors, including socioeconomic costs, when evaluating and selecting resource options in all proceedings before the commission, including resource plan and certificate of need proceedings.                                                                                                                    | Chapter 4, Modeling and Preferred Plan. See also Chapter 5, Renewables and Chapter 11, Environment. |
| Subdivision 4           | Preference for renewable energy facility. The commission shall not approve a new or refurbished nonrenewable energy facility in an integrated resource plan or a certificate of need, pursuant to section 216B.243, nor shall the commission allow rate recovery pursuant to section 216B.16 for such a nonrenewable energy facility, unless the utility has demonstrated that a renewable energy facility is not in the public interest. | Chapter 4, Modeling and Preferred Plan and Chapter 5, Renewables.                                   |
| Subdivision 6           | Consolidation of resource planning and certificate of need. A utility shall indicate in its resource plan whether it intends to site or construct a large energy facility.                                                                                                                                                                                                                                                                | Chapter 1, Executive Summary and Chapter 5, Renewables.                                             |
| 216B.1691 subdivision 3 | (d) The public utility that owns the Prairie Island and Monticello nuclear generation facilities shall update the reports required under section 116C.772, subdivisions 3 to 5, and shall submit those updates periodically to the public                                                                                                                                                                                                 | Appendix G-3                                                                                        |



|  |                                                                                                             |  |
|--|-------------------------------------------------------------------------------------------------------------|--|
|  | utilities commission with the utility's resource plan filing under section 216B.2422 and to the task force. |  |
|--|-------------------------------------------------------------------------------------------------------------|--|

## **12) Transmission**

## 12. Transmission

- *Expanding transmission availability through the planning, coordinating, proposing, and constructing of new transmission facilities is necessary to support the substantial wind and other renewable resources required for RES compliance.*
- *The CapX Vision Plan establishes a comprehensive planning framework for the transmission needed to accommodate 4,000 to 6,000 MW of anticipated load growth system wide by 2020. Study work is underway to re-examine the CapX Vision Plan in light of the RES standards. In the meantime, plans for incremental improvements to the transmission system to support near term RES milestones are going forward.*
- *Actively work with MISO to remove barriers to the efficient addition of generation and transmission development.*

### Overview

In this chapter, we outline the transmission planning efforts being undertaken to meet the growth in demand and generation over the period covered by this Resource Plan. We describe the current transmission developments underway to meet near term requirements as well as the outlook for future transmission construction. We also discuss the challenges associated with the MISO queue process used to study the addition of potential new generation on the transmission system.

As the Commission and stakeholders are aware, transmission and supporting ancillary services are critical to moving wind energy from production areas to load centers. The intermittent nature of wind energy poses additional issues for the system, as quick-start and other resources are required to step in or back down as wind production rises and falls.

The transmission grid is currently operating at or near maximum capacity and additional resources are proposed and planned for the region. The new wind outlet capacity created by a 2001 Certificate of Need for transmission on Buffalo Ridge in southwest Minnesota (the prime wind-producing area of the state) is already fully

utilized (Docket No. E002/CN-01-1958). We recently received approval to further expand the transmission network in the area with the addition of three 115-kV transmission lines, scheduled to be on-line in Spring 2009 (Docket No. E002/CN-06-154).

### **Renewable Energy Standards Report**

Every two years, Minnesota Transmission Owners are required to file a Biennial Transmission Report. The 2007 Legislature directed Minnesota utilities to include a plan for identifying and developing the necessary transmission resources to comply with the RES in the 2007 Biennial Transmission Plan. These reports were filed on November 1, 2007 (PUC Docket E999/ M-07-1028). The Reports can be found at the Minnesota Department of Commerce's e-filing web site or at [www.minnelectrans.com](http://www.minnelectrans.com).

The Biennial Transmission Report is intended to list specific present and foreseeable future transmission inadequacies; identify alternatives to address system inadequacies; identify general economic, environmental, and social issues associated with the alternatives; and summarize the input that transmission owners and operators gather from the public and local governments to assist in developing and analyzing alternatives.

The Renewable Energy Standards Report included as part of this filing, indicates that Minnesota utilities are on course to meet the 2010 milestone established by the RES and -- with modest upgrades in lower-voltage transmission lines and already planned upgrades and additions -- transmission providers expect to be able to meet the infrastructure requirements associated with the 2012 milestones as well.

However, meeting the RES milestones of 2016 and beyond will require transmission upgrades and, or additions that are not yet fully developed and will be influenced by the magnitude and location of wind development. Although the best wind profiles are centered on Buffalo Ridge in the southwest corner of the state, there are also good wind resources along the southern, southeastern, and western borders of the state and in the Dakotas as well.

As articulated in the Biennial Transmission Plan, the utilities have committed to and commenced the transmission planning needed to ensure capacity is available to meet the 2016 RES milestones through the Minnesota Transmission Owners' group and CapX 2020 efforts.

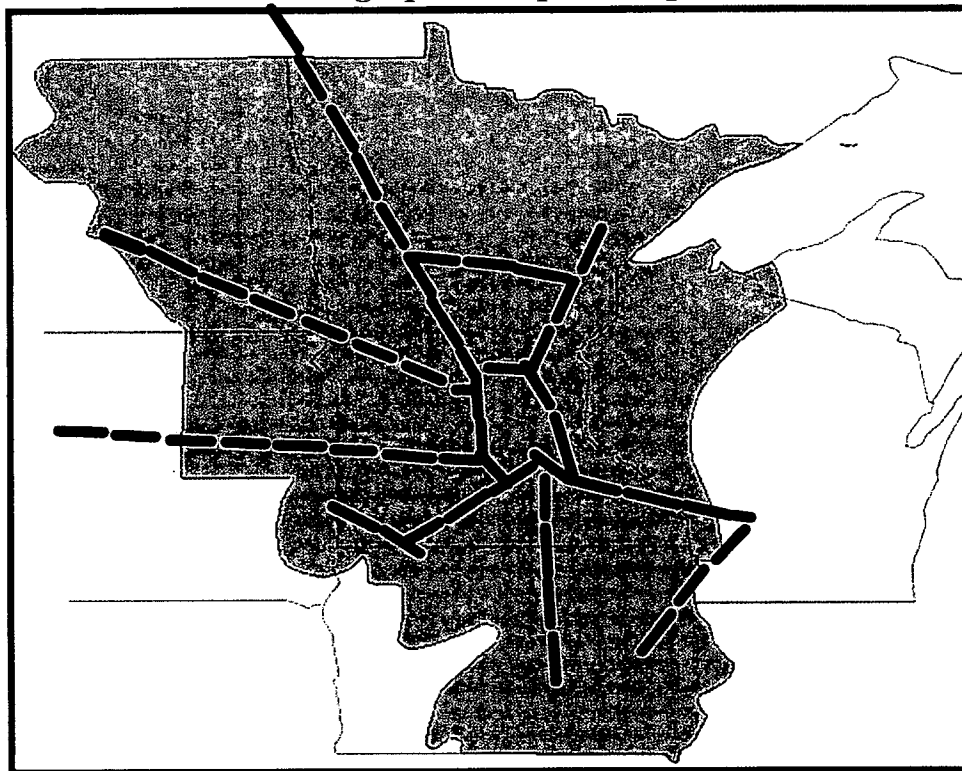
### **CapX 2020**

The transmission requirements needed to support Xcel Energy's Resource Plans are part of a comprehensive analysis of transmission performance conducted jointly by a number of the state's utilities. That transmission planning and development effort has become known as CapX 2020. More detailed information about the effort can be found on the web at [CapX2020.com](http://CapX2020.com). The paragraphs that follow summarize the CapX Certificate of Need filing in Docket ET02, E-002/CN-06-1115.

It has been nearly three decades since the high-voltage electrical network serving Minnesota has been expanded to any large degree. At the same time the demand for power has continued to grow. Rather than address each emerging transmission issue as it surfaces, planning engineers from several regional utilities decided to examine Minnesota's transmission infrastructure more comprehensively. A study effort was undertaken in 2004-2006 to examine the transmission needs of the state that would be necessary to meet the power requirements of customers anticipated by the year 2020. The CapX 2020 Initiative developed an overall comprehensive plan. That plan is set forth in the CapX 2020 Technical Update: Identifying Minnesota's Electric Transmission Infrastructure Needs (May 2005)(updated October 2005)(the "Vision Plan").

The Vision Plan focused on the overall systems of utilities serving Minnesota customers and the growth in the demand for electricity anticipated in those systems by the year 2020. The geographic scope of the CapX 2020 study work is shown in Figure 12-1.

Figure 12-1  
Geographic Scope of CapX 2020



Planning Engineers relied on forecasts of the growth in electrical demand from generation planners, Load and Capability Reports to regional reliability agencies and from Resource Planning proceedings before the Minnesota Public Utilities Commission. Forecasts projected that the demand for electrical power will grow by 4,000 to 6,000 MW in the study area by 2020.

The CapX 2020 engineering analysis found that the State and surrounding region would experience numerous transmission overloads, outages, and voltage problems if no transmission additions were made. Planning engineers then began to examine potential solutions to the system overloads. The performance of the transmission system depends not only on the size and location of the demand for power but also on the location of the power plants to meet that demand. After consulting with generation planners, developers, and other stakeholders on their predictions of the distribution of generation, planning engineers decided to test potential solutions using varying generation distribution solutions. They examined three scenarios,

each with a different geographic bias. The first looked at the transmission needs if a large portion of new generation were located to the west; the second assumed a generation bias primarily in Minnesota, and the third contained a more eastern bias.

Based on the results of those studies, transmission planners foresee the need for significant additions to the high voltage network that serves Minnesota and surrounding states over the next few decades. The Vision Plan conceptually calls for a second 345 kV transmission ring around the Twin Cities metropolitan area with radial additions to large load centers, concentrations of generation and neighboring systems. By providing a more robust network of 345 kV transmission lines, the system can continue to operate reliably while accommodating substantial growth.

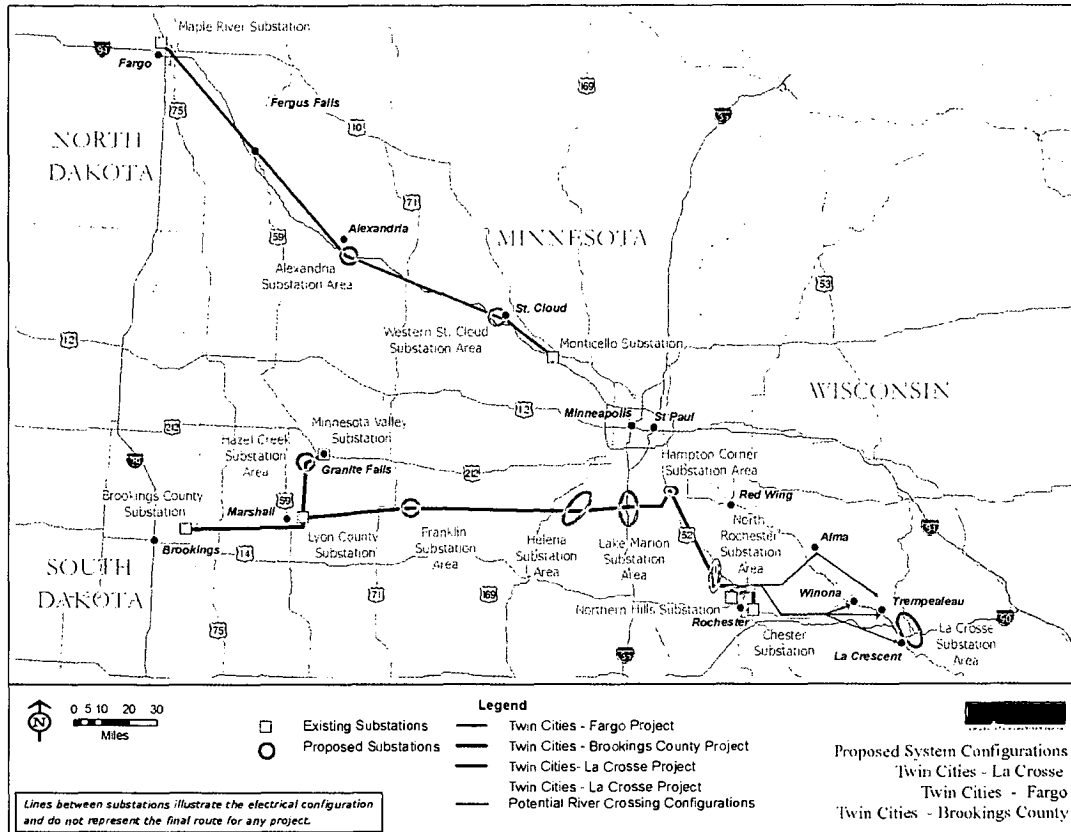
The CapX utilities began the implementation of the plan with a group of four transmission projects known as Group 1 projects. Group 1 projects were chosen because they were found to be common elements in any of the transmission plans developed to respond to the three potential generation bias' mentioned above. These lines were determined to be "backbone" lines necessary where ever new generation is added on the system.

The projects include:

- **Twin Cities – La Crosse:** an approximately 150-mile, 345 kV transmission line between the southeast corner of the Twin Cities, Rochester, and La Crosse, Wisconsin. This project also includes two new 161 kV transmission lines from a new North Rochester Substation into Rochester.
- **Twin Cities – Fargo:** an approximately 250-mile, 345 kV transmission line between Monticello, St. Cloud, Alexandria, and Fargo, North Dakota.
- **Twin Cities – Brookings County:** an approximately 200-mile, 345 kV transmission line between the southeast corner of the Twin Cities and Brookings County, South Dakota, as well as a 25-mile 345 kV segment from Marshall to a new Hazel Creek Substation in the Granite Falls area and a 10-mile 230 kV line from Hazel Creek to Minnesota Valley Substation in Granite Falls.

- **Bemidji–Grand Rapids** a 70 mile 230 kV project between Grand Rapids and Bemidji.

**Figure 12-2**  
**345 kV Transmission Projects**  
**CapX Certificate of Need Application**  
**August 2007, Docket ET2, E-002/CN-06-1115**



The CapX 2020 utilities filed Certificate of Need applications in August with the Minnesota Public Utilities Commission for the three 345-kV projects. A separate application will be filed for the 230-kV line shortly. The utilities are also seeking project approval and permits for each of the proposed 345-kV transmission lines from regulatory Commissions in North Dakota, South Dakota and Wisconsin.



CapX 2020's application indicates that these three lines are needed to ensure reliability in the region, and comprise "backbone" infrastructure expansion required regardless of where, how, and what type of generation resources develop over time.

However, the RES was not envisioned at the time the CapX 2020 Vision Plan was developed and the RES has the effect of increasing the amount of transmission capacity that will be required to transmit power beyond that which was studied in the CapX Vision Plan. The CapX planning work focused on forecasts of growth in the demand from 4,000 to 6,000 megawatts by 2020. Since wind generation is an intermittent resource, other generating facilities must be built to supply power when wind turbines are not producing at full output. If wind turbines and the "back up" resource are located electrically close to each other and co-dispatched so that total output is fixed, the transmission capacity needed is minimized. However if the two resources are not located together or if it is desirable to dispatch both resources independently, more new transmission facilities will be needed.

In light of increasing demands on the transmission system related to the RES, Minnesota transmission owners chose to re-examine and update the CapX Vision plan. A program of studies was designed to examine transmission requirements necessary under a number of possible generation expansion scenarios while still meeting the other system reliability targets of the CapX Vision. That study effort is described in the Renewable Energy Standards Report. Transmission engineers expect to complete substantial parts of the analysis in 2008 so that the transmission needed to meet intermediate and longer term RES milestones can be identified, permitted and developed in a timely manner.

### **Near Term Transmission Development**

Transmission providers continue to develop a number of projects in the near term while more comprehensive planning is going on. Next spring Xcel Energy will complete the program of transmission projects needed to support 825 megawatts of generation in the Buffalo Ridge area Authorized in Docket No. E002/CN-01-1958. Development is underway on three, 115 kV transmission lines in the Buffalo

Ridge area that will increase transmission capability from the Ridge to approximately 1,250 megawatts by spring 2009 (Docket No. E002/CN-06-154).

Electrical engineers are completing analysis of incremental improvements that can be made in the southeastern part of the state to support interest in wind development there also. We anticipate filing CON applications sometime in 2008 for one or more 161 kV lines in the southeastern area of the state to facilitate 600 megawatts or more of generation with an anticipated in-service of 2010.

The CapX Group 1, 345 kV projects would also add significant amounts of transmission capacity in support of generation expansion and load growth. The Brookings – Twin Cities project would raise transmission support in the Buffalo Ridge area to around 1,800 to 1,900 megawatts from 1,250 megawatts. The Fargo - Twin Cities line would increase transmission support in northwestern Minnesota and North Dakota by roughly 300 more megawatts.

Planning is underway to expedite development of the next element of the 345 kV network after the Brookings line. Engineers are examining the possibility of replacing an existing 230 kV transmission line between the Twin Cities and Granite Falls with a 345 kV line. This line upgrade depends upon the approval and construction of the Brookings line.

#### **MISO Interconnection Queue and Transmission Cost Allocation Processes**

Access to the transmission system for new or expanded generation resources must be granted through the MISO interconnection and transmission service request processes, as specified in MISO open access transmission tariffs. MISO grants access only after completion of prescribed engineering analyses to ensure the system can operate reliably. To the extent additional transmission resources are needed to serve the request, access will be granted only after contracts are executed with the generator to cover their share of the costs under the MISO Open Access Transmission Tariff, and any required new or upgraded transmission is constructed.

Interconnection requests are addressed on a first-come, first-served basis as documented in the MISO interconnection queue. As of October 2007, MISO had received approximately 175 generation interconnection requests in 2007 alone and 113 of the 280 active requests in the MISO queue were for wind projects located in Minnesota. Currently MISO has generation interconnection requests in the queue amounting to over 68,000 MW. Approximately 52,000 MW of those requests are for wind generation, with 22,000 wind generation requests having been added to the queue since September 2007. While it is recognized that a number of the projects in the queue are “speculative” projects, the overall MW requests for interconnection far exceeds the anticipated load growth in the area. And, due to the number of requests and MW amount of the requests, it will take many years to analyze all the requests currently in the queue under the current queue process. There are a number of issues with the queue process that pose specific challenges for wind development and possibly our ability to comply with the RES on a timely basis. First, because a PPA is not a prerequisite for a place in the MISO queue, a sizable percentage of projects in the queue are presently speculative; nonetheless, the MISO analysis assumes that all projects are developed in sequence. This means that necessary transmission upgrades are assigned to the access request that first triggers them, and then assumed to be in service for requests studied subsequently. If earlier queued projects later drop out, re-studies are required for those subsequent projects to reallocate required transmission upgrades. This process results in significant uncertainty for all involved parties.

Second, MISO assigns all of the incremental transmission cost to the next increment or small group of generation even though the transmission improvement may be able to provide service to substantially more generation than the project requesting interconnection. As a result, power purchase agreements are very difficult to complete, cost-effective projects are delayed, and developers have incentives to enter the queue to achieve competitive advantage regardless of the merits or status of their projects.

In response to growing concerns about these processes, MISO has initiated discussions with stakeholders and is working on developing an alternative process. Within this discussion process Xcel Energy has proposed that MISO allow any developer holding a PPA to connect to the system and deliver power on a non-firm basis while the transmission impacts and cost responsibilities are estimated and assigned in an equitable manner. In addition, MISO is exploring the concept of an open season subscription process that would place greater emphasis on the status of the power purchase.

At the same time we are working with MISO on a new process, we are taking additional steps to keep those projects needed to meet the 2010 RES milestone on track. For example, we are pursuing arrangements, to allow interconnection and energy delivery under some circumstances prior to completion of all necessary transmission upgrades. In addition, we are pre-studying transmission requirements necessary to support wind development on a generic basis to provide more informed and comprehensive transmission plans into the MISO Planning process. We are hopeful that these processes provide a means for continuing to interconnect wind resources in a timely manner as additional transmission resources are developed.

MISO along with stakeholders are exploring options to overcome some of the problems resulting from the queue based interconnection process and the transmission service request process. There is a current effort in progress to develop an alternative process that will try to move projects along in a more timely manner, while also better recognizing load demand with generation supply and will address cost allocation concerns. MISO has published a white paper titled *Proposal to Remove Barriers to Efficient Transmission Investment*, which is currently being vetted by various MISO stakeholders.

MISO also believes the current interconnection policies governing the assessment of transmission costs may be diminishing prospects for the efficient development of generating resources in areas that may be ideally situated for the location of a

generator, such as a renewable resource, but which are severely constrained from a transmission capability perspective. As a result, MISO believes that consideration of new mechanisms for sizing and funding network transmission facility upgrades in order to promote construction of appropriate transmission facilities is warranted. Xcel Energy agrees with the concerns raised by the MISO and other stakeholders and supports this ongoing effort.

Additionally, MISO has recently initiated a Generation Interconnection Queue Process Working Group. The goal of the Working Group is to identify solutions to reduce process cycle time and introduce additional predictability around the timing of the Generation Interconnection Queue process. However, any solution is subject to stakeholder and FERC approval.

### **Conclusion**

Significant study is underway to establish a comprehensive planning framework for new transmission that can respond to generation planning efficiently in the years to come. The major drivers tending to influence the transmission requirements associated with new generation include distance from the major load centers (particularly the Twin Cities), size of the proposed addition, nearness to other generation, and whether the proposed generation site is near an existing major (345/500 kV) interconnection.

Over time, the electrical system has become a complex network of interconnected electrical paths. The current flowing on any element of the interconnected system changes constantly and depends on where the demand for electricity is, where the generation responding to that consumer demand is located, and the elements of the transmission system between generator and consumer available at the time.

Current studies indicate that utilities can meet the 2010 RES milestone with modest upgrades in lower-voltage transmission lines and with currently planned upgrades and additions, we can also meet the 2012 milestones. Meeting the RES milestones of 2016 and beyond will require transmission upgrades and, or additions that are

not yet fully developed and will be influenced by the magnitude and location of wind development.

Accordingly, we have included the following in our five-year Action Plan:

- *Continue efforts to expand transmission availability through the planning, coordinating, proposing, and constructing of new transmission facilities as a participant in the CapX 2020 vision work.*
- *Continue our efforts with MISO to improve the processes that are currently barriers to efficient generation and transmission development, generator interconnection and transmission cost allocation.*

## **11) Environment**

## 11. Environment

- *Environmental requirements – both new and anticipated – are key drivers of the Resource Plan.*
- *Meeting the goals set out in the Next Generation Energy Act will require an aggressive reduction of existing carbon-emitting resources. Xcel Energy is on the path to meeting these goals based on this Resource Plan.*
- *Our Preferred Plan provides more than a 20% reduction in system CO<sub>2</sub> emissions over 2005 levels by 2020 and has the collateral benefit of reducing SO<sub>2</sub> and NO<sub>x</sub>.*

Xcel Energy's commitment to environmental leadership is reflected in many aspects of our business. The Company's Triple Bottom Line Report (a report summarizing our corporate social responsibility, environmental stewardship and community involvement), our listing on the Dow Jones Sustainability Index, and Carbon Disclosure Project reports are all highly visible public statements of our environmental values. In this Resource Plan, our vision for future resource acquisition and investment is heavily influenced by growing concerns about the impacts of fossil fuel use, global climate change, and the likelihood that state and federal governments will enact regulations that will place an economic cost on future carbon emissions.

In addition to providing information on Xcel Energy's risk management strategy for future global climate change regulation and how this strategy ties in with the goals set out by the Minnesota Legislature in the Next Generation Energy Act, this chapter discusses the environmental assumptions that we incorporated into the Plan. Because there is considerable regulatory uncertainty in regard to future environmental regulations, our plan includes a number of scenarios to evaluate potential future environmental compliance requirements.



### Environmental Externalities

This Resource Plan includes the environmental externality cost values as required by Commission order with the exceptions noted below. The environmental cost values as required by Commission order were updated through 2006 and published on July 12, 2007. Because 2008 is the base year for our plan, we escalated the Commission's values to 2008 using our 1.88 percent growth rate. For CO<sub>2</sub> values, we used values derived from our study and following discussion with environmental parties. This is consistent with the 2004 Resource Plan Order. Although different than the Commission's range, these values provide important assessment of potential CO<sub>2</sub> emission regulation. We note that the Commission considered this issue recently in Docket No. E-999/CI-07-1199 discussions were still in progress. However, we are not inconsistent with the Commissioners' direction in this docket.

The second change is in our evaluation of the costs of oxides of nitrogen ("NO<sub>x</sub>"). Because the Clean Air Interstate Rule ("CAIR") will impose a NO<sub>x</sub> allowance trading system on electric generating facilities by 2009, Xcel Energy included the estimated costs of NO<sub>x</sub> allowances on future NO<sub>x</sub> emissions, rather than apply NO<sub>x</sub> externality values. We believe that the NO<sub>x</sub> allowance costs represent a more accurate picture of future environmental costs on our system. Including both NO<sub>x</sub> allowance costs and externality costs would amount to a double counting of emission costs on our system. This change is consistent with the Commission's handling of the sulfur dioxide ("SO<sub>2</sub>") allowance trading program, in that it eliminated the SO<sub>2</sub> externality value when the SO<sub>2</sub> allowance trading system was fully in effect.

The first step in the process of applying externality values is to identify the emission rates associated with existing Xcel Energy generation facilities and purchased power contracts and estimate emission rates for each pollutant for new generation additions. Estimates are incorporated into Strategist modeling. The next step is to assign a location category to each resource so that the appropriate externality range can be applied to emissions from the resource.

The third step in estimating externality costs for resource options is to estimate the energy production throughout the planning period, using the Strategist model. For each resource, total energy production is multiplied by the unit heat rate and emission rate to estimate total emissions of the pollutant in question from each resource for the planning period. Total emissions are then multiplied by the appropriate externality value for the location. Total externality costs for all facilities in the scenario are summed to establish an estimate of total scenario externality costs.

### **CO<sub>2</sub> Analysis**

The issue of global climate change is in the forefront of public policy debates in the United States. Today, Congress, state legislatures and policy makers across the country and around the world are gradually identifying and adopting policies to address greenhouse gas (“GHG”) emissions. In Minnesota, Governor Pawlenty and the Legislature have made global climate change a top priority, most notably through the Next Generation Energy Act.

Global climate change and the likelihood of future GHG regulation underlie the approach proposed in this Resource Plan. Xcel Energy believes that by the time we file our next Resource Plan, the nation will be subject to regulations designed to reduce GHG emissions, and that those regulations will have a significant impact on the Company’s operations.

Global climate change is a complex issue that affects the Company in many ways. This discussion touches on the major aspects of global climate change as a resource planning factor, beginning with federal, state and regional policy initiatives, continuing with the impacts of climate policy on our business landscape including the pricing of CO<sub>2</sub>, and concluding with the implications for this Resource Plan.

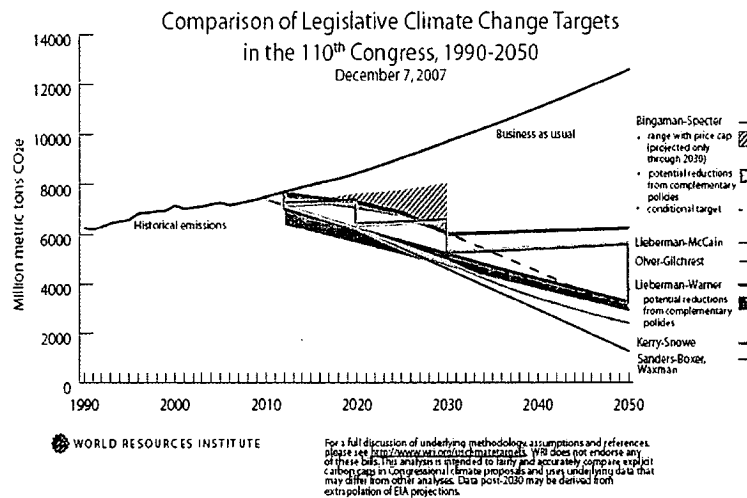
*Federal Legislative Proposals*

The current Congress is considering a number of bills that address global climate change. These bills include legislation sponsored by Senator Bingaman, Senator Lieberman, Senator Boxer, and Senator Kerry, among others. The bills usually have some bi-partisan support. Although these bills vary in structure and format, most of them share several common traits. On December 5, 2007, the Senate Environment and Public Works Committee passed the American Climate Security Act sponsored by Senator Lieberman and Senator Warner. Like the other climate policy bills under consideration, the Lieberman-Warner bill would impose CO<sub>2</sub> emission limits on the entire economy and target some level of emission reductions by 2020. The bills all target much more aggressive reductions by 2050. They would use a “cap and trade” policy structure – placing an overall limit on GHG emissions across the economy and allowing sources to trade emission allowances with each other to meet their emission targets. However similar, the bills vary dramatically in their particulars, including whether they incorporate “safety valves” (*i.e.* maximum carbon prices) and how they allocate emissions.<sup>1</sup> A comparison of the reductions proposed by the bills is shown in Figure 11-1.

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<sup>1</sup> Xcel Energy supports a national Clean Energy Portfolio Standard, which would use a mechanism similar to a renewable portfolio standard to promote the use of clean technology and limit GHG emissions from the utility industry.

**Figure 11-1**  
**GHG Emission Trajectories Under Proposed Federal Legislation**



Many of these programs are generally designed to reduce CO<sub>2</sub> emissions to levels that, according to many computer models, would put the U.S. share of global emissions on a trajectory to help stabilize atmospheric CO<sub>2</sub> concentrations at 450 to 550 parts per million, or roughly twice pre-industrial levels.

Most recently, on December 6, 2007, the House passed legislation that in addition to increasing fuel economy standards for cars and light trucks sold in the United States, the legislation requires utilities to produce 15 percent of electricity from renewable sources by 2020.

#### *State and Local Climate Policies*

The states are not waiting for Congress to act. States throughout the country are proposing CO<sub>2</sub> emission reduction programs and using other policy mechanisms to address GHG emissions. In Minnesota, the Legislature and Governor Pawlenty have already passed the most stringent renewable energy standard in the nation and both

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aggressive energy efficiency requirements and statewide GHG emission reduction goals through the Next Generation Energy Act. This also requires a plan for regulatory action and establishes a formal stakeholder process (the Minnesota Climate Change Advisory Group) to make recommendations on future policies related to climate change. It further reinforces the regulatory process that requires CO<sub>2</sub> valuation in resource planning. Prospective state and federal climate policies have profound implications for the Company's resource planning.

*Impacts of Climate Policy on the Energy Industry*

To meet the challenge of global climate change and prospective regulation while continuing to provide reasonably priced, reliable energy service to its customers, Xcel Energy and the industry will need to undertake significant changes.

First, because of the long planning periods that must be employed in the utility industry, we need to act early and make decisions about our resources despite the fact that climate change regulation has not yet been implemented.

Second, there is today no single "solution" that will allow the Company to achieve significant GHG reductions while meeting its obligation to serve its customers. The Company must rely on a diverse portfolio of clean resources available today to bridge the gap to a clean energy future tomorrow. Integrated transmission planning will be a critical component of this strategy because it can link utility customers to the clean energy supplies (e.g. renewable energy resources and areas with good geologic sequestration opportunities).

Third, as these technologies evolve, we must have the flexibility to adjust our strategies. It is highly likely that investment in research, development and deployment will need to be reconsidered in order to meet the challenges of the new energy landscape. Today's programs may be supplanted by new approaches to innovative technology in the regulated utility context.

*Carbon Dioxide Pricing*

There are many GHGs, but CO<sub>2</sub> is the most important for policy and planning purposes. CO<sub>2</sub> pricing provides a suitable representation of regulatory risk and climate policy direction. The two main types of GHG emission reduction policy proposals are “cap and trade” programs that require reduced levels of emissions in conjunction with tradable emissions allowances, and “carbon tax” programs that levy a fee on GHG emissions. Both impose a price for CO<sub>2</sub> emissions to fossil generators in the electric power sector. A CO<sub>2</sub> price could come from the market for emissions reduction under a cap and trade program, or could come directly from a carbon tax. In either case, the CO<sub>2</sub> price imposes a new operating cost to new and existing fossil power plants.

To develop our CO<sub>2</sub> emissions price scenarios, we have researched recent, publicly available analyses of mandatory greenhouse gas policies. Numerous analyses of U.S. GHG emission reduction policies have been performed and we have selected a set of analyses that we believe represent the range of current public thought about U.S. CO<sub>2</sub> pricing. In addition to these analytic results, we have also reviewed CO<sub>2</sub> price curves based on the statutory price ceiling or “safety valve” prices from three proposed federal bills. We have also included the carbon proxy cost of \$9/ton used in other dockets. On December 7, 2007, in Docket No. E-999/CI-07-1199, the Commission adopted new interim values for CO<sub>2</sub> to be used in resource planning for 2008, a cost estimate range from \$4 to \$30 per ton. An Order has not yet been issued in this case.

**Table 11-1**  
**Levelized Carbon Dioxide Prices From Various Sources**

| Scenario Name                       | Note                                                                                                                                  | Levelized 2010-2030<br>\$/metric ton CO <sub>2</sub> e |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Bingaman '06 (EIA)                  | EIA analysis from January 2007 of Bingaman 2006 cap proposal, "Phased Auction" or main case. Bingaman's policy has since been updated | \$9.16                                                 |
| Bingaman '06 (Safety Valve)         | Carbon price set at statutory price ceiling (not a modeled result) from Bingaman 2006 cap proposal                                    | \$10.15                                                |
| Bingaman '05 (Safety Valve)         | Carbon price set at statutory price ceiling (not a modeled result) from Bingaman/NCEP 2005 cap proposal                               | \$10.42                                                |
| 2003 PSCo Resource Plan Proxy Cost  | 2004 Settlement Agreement between stakeholders related to Comanche 3 coal plant                                                       | \$12.01                                                |
| Bingaman '07 (NCEP)                 | NCEP analysis from July 2007 of Bingaman 2007 cap proposal. Based on EIA "High Technology" case                                       | \$13.19                                                |
| Lieberman '06 (EIA - Low Price)     | EIA analysis from July 2007 of Lieberman-McCain S. 280 cap proposal, "Fixed 30 Percent" or high offsets case                          | \$16.10                                                |
| Lieberman '06 (US EPA - Low Price)  | US EPA analysis from July 2007 of Lieberman-McCain S. 280 cap proposal, "Senate Scenario," ADAGE model                                | \$16.24                                                |
| Bingaman '07 (Safety Valve)         | Carbon price set at statutory price ceiling (not a modeled result) from Bingaman 2007 cap proposal                                    | \$17.40                                                |
| Lieberman '06 (US EPA - High Price) | US EPA analysis from July 2007 of Lieberman-McCain S. 280 cap proposal, "Senate Scenario," IGEM model                                 | \$22.99                                                |
| MIT (Low Price)                     | MIT Analysis from April 2007 of a policy that includes a safety valve, titled "Core scenario: 287 bmt"                                | \$23.72                                                |
| Lieberman '06 (EIA - Medium Price)  | EIA analysis from July 2007 of Lieberman-McCain S. 280 cap proposal, "S.280 Core" or medium offsets case                              | \$25.19                                                |
| Lieberman '06 (EIA - High Price)    | EIA analysis from July 2007 of Lieberman-McCain S. 280 cap proposal, "No International" or low (domestic only) offsets case           | \$32.97                                                |
| MIT (Medium Price)                  | MIT Analysis from April 2007 of a 1995 by 2020, 50% below 1990 by 2050 policy, titled "Core scenario: 203 bmt"                        | \$54.79                                                |
| MIT (High Price)                    | MIT Analysis from April 2007 of a 1990 by 2020, 80% below 1990 by 2050 policy, titled "Core scenario: 167 bmt"                        | \$71.18                                                |

As demonstrated by the table above, there is a significant range of possible CO<sub>2</sub> values. Based on our research, we believe that the range of CO<sub>2</sub> price scenarios in the analyses shown above will encompass most likely GHG emission reduction policies. To better compare the CO<sub>2</sub> price curves from the analyses considered, we performed a simple levelization analysis. Levelization allows us to compare price curves from analyses and statutory "safety valve" prices with different starting years and escalation rates. To levelize the price curves, we calculated the net present value of each CO<sub>2</sub> price curve from 2010-2030 and then created a levelized series of annual prices from 2010 to 2030 with an equivalent net present value. We note that while these levelized values are useful for comparison purposes, we used CO<sub>2</sub> price curves rather than

levelized values in the actual Resource Plan modeling work. Table 11-2 below presents the levelized CO<sub>2</sub> price results used in our Plan. In light of the significant ongoing changes in the political climate regarding GHG emission regulation, we believe that the “Medium” scenario set forth below is the appropriate base case for modeling and analysis, and that the “Low” and “High” represent appropriate sensitivities.

**Table 11-2**  
**2007 CO<sub>2</sub> Price Scenarios**

| Scenario | 2008 Price<br>(\$/short ton CO <sub>2</sub> ) | 2030 Price<br>(\$/short ton CO <sub>2</sub> ) | 2010 Price<br>(\$/metric ton CO <sub>2</sub> ) | 2010-2030 Levelized Price<br>(nominal \$/metric ton CO <sub>2</sub> ) |
|----------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------|
| Low      | \$9.00                                        | \$16.39                                       | \$11.02                                        | \$13.34                                                               |
| Medium   | \$20.00                                       | \$32.77                                       | \$22.05                                        | \$26.69                                                               |
| High     | \$40.00                                       | \$65.54                                       | \$44.09                                        | \$53.38                                                               |

By including the prices above in our various planning scenarios, we have evaluated the costs of different carbon-regulatory scenarios and different resource mixes. Our Preferred Plan reduces our carbon footprint in excess of 20 percent over the planning period. By doing so, we will reduce our exposure to the costs of future carbon regulation. We believe this information provides an appropriate tool for considering future carbon regulation scenarios and attempts to incorporate the risk analysis required in the 2004 Resource Plan Order. Nonetheless, we believe the developments on CO<sub>2</sub> make our analysis an appropriate low, medium and high scenario and consider the needed resources to comply with the RES. Adding coal resources without sequestration would significantly add carbon and risk for our ratepayers.

### **Clean Air Interstate Rule**

In March 2005, the U.S. Environmental Protection Agency (“EPA”) issued the Clean Air Interstate Rule (“CAIR”) to further regulate sulfur dioxide SO<sub>2</sub> and NO<sub>x</sub> emissions. The objective of CAIR is to cap emissions of SO<sub>2</sub> and NO<sub>x</sub> in the eastern United States, which includes Minnesota. CAIR addresses the transportation of fine



particulates, ozone and emission precursors to nonattainment downwind states. CAIR has a two-phase compliance schedule, beginning in 2009 for NO<sub>x</sub> and 2010 for SO<sub>2</sub>, with a final compliance deadline in 2015 for both emissions. Under CAIR, each affected state will be allocated an emissions budget for SO<sub>2</sub> and NO<sub>x</sub> that will result in significant emission reductions. It forms the basis for a cap-and-trade program where state emission budgets or caps decline over time. States can choose to implement an emissions reduction program based on the EPA's proposed model or they can propose another method, which the EPA would need to approve.

### **SO<sub>2</sub> Analysis**

SO<sub>2</sub> allowances will continue to be needed for affected units under the Acid Rain Program ("ARP"). The CAIR SO<sub>2</sub> program will work in conjunction with the ARP and will require allowances from the same pool of allowances as the ARP. CAIR will require the use of allowances at a ratio of two allowances per ton of emissions for allowances allocated from 2010 through 2014, and 2.86 allowances per ton of emissions for allowances allocated for 2015 or later. Additionally, banked ARP allowances allocated for years before 2010 can be used under CAIR at a ratio of one allowance per ton of emissions.

We hold a bank of allowances because the number of allowances we receive from the EPA each year is greater than the number of tons of SO<sub>2</sub> our units emit. Since the ARP uses a cap and trade system, allowances can be sold. We have recently completed a preliminary analysis of allowance needs and concluded that we will have a surplus of SO<sub>2</sub> allowances even with the more stringent requirements of the CAIR program. SO<sub>2</sub> reductions from the MERP will also contribute to our bank of allowances. No additional changes are needed for compliance with the ARP or the CAIR SO<sub>2</sub> program.

We plan to complete a more detailed analysis and submit a proposal to the Commission in 2008 that details the number of allowances we believe we could sell over time without jeopardizing any operations, and a proposal for use of the proceeds

from such sales. History has shown that it is very difficult to predict the forward market price of emission allowances. This is primarily due to trading volume and the availability of banking. Trading volume is important because a low volume of trading (a “thin market” with few participants) can lead to increased price volatility, and at times vulnerability to strategic bidding and speculative price manipulation. Banking is important because the size of the SO<sub>2</sub> allowance bank that has been built up has a long-term effect on the price of emissions by keeping the price lower than it would be otherwise through increasing supply and market volumes, strengthening price competition. The decision to bank or sell credits in excess of immediate compliance needs depends largely on a company’s risk management strategy. As a result, we will value the allowances and the amount we will propose to sell closer to the filing date of our proposal.

### **NOx Analysis**

Under CAIR’s cap-and-trade structure, we can comply with NOx requirements through capital investments in emission controls or purchase of emission “allowances” from other utilities making reductions on their systems.

Based on a comparison of projected NOx emissions for CAIR-affected units with scheduled allocations of NOx allowances, we expect to have enough allowances to comply with CAIR after our current projects to lower NOx emissions are completed. Whether or not there is a shortfall depends on the actual emission rates achieved and the demand on generating units. For any residual shortfall, we will purchase allowances.

There are several projects that are planned or that have been implemented that will lower NOx emissions: the Allen S. King plant MERP (construction complete), High Bridge plant MERP (coal-fired boilers are shut down), Riverside plant MERP (coal-fired boilers 6 and 7 will be shut down in 2008 and boiler 8 will be shutdown in 2009), and the Sherco plant NOx reduction projects. The Sherco plant NOx reduction projects consist of installing low-NOx burners, dampers, monitoring equipment and

controls. Work was completed on Unit 1 in 2007 and on Unit 2 in 2006, and is scheduled for Unit 3 in 2008.

These approved NOx reduction projects plus the option to purchase allowances if needed comprise the Company's strategy for complying with the CAIR NOx program. Our current analysis shows that additional NOx reduction projects are not cost effective, especially when allowance purchases could cover any periodic shortfalls. We will continue to forecast emissions as the projects that will reduce NOx emissions are completed and emission rates can be verified. The cost of purchasing NOx allowances in the first phase of CAIR (2009-2014) are estimated at \$5 million.

### **Mercury Analysis**

Xcel Energy, recognizing that mercury is a pollutant of concern, has undertaken research to better understand our mercury emissions and control technologies. We use low sulfur coals from Montana and Wyoming that have relatively low mercury concentrations compared to coals from other parts of the country. Mercury is regulated by both the federal Clean Air Mercury Rule ("CAMR") and the Minnesota Mercury Emissions Reduction Act ("Mercury Act") legislation. A description of each is provided below.

#### *Clean Air Mercury Rule*

In March 2005, the EPA issued CAMR, which regulates mercury emissions from power plants for the first time. The CAMR uses a national cap-and-trade system, where compliance may be achieved by either adding mercury controls or purchasing allowances, or a combination of both. When fully implemented, CAMR will reduce utility emissions of mercury from 48 tons per year to 15 tons per year; a reduction of nearly 70 percent. It affects all coal- and oil-fired generating units across the country that are greater than 25 MW. Compliance with this rule occurs in two phases, with the first phase beginning in 2010 and the second phase in 2018. States will be allocated mercury allowances based on coal type and their baseline heat input relative to other

states. Each electric generating unit will be allocated mercury allowances based on its percentage of total coal heat input for the state. Similar to CAIR, states can choose to implement an emissions reduction program based on the EPA's proposed model program, or they can propose another method, which the EPA would need to approve. We currently estimate that we can comply with CAMR through capital investments in emission controls or purchase of emission allowances.

### *Minnesota Mercury Legislation*

On May 2, 2006, the Minnesota Legislature passed the Mercury Act, which provides a process for plans, implementation and cost recovery for utility efforts to reduce mercury emissions at certain power plants. The Mercury Act covers units at our A. S. King and Sherco generating facilities. Under the Mercury Act, we have installed and will maintain and operate continuous mercury emission monitoring systems. The information obtained will be used to establish a baseline from which to measure mercury emission reductions. Mercury emission reduction plans must be filed by utilities by Dec. 31, 2007 for dry scrubbed units such as Sherco Unit 3 and A.S. King and by Dec. 31, 2009 for wet scrubbed units such as Sherco Units 1 and 2. The Plans are required to indicate the technologies most likely to reduce emissions by 90 percent. Implementation of the plans is required by Dec. 31, 2009 for one of the dry scrubbed units, Dec. 31, 2010 for the remaining dry scrubbed unit and Dec. 31, 2014 for wet scrubbed units.

At the present time, we anticipate that sorbent injection using a form of chemically treated powdered carbon will be the most environmentally effective and cost-effective emissions control technology at the dry scrubbed units. Details of the available options and the analysis leading to a selection of specific mercury control projects for each unit will be filed with the Commission, Department, and Minnesota Pollution Control Agency pursuant to the Mercury Act requirements.

## CO<sub>2</sub> Sequestration Analysis

In addition to emissions trading, carbon capture and storage (“CCS”) offers the potential for contributing to the stabilization of atmospheric CO<sub>2</sub> concentrations. While the potential benefits of integrated gasification combined cycle (“IGCC”) and other technologies to support CCS are clear, there are significant infrastructure, regulatory, financial and liability issues that must be resolved before the sequestration of a significant percentage of the CO<sub>2</sub> emissions from a large energy project can become a commercially available, viable option.

“Geologic sequestration” refers to the disposal of CO<sub>2</sub> by injecting it at high pressure into suitable underground repositories. Several geological formations can accept and store CO<sub>2</sub> for extremely long time frames, according to research carried out to date. In some instances the CO<sub>2</sub> can be used to increase the flow of oil or gas fields, a technique known as enhanced oil recovery (“EOR”) that is employed by the petroleum industry in several parts of the world. Deep saline aquifers are another promising type of geologic formation for long term CO<sub>2</sub> sequestration.

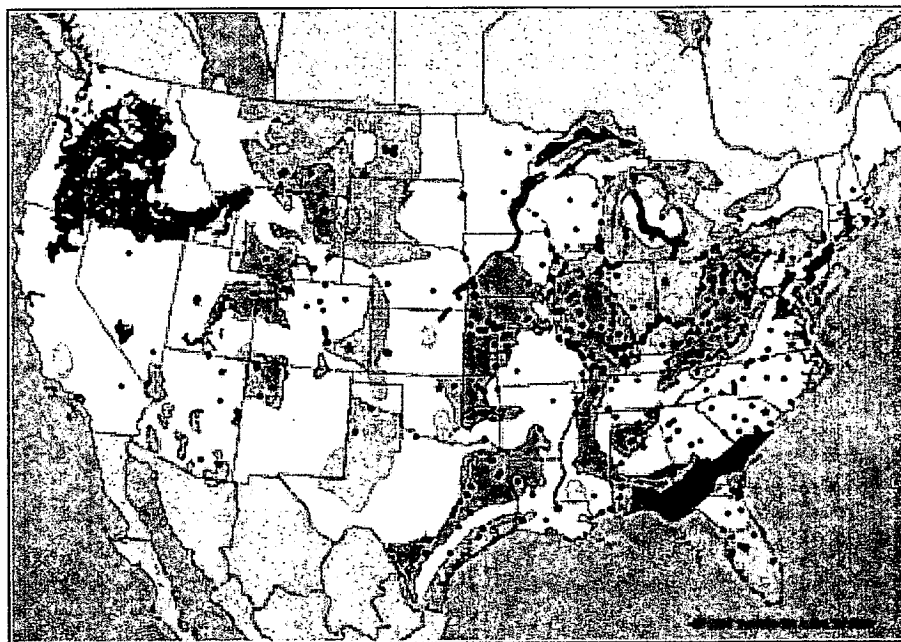
### *Geologic Sequestration Potential*

A recent document published by the Global Energy Technology Strategy Program (“GTSP”) on CCS suggests that there are not any viable CO<sub>2</sub> sequestration opportunities available in Minnesota.<sup>2</sup>

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<sup>2</sup> Carbon Dioxide Capture and Geologic Storage, Global Energy Technology Strategy Program, page 26.

**Figure 11-2**  
**Geological CO<sub>2</sub> Sequestration Potential in the US**



In 2007, the Minnesota Legislature commissioned the Minnesota Geological Survey to conduct a study of the potential capacity for geologic carbon sequestration in the Midcontinent Rift system in Minnesota. The study must be presented to the Legislature, by the Commissioner of Natural Resources no later than February 1, 2008. While the initial draft research findings from the Midcontinent Rift study appear to be promising, there is very little known about many aspects of the rift. Identifying the potential for geologic sequestration is only a very small first step. Exploration, mapping, and tests at the experimental and demonstration scale would be required to develop a better understanding of the geological sequestration opportunities for the Midcontinent Rift. This effort has not even begun and will take large-scale effort over a long period.

Therefore, any projects to capture CO<sub>2</sub> from a clean coal plant in Minnesota would presumably need to first complete a comprehensive study and possibly field demonstration of potential Minnesota geologic capabilities, or construct a pipeline to transport the CO<sub>2</sub> outside of Minnesota for geologic sequestration.

#### *CO<sub>2</sub> Pipeline Transport Potential*

CO<sub>2</sub> is transported in a supercritical fluid state to maximize piping efficiency. The closest connection point into an existing CO<sub>2</sub> pipeline to Minnesota is in Beulah, North Dakota, requiring the construction of hundreds of miles of new pipeline.

Recent research indicates that it may be preferable to locate a power facility that will capture and store CO<sub>2</sub> nearest to the load thereby reducing transmission losses and costs and pipe the CO<sub>2</sub> to the closest reservoir for sequestration. This suggests that a future power system with significant amounts of CCS will require a very large CO<sub>2</sub> pipeline infrastructure.<sup>3</sup> Today, only a modest network of CO<sub>2</sub> pipelines exists, carrying 49 Mt of CO<sub>2</sub> per year. Plausible capture rates of CO<sub>2</sub> from U.S. electric power production would produce a CO<sub>2</sub> stream of approximately 2,000 Mt of CO<sub>2</sub> per year. The CO<sub>2</sub> pipeline infrastructure necessary for sequestration of CO<sub>2</sub> emissions is likely to be on the same scale as the existing natural gas pipeline infrastructure.<sup>4</sup>

#### *Infrastructure Integration*

The large-scale integration of the CO<sub>2</sub> capture, transportation and storage components for a large-scale energy project has not been commercially demonstrated.

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<sup>3</sup> Adam Newcomer and Jay Apt, "Implications of generator siting for CO<sub>2</sub> pipeline infrastructure", Carnegie Mellon Electricity Industry Center Working Paper CEIC-07-11.

<sup>4</sup> CEIC-07-11.

The GTSP report suggests that large-scale CO<sub>2</sub> capture storage systems are probably still decades away.

### *Regulatory Issues*

There are a number of existing federal laws governing interstate pipeline activities, hazardous wastes, and underground injection wells and their controls, some of which may apply to CO<sub>2</sub> storage activities. At the state level, there are regulations governing capture, transport and injection that have been developed for the oil and gas industries and a wider range of injection activities. Site ownership issues also fall under the jurisdiction of state laws, which vary considerably from one state to another.

On October 11, 2007, EPA announced plans to develop regulations under the Safe Drinking Water Act to establish a clear path for commercial-scale geologic sequestration of CO<sub>2</sub>. EPA plans to propose regulatory changes to the Underground Injection Control program under the Safe Drinking Water Act in the summer of 2008.

### *Financial Issues*

As with other high cost and long-lived investments, financial issues play a large role in the development of a power plant. For new plants constructed with CCS, the costs of CO<sub>2</sub> disposal and transporting the CO<sub>2</sub> to the sequestration site will be site specific. These costs must be considered in the siting process and must be factored into the overall cost of the resource.

### *Liability Issues*

While the practice of injecting CO<sub>2</sub> into oil and gas fields to enhance oil recovery is not new, significant questions remain with respect to the ownership and liability for



the sequestered CO<sub>2</sub>. Potential legal issues include liability in the event of accident or leakage, and the property rights of landowners above geological storage sites.

The Department of Energy (“DOE”) site selection process for the FutureGen project considered the ownership and liability for CO<sub>2</sub> as a key criteria. In the July 21, 2006 submittal of the document from the FutureGen Alliance to DOE entitled “Results of Site Offer or Proposal Evaluation,” the Alliance indicates that, in part, its rationale for the selection of the two sites in Texas was attributed to the State of Texas’ agreement to assume title to and liability for the CO<sub>2</sub> produced from the project.

### **Conclusion**

Environmental regulation and uncertainty regarding future changes have a significant impact on our choice of future resource plans. In this Resource Plan, Xcel Energy is taking another major step toward a long-term vision. The Company is committed to making real progress on critical environmental issues including global climate change, mercury control, and other air emission reductions. Through a prudent, portfolio-based approach, we believe that the risk of future regulation can be effectively managed. Our conversion of coal plants to natural gas, renewable energy leadership, commitment to energy efficiency and conservation and continued upgrades to our most efficient coal and nuclear plants all contribute to this portfolio-based approach.

By taking immediate and proactive actions in this Resource Plan, Xcel Energy estimates that it can reduce CO<sub>2</sub> emissions by over 20% from 2005 levels by 2020. Going further will require additional investments, successful research and development and many other supportive steps by many parties. For the current Resource Plan period, this portfolio positions the Company and our customers to be ready for environmental regulations as they develop in various jurisdictions.

Our Five Year Action Plan includes the following:

- *We will complete our analysis of SO<sub>2</sub> allowances and submit a proposal to the Commission detailing the number of allowances we believe we could sell over time without jeopardizing operations and a plan for use of the proceeds from such sales.*
- *Explore other environmental opportunities, including Black Dog repowering.*
- *File our Mercury Plans.*
- *Select resources to meet the CO<sub>2</sub> reduction targets.*
- *File our Sherco Environmental/ Uprate Plan.*



## 10. Distributed Generation

- *We are exploring opportunities for the cost-effective deployment of distributed generation on our system, including its use in meeting some of our renewable requirements*
- *The expansion of distributed generation is likely to be based in large part on emerging technologies.*

Looking ahead, Xcel Energy is exploring how distributed generation (“DG”) can be effectively employed in our system. DG involves the use of small power sources located close to their point of use, as distinguished from more distant, and typically larger, central generation sources. Given their small size, DG in theory could be deployed throughout our delivery system. Current applications are limited and are usually powered by internal combustion engines fueled by landfill gas, diesel or fuel oil. However, other emerging technologies -- including fuel cells and gas turbines -- hold considerable promise but are not yet commercially viable.

As technologies evolve, DG may change how conventional electric services are provided to customers. All customer groups will potentially be affected. In the future, DG may vary from primary energy supply, possibly with a continuous supply of process heat or chilling, to peak control, back-up power or a continuously reliable power supply. Utility uses may include energy generation, ancillary services or deferral of delivery system expansion. Customers will benefit not merely from the added supply of electricity, but by the need for less utility investment in generation, transmission and distribution facilities.

The effective use of distributed technologies will require careful planning. The widespread use of distributed technologies will affect the ability of electric systems to provide services. In significant concentrations, distributed technologies will require the utility industry to change the way distribution systems are operated. A number of technical issues will need to be addressed, including system protection and coordination, and interconnection requirements, particularly for control and safe use of generators that operate in parallel with the grid. It will also be necessary to develop

new communications, information management, and controls systems to manage the reconfigured array of systems. The natural gas fuel delivery system could also be impacted by distributed generation, depending on the number of DG facilities powered by natural. If this occurs, additional capacity will need to be added to the delivery system. There also may be other institutional issues that surface with increased use of natural gas.

Depending on the fuel, duty cycle, conversion efficiency and location of the equipment, it may be possible to reduce emissions through the use of distributed technologies. Some technologies have low emissions since they are fueled by liquid or gaseous fuels even though their conversion efficiencies are moderate. Some have high efficiencies. Some serve both electric and heating/cooling requirements, resulting in efficient use of fuel and if located at the load, reduction in the losses involved in moving power across transmission and distribution wires, effectively increases the efficiency of the system.

New technologies are being developed, but they are generally not expected to be installed by many users until durability and operational costs are understood, and manufacturing volume is high enough to drive costs down. This process will probably take several years. Even then, new technologies may be too expensive for many applications. The costs to operate DG systems are likely to be pushed up because of the demand for similar technologies for low-emissions vehicles, and the use of DG in micro grids in overseas markets.

### **The Commission's Order to Study DG**

The Minnesota Legislature and the Minnesota Public Utilities Commission ("Commission") have each recognized both the potential for DG and the challenges presented by the effective use of distributed technologies. In 2005, the Legislature directed that the Commission "shall ensure that opportunities for the installation of distributed generation ... are considered" in the resource planning processes. Minn. Stat. §216B.2426. In 2006, the Commission responded when it ordered that

Xcel Energy shall commission a study by qualified experts to determine what a comprehensive distributed generation strategy would entail, including a technical evaluation of the potential and economics of adding significant distributed generation resources to the Xcel Energy system. July 28, 2006 Order Approving Xcel Energy's 2005-2019 Resource Plan.

Xcel Energy has embraced the Commission's order as an opportunity to study the potential applications of DG technologies. We have retained Summit Blue Consulting. In their study, Summit Blue Consulting will identify potential distributed technologies and customers, and seek to match specific technologies to specific customers. For example, a wind generator would not be a good application for a customer in an urban setting, but may be for a customer in a rural setting. The key assumptions for the study include:

- Ownership by either the Customer or the Company
- Calculation of avoided transmission and distribution costs
- Use of the following capacity factors:
  - Natural Gas – 85% capacity factor
  - Biomass-based technology – 80% load factor
  - Wind - 25% load factor, 13.5% of total wind capacity

The goal of the study will be to develop a recommended portfolio of customers and technologies that we can work from to promote installations and gain more experience with DG. We will also look for combined heat and power applications with industrial customers engaged in ethanol production and other agricultural processes.

We have set two milestone years similar for the study. For these milestone years, we will presume a level of DG is reached and include it in our future planning assumptions. The information is not included in this plan because this study work is underway and we do not yet have a sufficient basis for DG additions.

The study will involve the following steps:

- Strategist inputs for 2013 and 2020 based on updated fuel prices and capital costs and any other applicable DG assumptions.
- Review of existing DG programs throughout the United States. The review will identify the common factors of the successful programs and attempt to ascertain the transferability of these programs to Xcel Energy.
- A technical evaluation of DG measures and customer characteristics.
- By this date, we will have considered the economics of adding significant DG resources to the Xcel Energy system. The evaluation will involve use of the Strategist model. Benefits of DG for the grid (e.g. avoided capital costs and reduced operation costs) will be included. A Stakeholders' Meeting will be held during this timeframe as well to discuss our progress and preliminary results.
- Strategy recommendations are completed. This will include a discussion of existing obstacles to DG and how they might be overcome, as well as a comprehensive strategy to approach DG. We may also choose to hold a second stakeholders' meeting at this time.
- Draft Report Complete.
- Final Report Issued.

### **Legislative Studies of Distributed Generation/Dispersed Generation**

In 2007, the Legislature again expressed an interest in learning more about distributed and/or dispersed generation. Three separate inquiries into facets of distributed or dispersed generation will be undertaken. The legislative mandated studies are briefly described below.

A statewide study of dispersed generation potential was initiated as part of the Next Generation Energy Act. This study requires all public utilities, coops, municipal utilities, etc. subject to the RES to participate in a study to explore the potential for 600 MW of dispersed generation in each of two study phases. Dispersed generation for purposes of this study is an "eligible energy technology" as defined under the RES

of between ten and forty megawatts. The projects must be distributed statewide throughout five electric transmission planning zones. A detailed list of criteria to be evaluated are set forth in law. The Commissioner of Commerce must submit a report containing findings and recommendations of the first phase study to the Commission no later than June 15, 2008. The second phase study is to be submitted by the Commissioner to the Commission no later than September 15, 2009. (Chapter 136, Article 4, section 17)

The reliability administrator was charged by the legislature to consult with interested stakeholders and “(2) assess the potential for and barriers to interconnecting dispersed generation projects to locations on the electric grid where a generator interconnection would not be subject to the interconnection rules of the Federal Energy Regulatory Commission or the Midwest Independent System Operator.” The legislative charge states this task does not require technical or engineering analyses and must be reported to the energy policy chairs of the House and Senate by February 15, 2008. (Chapter 136, Article 4, section 21)

The Commissioner of Commerce was required to convene a broad group of interested stakeholders to evaluate the feasibility and potential for the interconnection and parallel operation of off-site renewable distributed generation in a manner consistent with existing Minnesota laws governing the franchise service territory of electric utilities. This evaluation is to be completed by February 1, 2008 and forwarded to the energy committees of the House and Senate. (Chapter 57, Article 2, section 33)

## **Conclusion**

Historically, distributed generation technologies have been considered more expensive than large central station generation. However, they may offer system benefits in terms of additional customer reliability and a deferral of transmission and distribution construction. Accordingly, we have included the following in our five-year Action Plan:



- *Ensure the current DG study in progress is completed in a timely manner and results are shared with stakeholders.*
- *Identify opportunities to install DG demonstration projects .*
- *Continue to explore opportunities to add DG on our system where it is cost-effective.*
- *Undertake the additional studies required under the 2007 energy legislation.*

**9) Demand Side  
Management**

## 9. Demand-Side Management

- *In this Resource Plan, Xcel Energy proposes to increase our conservation and load management goals and outlines our assessment and transition plan toward the aggressive new goals set forth in the Next Generation Energy Act of 1.5% of retail sales.*
- *In total, we expect to reduce energy consumption by over 5,100 GWhs and demand by over 1,700 MW during the planning period.*
- *These goals represent a direct increase of 30% in energy savings and 48% in demand savings over our 2004 Resource Plan goals.*

### Historical Performance

From 1990 to 2006, Xcel Energy's has engaged in significant demand-side management ("DSM") efforts that have saved over 4,100 GWh of energy and 2,100 MW of demand – avoiding the equivalent of eight 250 MW generating facilities. We are proud of these accomplishments, which we believe reflect both our commitment and the commitment of the Commission and Department of Commerce to maximize cost-effective programs under the statutory structure then in place.

These DSM programs targeted projects that were easiest to achieve, most cost-effective savings first. Typically each successive increment of demand-side management becomes more challenging to acquire and thus building upon this historical savings trend requires pursuing programs that are more difficult and less cost-effective.

That said, we regard conservation, energy efficiency and demand-side management to be one of the most cost-effective resource options available. Our challenge is to develop programs will need to be more creative and take advantage of technological breakthroughs as we pursue successive increments of DSM and harder-to-reach opportunities.

### **The Next Generation Act of 2007**

The Next Generation Act of 2007 ("Act") presents a fundamental change of the statutory structure for DSM in Minnesota. The Act sets an aggressive state policy to significantly increase DSM in our energy picture and shifts from a historical spending based statutory structure to a percentage savings of retail sales based structure. Although the structure change has practical implications for programs and implementation, substantively the Act pushes Minnesota from being a state with strong support for DSM to a leadership role, similar to the role we have with renewable energy.

As the Minnesota public utility with the most comprehensive energy conservation program, Xcel Energy played a key role in helping to develop the ambitious new energy conservation policy contained in the Act. The Act seeks to achieve a statewide energy conservation goal of 1.5% of retail sales and recognizes that both direct and indirect energy conservation programs can help achieve this goal. Direct programs are traditional Conservation Improvement Programs ("CIP"). Indirect and other type programs are savings from electric utility infrastructure improvements and waste heat recovery, energy codes, appliance standards, and "market transformation" programs directed at changing consumer behavior and creating lasting market effects. For Xcel Energy a 1.5% savings of retail sales is an effective doubling of the savings set forth in the 2004 resource plan and already aggressive DSM programs.

While we support the overall goal, accomplishing these additional savings is not as simple as merely doubling our investment in DSM programs to achieve double the savings. Meeting this new goal will require a significant increase in resources, including staff, program infrastructure and program development as well as new ideas, technology and collaborative statewide efforts on issues such as energy codes and market transformation programs. At this time, all of the tools needed to meet the 1.5% target are not in place, but will require cooperative efforts of stakeholders to achieve a combination of direct and indirect savings that commit to try to meet this goal.

This shift provides opportunities, but will also necessitate serious work and effort to provide these enhanced energy savings. As a result, in this Resource Plan, we have not assumed that the 1.5% savings is simply achieved. Instead, we have attempted to assess how we will approach achieving this new goal over the planning period and we have assumed a graduated transition to higher DSM goals.

In the following sections, we set forth our understanding of how we will present our DSM and conservation plans to the Department pursuant to the Act and how we will attempt to use both direct and indirect programs to achieve savings. We believe implementation of these new energy saving goals will require development of programs and of measurements that are not yet well defined. We will work with the Department and other stakeholders to help provide definition, but given that we are at the beginning of this process, we have recognized the uncertainty in our analysis to help ensure a realistic resource plan. As with other issues, we believe this analysis will be refined and revisited both through the course of this proceeding as well as in future resource plans.

### **Implementation of the Next Generation Energy Act**

Below we set forth our understanding of the process required by the Act. We discuss how we anticipate proceeding given the information and program experience we currently have.

The statute sets forth that a utility may propose that the Commissioner may reduce energy savings required from Conservation Improvement Plans from the 1.5% level based on certain factors, but sets a minimum amount of savings from “direct” programs at 1.0%. These factors include historical conservation investment experience, customer class makeup, load growth, a conservation potential study or “other factors the commissioner determines warrants an adjustment”.

The Act also recognizes that a utility may include in its plan “indirect & other” projects to provide energy savings above the 1.0% required for direct conservation programs. All utilities are to have plans in place by 2010. Because Xcel Energy is

currently operating under its triennial plan, we will engage with the Department and other stakeholders in helping to provide definition regarding new DSM requirements, efforts and measurement.

We anticipate requesting in our first plan that the Commissioner recognize we will need to pursue a graduated, steady progression that transitions us successfully toward enhanced conservation improvement programs. We want to develop sustainable increases in DSM that avoid unreasonable costs for our customers. For instance, significantly increasing rebate levels may provide a jump in conservation that would not be sustainable long-term and could even be counterproductive. To achieve significant, sustainable increases in DSM, we also need to take actions such as developing a larger DSM sales force with substantial electrical and mechanical engineering experience, train these engineers and representatives about our programs and engage them in working with our customers to achieve the most effective DSM changes that may not generate savings for several years. This transition is likely to be most effectively developed over multiple years, so that we can effectively develop program distribution channels.

We look forward to engaging in these efforts, but also want to work with other stakeholders in the process to maximize cost effectiveness. Thus, we expect to request the Commissioner allow an adjustment down from a 1.5% savings level for direct conservation improvement programs to a 1.1% savings level based upon the factors allowed in the statute. Additionally, we expect that we would seek to add to this, a savings level for indirect programs. Our analysis to support such an adjustment is provided below.

Finally, we have also attempted to assess various indicative cost scenarios for higher amounts of direct conservation improvement programs. We do not view the issue to be whether we spend the amounts necessary to achieve 1.5% of direct savings through conservation improvement programs. Rather the issue is the need to recognize that we are at the beginning of a substantial shift in focus on DSM and significant work needs to be undertaken to ensure we can achieve sustained,

dependable energy savings from a resource planning perspective. Further, we expect that the increased investment in DSM as a resource for our state will provide exciting opportunities to grow and lead in the effective and efficient use of our energy resources.

### **Request to the Commissioner for Adjustment of Energy Savings Goal**

As described below, we believe the structure of Next Generation Energy Act recognized that we are entering a period of transition necessary to achieve the ambitious energy savings goals. Specifically, the Commissioner of the Department is given a key role in reviewing utility requests to modify the savings level down from 1.5% but not lower than 1.0%. This recognizes utilities will start in different places with regard to these goals given their historical experiences. It also provides a mechanism to ensure long-term, sustainable and dependable energy savings. From a program and customer standpoint, new and modified programs need to be carefully developed to avoid creating spikes and valleys that could result from improperly priced rebates or other offerings.

The Department's experience with program implementation places it in a unique position to help in this development. This will provide the stability necessary for strong, solid growth in energy savings from DSM. Further, the Act recognizes that the Department and others can work collaboratively to achieve some of the desired savings through indirect measures that may represent the most cost-effective approach for some programs. Thus, the Commissioner is granted discretion through the Act to modify a utility's energy savings goals to the extent that it believes a lower goal would be more achievable, based on a variety of factors such as conservation potential study results, historical investment and performance, customer makeup, and load growth.

Xcel Energy considered these factors and constraints when determining an achievable goal that will deliver reliable energy savings to help meet the resource needs outlined in this Resource Plan. We have relied heavily on our comprehensive conservation potential study to inform our goal setting. To develop strategies for meeting the

proposed goal, we will be using a recently completed program review by the American Council for an Energy Efficient Economy ("ACEEE") and internal analysis to identify gaps and new technology opportunities. This information will form the basis of our growth plan, currently being developed in response to the requirements of the Act. We are also working with the Department and other stakeholders to identify strategies from "indirect and other" programs and initiatives to contribute savings towards the goal. However, it will take additional time and effort before further definition emerges on the implementation of the "indirect and other" programs and initiatives.

Our goal through direct DSM programs is a "stretch" plan representing the limits of what our potential study concludes is achievable. For perspective, our current CIP Triennial plan, which is one of the most successful in the country, is currently at 0.8% reduction of annual retail sales. Though ambitious, we believe the proposed 1.1% goal is achievable and as a result, we have included this level of energy conservation in the sales forecast and our modeling scenarios.

We are also committed to developing plans directed at the statewide savings goal. As mentioned earlier, the plan for achieving the remaining savings will be developed as further clarification and consensus emerges on the "indirect and other" conservation mechanisms that may contribute savings to the goal. Our work with the Department and other stakeholders will define the "indirect and other" energy conservation mechanisms and make recommendations to the Commission and the Legislature on how best to achieve them. For instance, the Act provides for several state-wide analyses and reports providing an inventory of cost-effective energy conservation programs, techniques, and technologies to guide utilities in developing their programs.

The Commissioner will help public buildings improve energy efficiency, develop programs to certify the efficiency of buildings, work on low income programs, and work to achieve energy savings for state government operations. The Commission will be looking at decoupling pilots that could change the cost signal to customers and change utilities incentives in promoting energy efficiency and conservation. The Act



includes provisions for municipalities to improve their energy efficiency. All of these actions are designed to change both the way that electrical energy is consumed in Minnesota. These programs, while not necessarily driven by utility programs, may result in changes in energy use and if significant may result in changes that are captured in future resource plans.

### **Detailed Assessment of Energy Savings and Goal Selection**

Our proposed DSM goal for direct DSM programs will result in over 5,100 GWhs of energy savings and over 1,700 MWs of demand reductions during the 2008 through 2022 planning period. This goal represents a 30% increase in energy savings and a 48% increase in demand savings over the levels approved by the Commission in our 2004 Resource Plan. This goal is also approximately 35% higher than the average GWh savings goals approved in our current Triennial CIP.

For comparison purposes, Table 9-1 shows our current goals from the 2004 Resource Plan, as *Ordered* in Docket No E-002-/RP-04-1752, and our proposed 1.1% goal for the period 2005 through 2022.

**Table 9-1**  
**Current and Proposed DSM Goals**  
**At the Generator**

| Year                    | 2005-2019<br>Plan             | 2005-2019<br>Plan              | 1.1%<br>Scenario  | 1.1%<br>Scenario   | 1.1%<br>Scenario |
|-------------------------|-------------------------------|--------------------------------|-------------------|--------------------|------------------|
|                         | Approved<br>Demand<br>Goal MW | Approved<br>Energy<br>Goal GWh | Demand<br>Goal MW | Energy Goal<br>GWh | Proposed Budget  |
| 2005                    | 77                            | 266                            |                   |                    |                  |
| 2006                    | 79                            | 231                            |                   |                    |                  |
| 2007                    | 116                           | 330                            |                   |                    |                  |
| 2008                    | 93                            | 294                            | 91                | 260                | \$ 47,002,224    |
| 2009                    | 84                            | 276                            | 93                | 264                | \$ 48,350,183    |
| 2010                    | 72                            | 264                            | 119               | 328                | \$ 91,535,420    |
| 2011                    | 65                            | 251                            | 123               | 333                | \$ 95,216,191    |
| 2012                    | 69                            | 252                            | 119               | 338                | \$ 98,944,600    |
| 2013                    | 68                            | 248                            | 118               | 343                | \$ 102,656,754   |
| 2014                    | 72                            | 253                            | 111               | 347                | \$ 106,362,703   |
| 2015                    | 73                            | 254                            | 98                | 351                | \$ 110,115,550   |
| 2016                    | 74                            | 254                            | 104               | 355                | \$ 113,957,721   |
| 2017                    | 73                            | 256                            | 109               | 359                | \$ 117,955,764   |
| 2018                    | 72                            | 254                            | 114               | 363                | \$ 122,121,965   |
| 2019                    | 70                            | 251                            | 116               | 367                | \$ 126,482,964   |
| 2020                    |                               |                                | 131               | 372                | \$ 131,009,189   |
| 2021                    |                               |                                | 132               | 376                | \$ 135,700,102   |
| 2022                    |                               |                                | 134               | 380                | \$ 140,550,584   |
| 2005-2019<br>Total      | 1,157                         | 3,934                          |                   |                    |                  |
| Avg Annual<br>2005-2019 | 77                            | 262                            |                   |                    |                  |
| 2008-2022<br>Total      |                               |                                | 1,711             | 5,136              |                  |
| Avg Annual<br>2008-2022 |                               |                                | 114               | 342                |                  |

\*2007-2009 goals were based on approved Triennial Plan Goals Docket No. E,G002/CIP-06-80.

Table 9-2 below shows our historical approved energy goals and achieved savings as a percent of retail sales. The table also demonstrates how we have consistently exceeded our approved goals for energy and demand savings in each of the past six years. The achieved results represent our best efforts at capturing savings through our programs.

| <b>Table 9-2</b><br><b>Achieved and Projected Conservation and Load Management</b><br><b>2001 to 2006</b> |                                |                          |                                 |                           |                                                   |
|-----------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|---------------------------------|---------------------------|---------------------------------------------------|
| Year                                                                                                      | Approved Demand Goals (Gen MW) | Achieved Demand (Gen MW) | Approved Energy Goals (Gen GWh) | Achieved Energy (Gen GWh) | Achieved Energy as % of Retail Sales <sup>1</sup> |
| 2001 <sup>2</sup>                                                                                         | 64                             | 139                      | 177                             | 254                       | 0.87%                                             |
| 2002                                                                                                      | 96                             | 121                      | 186                             | 267                       | 0.90%                                             |
| 2003 <sup>3</sup>                                                                                         | 85                             | 111                      | 209                             | 245                       | 0.82%                                             |
| 2004                                                                                                      | 95                             | 128                      | 208                             | 265                       | 0.89%                                             |
| 2005 <sup>4</sup>                                                                                         | 91                             | 113                      | 204                             | 263                       | 0.85%                                             |
| 2006                                                                                                      | 89                             | 103                      | 205                             | 256                       | 0.82%                                             |

To calculate our energy savings goals as a percent of retail sales, we used the most recent three years of weather-normalized retail sales forecast with the following assumptions:

- We excluded anticipated exempt customer retail sales, using the 2006 actual sales for these customers as a forecast of all future years; and
- We assumed that the retail sales on which the goal will be set are based on the three-years prior to each Triennial filing and that the sales goal will be constant throughout each Triennial period.

<sup>1</sup> Retail sales are adjusted to exclude estimated sales to CIP Exempt Customers.

<sup>2</sup> Data from the approved 2001/2002 Biennial Plan Docket No. E,G002/CIP-00-1457.

<sup>3</sup> Data from the approved 2003/2004 Biennial Plan Docket No. E,G002/CIP-02-854.

<sup>4</sup> Data from the approved 2005/2006 Biennial Plan Docket No. E,G002/CIP-04-820.

For this Resource Plan, we modeled scenarios at 1.1% and 1.3% of retail sales. Upon careful consideration of the challenges and costs associated with meeting either goal, we selected the 1.1% energy savings goal. Consistent with previous approved resource plan goals, we ask the Commission to approve our proposed goals for the term of the planning period, and not on an annual basis. The Company will file CIP plans every three years with more detailed annual goals and budgets, which may be approved or modified by the Department. As we transition to achieving these higher energy savings goal, future resource plans will provide an opportunity for review and potential increase, but also ensure we are achieving sustained energy savings from DSM.

We have based our goals on information from our current and updated Minnesota DSM Potential Study and historical experience and performance. Other considerations include internal and external analysis on how our programs can be enhanced and expanded to overcome existing barriers, as well as constraints introduced by the legislation, such as new measurement and verification requirements, changes to codes and standards, and cost effectiveness. The following sections detail our basis for setting the proposed goals at the 1.1% of retail sales level, as well as plans for updating and meeting our goals.

#### *Potential Study*

Our goal setting analysis in this plan relied heavily on a DSM Potential Study completed in 2004 with updates in 2006 and 2007. The study identified the areas and measures where the largest DSM potential exists in our MN service territory.

#### *Specifically, the 2004 study included*

- An estimate of saturations of DSM measures that qualify for our DSM programs in MN, collected primarily through on-site survey methods;
- An estimate of the remaining DSM potential for the Company's residential, commercial & industrial ("C&I") customers. As part of this assessment, the study estimated the potential for building recommissioning for the first time; and

- The main barriers that prevent customers from participating in DSM programs, including customer awareness levels of the Company's energy conservation and load management programs.

*Specifically, the 2006 update included:*

- A review and update of DSM measures that may have high impacts on peak demand;
- Updates of new housing stock growth and new C&I floorspace growth; and
- Modifications to high efficiency auxiliary motors and the addition of electronically commuted evaporator fan motors.

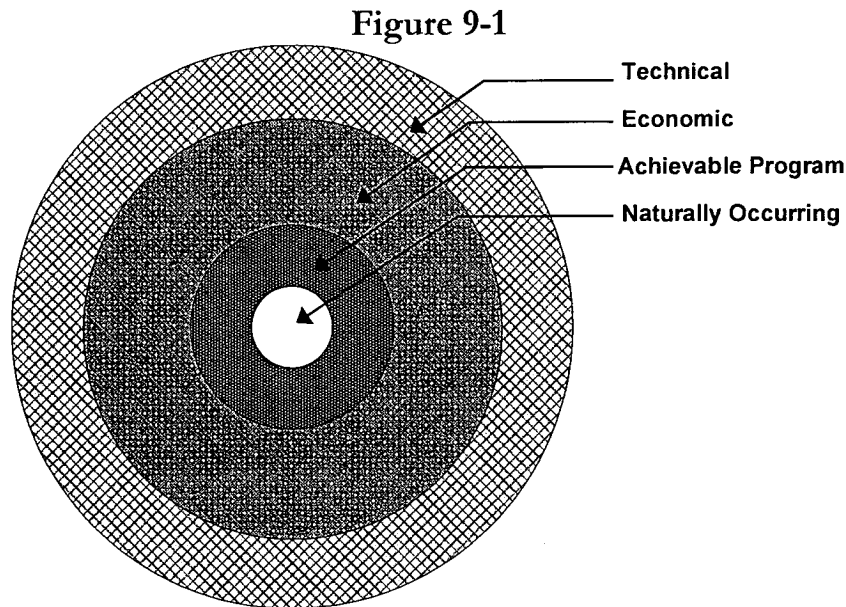
*Specifically, the 2007 update included:*

- The adjustment of market potentials to match more recent program budgets and achievements from our 2005-2006 Programs;
- "Best-Practice" results of Residential Programs, such as Lighting, New Construction, Appliances & Appliance Recycling and A/C Tune-ups; and
- Updated technical assumptions from our Triennial Plan, including those from new programs.

### *DSM Potential Study Results*

Our latest market potential study results confirmed that the 1.1% of retail sales savings goal aligns very closely with the maximum achievable potential in MN. DSM potential is most easily described in terms of three tiers: technical, economic, and achievable potential. Technical potential represents the amount of DSM available assuming that all technically-feasible electricity energy efficiency measures are immediately installed in year one. Economic Potential is a snapshot in time that assumes that all measures that pass the Total Resource Cost ("TRC") test are instantly implemented. Essentially, it is the amount of cost-effective electric DSM available as a resource within the Company's MN service territory. It represents the subset of technical potential that is cost-effective to install when compared to supply-side alternatives. Achievable potential represents the amount of savings that would occur in response to current program funding and incentive levels. Economic potential is

usually far greater than achievable potential. Figure 9-1 gives an illustrative example of the tiers of DSM potential.



The DSM Market Potential Study determines potential achievement levels for several “incentive” scenarios. These scenarios are at various multiples of our current levels of incentives (or rebates) that are provided to customers for purchasing and installing efficient measures. Currently, the Company’s overall rebate level equals about 25% of the incremental cost of the measure. Our analysis shows that in order to achieve the 1.1% savings goal, we will likely need to increase our rebate levels to more than 200% of our current levels, or 50% of the incremental cost of the measure. In addition, the 1.1% savings level is estimated to achieve up to 50% of the economic potential for DSM in our service territory, which we believe is very close to the maximum achievable potential.

Table 9-3 below illustrates where the percent of sales goals fall relative to the incentive scenario targets from our potential study. In reviewing the targets to determine which scenario would determine our options, it is evident that even the highest 300% incentive scenario will not support the economic potential of the 1.3%, but the 200%

incentive scenario at 48% of economic potential, most closely aligns with the 1.1% retail sales goal scenario.

Table 9-3

|                            | Scenarios (% of Historical Spend) |                      |             |             |                      |
|----------------------------|-----------------------------------|----------------------|-------------|-------------|----------------------|
|                            |                                   | 1.1% of Retail Sales |             |             | 1.3% of Retail Sales |
| <b>2007-2021</b>           | <b>200%</b>                       |                      | <b>250%</b> | <b>300%</b> |                      |
| <b>Energy Efficiency</b>   |                                   |                      |             |             |                      |
| Incremental GWh            | 4,711                             | 4,993                | 5,088       | 5,221       | 5,840                |
| Total Costs (\$M)          | \$1,862.4 M                       | \$1,492.9M           | \$2,319.3 M | \$2,498.0 M | \$2,216.8M           |
| Average Annual Costs (\$M) | \$124.2 M                         | \$99.5M              | \$154.6 M   | \$166.5 M   | \$147.8M             |
| \$/kWh                     | \$ 0.40                           | \$0.30               | \$ 0.46     | \$ 0.48     | \$0.38               |
| % of Economic Potential    | 48%                               | 50%                  | 51%         | 53%         | 59%                  |

\* All costs are nominal dollars.

We believe the targeted goal of 50% of economic potential is a very aggressive goal. We worked with a consultant to compile data on other utility market potential studies throughout the Country to review what levels of economic potential are considered achievable. According to the study results, the 1.3% of retail sales savings goal requiring an achievement of 59% of economic potential is significantly higher than the national average.

There are a number of reasons why achievable potential is such a small subset of economic potential. First, achieving savings of 100% of economic potential assumes instantaneous adoption of all economically viable measures, even if the customer's standard efficiency equipment is not at the end of its useful life. In addition, there are many measures that, while it may be cost-effective to replace with a more efficient option, may not need to be replaced during the planning horizon. For example, if a chiller has an effective useful life of 18 years, not all chillers will be replaced during our 15-year planning period. Even if 100% of the chillers that reach the end of their useful life were replaced with high efficiency chillers during the 15-year forecast horizon, we would still not achieve the entire economic potential for chillers.

It is also widely recognized that significant market barriers exist that limit the amount of energy efficiency implemented in the market, which reduces the amount of economic potential achieved. A commonly-cited and frequently encountered market barrier is the split incentive facing landlords and tenants in rental property, where the landlord is reluctant to invest in efficiency that delivers savings to the tenant and the tenant is reluctant to invest in someone else's property. Additionally, there will always be customers who are either unable or unwilling to pay the additional upfront costs in order to achieve the savings that will come later and will not install measures even at rebates that equal 100% of the incremental costs. In addition, economic potential includes potential savings for customers who would install the measures even in the absence of utility-sponsored DSM.

While the discussion above demonstrates that this plan is at the limit of achievable "direct" energy conservation savings, Xcel Energy is committed to work with the Department and other stakeholders to further define and implement the mechanisms for the "indirect and other" energy savings included in the Act.

### **Other Energy Savings Opportunities & Challenges**

Xcel Energy considers the Act a long-term commitment. In order to meet our 1.1% savings goal and expand opportunities in the future, Xcel Energy is committed to continually review our operational strategies to find new and innovative energy savings opportunities. We are currently developing a growth plan to help us meet Minnesota's new energy efficiency requirements. At this stage, we are still working to develop and complete this plan, but we expect most of the energy savings will build upon our most successful business programs such as Cooling, Motors, Lighting and programs that are process driven or more customer service oriented. Our DSM group is currently analyzing every existing program for gaps and opportunities for growth as well as reviewing new and emerging technologies that may be on the planning horizon, such as certain solar or LED applications. We have also commissioned ACEEE to review our programs and provide recommendations on improvements and enhancements. Additionally, we intend to use available resources to move the market faster through the following:

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- Increasing rebate levels,
- Increasing residential customer awareness through consumer education,
- Acquiring additional trained and knowledgeable staff,
- Providing greater analysis,
- Increasing direct project management,
- Increasing our service representative levels, and
- Working with the DOC and stakeholders to develop and quantify the remainder of the statewide goal.

A brief review of some of the “indirect and other” energy conservation opportunities identified in the Act follows.

*Recovery of Electric Utility Infrastructure Costs (“EUIC”)*

The Act included a provision for cost recovery of electric utility infrastructure (“EUI”) improvements. EUIC refers to costs for electric utility infrastructure projects that were not included in the electric utility’s rate base in its most recent general rate case. All cost recovery would come from a separate rate rider and count towards the utility’s mandated goals.

The Company has initiated a project team to identify the potential for energy savings from EUI projects and develop a process to identify, analyze, track and file potential projects. Given the currently available information, our preliminary evaluation of these opportunities has identified potential EUI projects that would save approximately 0.1% of retail sales. The most promising project targets line losses and is estimated to annually save approximately 0.08% of retail sales over ten years. Other projects may be able to save the equivalent of 0.005-0.03% of retail sales over a shorter time horizon, depending on the level of savings possible from transmission projects and projects at Company buildings. We are continuing to explore and analyze this source of energy efficiency savings.

### *Rate Design*

Part of the statewide energy conservation goal can be met through rate design. We currently offer three rate design programs that are eligible for cost recovery through CIP: Saver's Switch Business<sup>®</sup>, Saver's Switch Residential<sup>®</sup> and Business Peak Controlled Rates. We will also explore whether additional savings opportunities from rate design options such as time of day rates.

### *Market Transformation Programs*

We can also meet part of the goal through market transformation programs. Market Transformation (MT) programs are defined as, "Strategic interventions designed to reduce market barriers and effect positive lasting changes in the market for energy-efficient goods and services, such that they are produced, recommended, and purchased in increasing quantity."<sup>5</sup> MT programs may have direct or indirect impacts. Common MT activities or program elements include:

- Incentives, including upstream incentives or buy-downs,
- Training and certification, particularly of service technicians and other building professionals,
- Consumer education,
- Product labeling, and
- Codes and standards.

Although it is widely recognized that MT programs influence energy savings, there is currently no standard protocol for estimating savings from these indirect impact programs, such as consumer education or training programs.

Xcel Energy is committed to working with stakeholders and the Department to develop a consistent sound approach for determining savings from these indirect programs, so as to apply those savings toward our new requirements.

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<sup>5</sup> <http://www.aceee.org/pubs/u994.htm>

### *Measurement & Verification*

One potentially significant challenge to implementing the new goals is the measurement & verification (“M&V”) component of the Act. The purpose of M&V is to determine actual energy savings per project or measure. The MN DOC has opened a docket and has recently formed workgroups to discuss appropriate methodologies for M&V. Changes in how M&V is performed can impact both our energy savings levels and the future for potential savings. For example, if there is a revision regarding the method for predicting the level of savings from free-riders or free-drivers, there could be either a reduction or an increase in the level of savings (depending on the methodology changes). We intend to work with the Department to ensure that the M&V methodologies accurately estimate energy savings and appropriately and accurately capture and reflect the achieved savings through both direct and indirect measures.

### *Code Changes and Appliance Standards*

Part of the statewide energy conservation goal can be met through crediting utilities for savings as a result of code changes and improved appliance standards. Promoting more aggressive codes and appliance standards is an opportunity for achieving greater efficiency savings for the state. As with other indirect programs, the challenge will be in finding methods that will accurately measure the energy savings that come from state-enforced codes and standards changes and developing mechanisms to reflect these savings in the respective utility service territories. Also, like other indirect programs, increased appliance efficiency standards can shift savings from direct programs, reducing the achievable potential for a utility. As we better identify the savings opportunities associated with this measure, we must also adjust the savings available to direct programs to account for this shift. We anticipate and look forward to working with the Department and stakeholders to find ways of measuring these energy savings and reflecting the savings consistent with the mandated goals.

### **Decoupling**

Decoupling is a regulatory tool that, if properly designed, can reduce a utility’s disincentive to promote DSM. It accomplishes this by severing the relationship

between utility revenues and actual sales. Currently, utilities collect most of their revenues on volumetric charges, so that the more energy sold, the higher the revenues. This is considered a disincentive to promoting energy efficiency, because revenue is lost for each MWH that is not sold. A properly designed decoupling program will ensure that the utility collects its revenue requirement regardless of how much (or how little) energy its customers use. As a result, the utility can promote DSM programs without harming its profitability. Under the Next Generation Energy Act of 2007, the Commission is directed to allow one or more utilities to participate in a pilot program to assess the merits of decoupling. If a utility intends to implement a decoupling program, it must submit a plan to the Commission.

At this time, Xcel Energy does not plan to submit a plan for the decoupling of its electric revenues from actual sales. We have not seen significant changes in residential customer usage that would appear to lend itself favorably to decoupling – mostly due to the changing mix of appliances. While customers continue to save energy, customers also continue to add more energy using equipment. For example, more customers have multiple computers and electronic equipment that needs recharging. Some new electronic equipment actually uses more energy than historic counterparts (for example, plasma television sets) and most new appliances have some form of continuous use built in, whether to power clocks or to maintain “fast start up” capability. Thus, we do not see a significant enough change in usage to merit pursuing decoupling.

While market dynamics suggest implementation of decoupling in the electric sector might not be feasible at the present time, the natural gas distribution business is a much more likely prospect for successful implementation of a pilot decoupling program. Due to the success of energy efficiency programs in our gas distribution business, Xcel Energy is seeing a decline in usage and an accompanying loss of fixed cost recovery in the residential and small commercial natural gas market. These factors have led Xcel Energy to considering proposing a decoupling program in the residential and small commercial natural gas market.

## Conclusion

Minnesota has set ambitious energy saving goals for the state. We have carefully considered these goals in this Resource Plan, and incorporated a goal of 5,136 GWH of energy savings and 1,711 MW of demand savings through 2022. This is 30% higher than was approved in our last resource plan and represents a reduction of approximately 1.1% of retail energy sales. Our intent is to reflect a transition toward higher energy savings that will be sustainable and dependable. We have attempted to reflect in this Plan that Xcel Energy and other stakeholders will undertake significant effort, working with the Department and Commission to ensure successful, long-term energy savings are achieved. A 1.1% energy savings goal also provides a hedge in the resource planning process but future processes will provide the opportunity to incorporate higher levels of success, for instance by pushing out acquisition of peaking or intermediate resources in the event greater levels of energy savings are achieved.

We look forward to working with the Department and stakeholders over the next year to identify areas where additional energy savings can be achieved through indirect measures, allowing the state to achieve its overall objective of 1.5% savings of retail sales. Key to these efforts will be establishing methods to measure and verify the energy savings from indirect and other programs, and to assure that savings are appropriately credited to the utility service territories in which they occur.

Therefore, our Action Plan includes the following related to DSM:

- *Significantly increase the DSM goals to meet legislative requirements.* To date, we have been successful in meeting the goals established in previous Resource Plans; however, we believe that it will be more challenging to meet the new legislative goals. This Plan presents our assessment of economic potential on our system, consistent with the statute. Based on our evaluation, we propose to achieve 1.1% annual savings, and will continue to explore means of expanding this goal in the future through both expanded customer programs and system infrastructure investments.

## **8) Nuclear Generation**

## 8. Nuclear Generation

- *Monticello and Prairie Island are essential resources, especially given the need to reduce carbon emissions.*
- *Monticello has received the state and federal approvals necessary for it to continue operation until 2030.*
- *Extending the life of Prairie Island will reduce costs and air emissions.*
- *Customers will benefit from implementing extended power uprates at Monticello and Prairie Island through reduced costs and air emissions.*

### Overview

The Monticello and Prairie Island nuclear power plants play a critical role in meeting our customers' needs in a cost-effective manner without producing harmful air emissions. Today, the two plants represent approximately 15% of the production capacity used to meet electrical demand and provide nearly 28% of the energy delivered to our customers.

The economic and environmental benefits of continuing to operate nuclear power plants have increased in recent years, especially with the growing desire to reduce carbon emissions. Since the first license renewal application was filed in 1998 and approved in 2000, the Nuclear Regulatory Commission ("NRC") has renewed the operating licenses for 48 of the 104 currently operating nuclear power plants. In 43 of the remaining 56 operating nuclear plants, a renewal application is either pending (14 cases) or anticipated to be filed (29 plus cases).<sup>1</sup> In a matter of a few years, it is likely that more than 90 of the 104 currently operating nuclear plants will have been re-licensed by the NRC.

In our 2004 Resource Plan, we identified life extension and extended power uprate projects at our two nuclear plants in Minnesota as part of our action plan. In that proceeding, the Commission approved the our plan to seek the government approvals

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<sup>1</sup> Appendix G-1 is a list of the completed license renewal applications, applications currently under review and expected applications.

required for both the extension of Prairie Island's operating life and the extended power uprate projects at both nuclear plants.

Monticello's initial 40-year operating license was scheduled to expire in 2010. We have received federal and state approvals to continue operating its Monticello nuclear plant until 2030. The NRC approval was granted in November 2006. In October 2006, the Minnesota Public Utilities Commission ("Commission" or "MPUC") granted a Certificate of Need ("CON") for the on-site storage of spent fuel at Monticello necessary for operations to continue until 2030. The Commission's order was subject to a stay until June 1, 2007, to allow for legislative review. The Minnesota Legislature did not take any action to alter the effect of the CON. The construction of the on-site storage facility commenced promptly after the end of the 2007 legislative session and will allow Monticello to operate until the current operating permit expires in 2030.

Our analysis in this plan confirms that our power supply will be more economical and have fewer air quality impacts if both nuclear plants continue to operate into the future. This is consistent with the 2004 Resource Plan and resulting Order. In this Chapter of our Resource Plan, we present the analysis that leads us to conclude Prairie Island should continue to be part of our diverse generation fleet that supplies reliable base load power to Minnesota and surrounding states.

To allow for the continued operation of the Prairie Island plant, we intend to file both the operating license renewal application with the NRC and a CON application with the Commission for additional dry spent fuel storage in the first half of 2008. The CON filing will be based on much of the same analysis contained in this Resource Plan. The filing will include additional background information concerning the plant and other requirements of a CON proceeding.

Although both this Resource Plan proceeding and the Prairie Island Spent Fuel Storage Expansion CON proceeding will be underway at the same time, we recommend that the Commission address all issues related to whether or not to grant



a CON for Prairie Island -- including a comparison to alternatives -- in the Spent Fuel Storage CON proceeding. This is suggested by the 2003 Act that specifies that a request for additional storage beyond that authorized by the legislation be determined in a CON proceeding. In the past, we have examined the alternative selection process within the Resource Plan, but we believe the model used for reviewing the application for spent fuel storage at Monticello worked well and should also be used for Prairie Island.

### **Analysis of Prairie Island and the Alternatives**

In our resource planning analysis, we have tested variations around three nuclear power futures:

- **Prairie Island Life Extension:** This reference scenario assumes Prairie Island receives the necessary NRC and MPUC approvals to operate another 20 years;
- **Early Prairie Island Shutdown:** This scenario assumes Prairie Island is operated only until the end of its current operating licenses in 2013 and 2014; and
- **Prairie Island Life Extension and Extended Power Upgrades at both Nuclear Plants:** This scenario assumes life extension at Prairie Island and the extended power upgrades are implemented at Monticello and Prairie Island, as the Commission directed us to pursue in its July 28, 2006 Order.

In evaluating these scenarios, we have made the following assumptions:

- Monticello will continue to operate until the end of its license in 2030;
- We will comply with the Next Generation Energy Act of 2007 as it relates to energy conservation policy; and
- We will comply with the RES goals established in the 2007 legislation.

In the reference scenario, it is assumed that Prairie Island receives the necessary NRC and MPUC approvals to continue its operation until 2033 and 2034 and the CON for additional on-site dry cask storage to support continued operation is approved. The

reference scenario does not include any future power uprates at either Unit 1 or Unit 2.

In evaluating the second scenario, the shutdown of the Prairie Island plant, we examined three alternatives to replace approximately 1,100 megawatts of base load power: 1) an “optimized scenario”, where Strategist identified the replacement resources as natural gas combined cycle; 2) a natural gas replacement scenario; and 3) a super critical pulverized coal plant with partial sequestration (“SCPC”) replacement scenario. As explained below, our analysis found that the best replacement for the Prairie Island plant was two 600 MW combined cycle units. These natural gas units were preferred due to their low capital costs and relatively low CO<sub>2</sub> emission rates.

#### *Analysis for Prairie Island Life Extension*

Our analysis shows a significant present value revenue requirements (“PVRR”) savings associated with extending the life of Prairie Island plant compared to the natural gas and coal replacements options. The savings from the combined cycle natural gas option is \$1.146 billion and the savings from the SCPC scenario is \$2.619 billion. (Table 8-1)

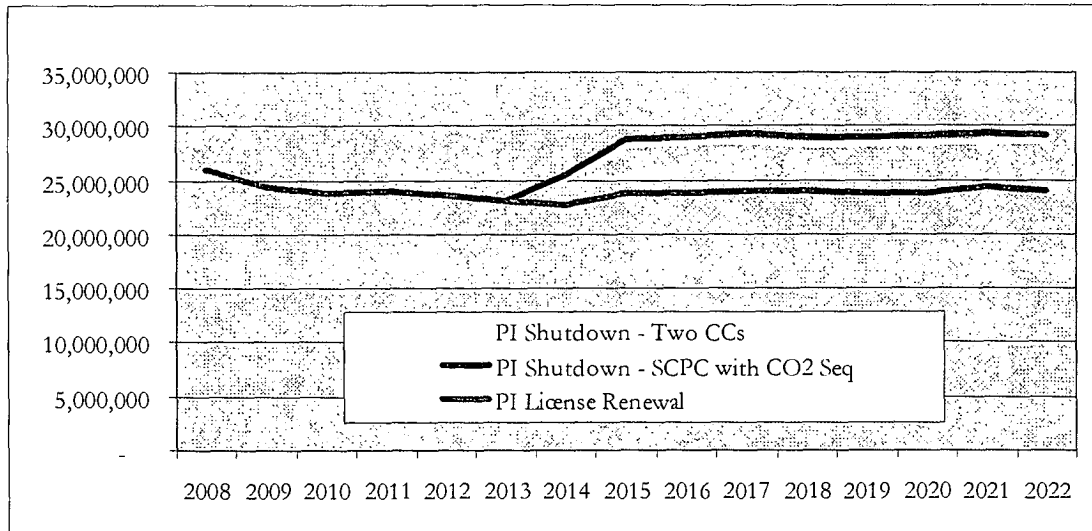
**Table 8-1**  
**PVRR (\$millions) Prairie Island Shutdown 2013-2014**

|                                                |           |                   |
|------------------------------------------------|-----------|-------------------|
| PI Life Extension Reference Case               | \$ 61,843 | <u>Difference</u> |
| Replace with Two CCs                           | \$ 62,989 | \$ 1,146          |
| Replace with Two SCPC with CO <sub>2</sub> Seq | \$ 63,819 | \$ 1,976          |

These results are consistent with the 2004 Resource Plan, which also showed significant system cost savings associated with Prairie Island life extension.

Significant benefits in terms of reduced levels of CO<sub>2</sub> and other air emissions are also realized by extending the life of Prairie Island. The incremental CO<sub>2</sub> increase from the alternative forms of generation compared to the continued operation of the Prairie Island plant are shown in Table 8-2.

Figure 8-1  
Annual CO<sub>2</sub> Emissions



### *Spent Fuel Storage Expansion*

In order for the life of Prairie Island to be extended, it will require additional dry storage casks at the plant's Independent Spent Fuel Storage Installation ("ISFSI"), but this will not increase the current footprint of the ISFSI. The additional casks to support 20 additional years of operation will fit within the current ISFSI boundary as defined by the security fences and earthen berm surrounding the ISFSI. Additional spent fuel storage casks will lead to small amounts of increased radiation exposure, but will still be well below NRC regulatory limits established to protect the health and safety of the public.

*Life Extension Sensitivities*

A number of sensitivities were performed to see how the base case of Prairie Island life extension compared to the natural gas and SCPC with partial sequestration scenarios when varying load, fuel, externalities and capital costs. In all sensitivities, the base case scenario of life extension at Prairie Island proved to be the best option for customers (Table 8-3). Table 8-3 also shows the emission level differences between the base case and the natural gas and SCPC sensitivities with partial sequestration scenarios.

**Table 8-2**  
**Prairie Island Life Extension Sensitivity Analysis**

**PI Life Extension vs Shutdown Options**

|                               | Base Assumptions | Low Load | High Load | Coal + 20% | Gas + 20% | Nuclear + 20% | Coal - 20% | Gas - 20% | Nuclear - 20% | Externalities High | Externalities Low | CO2 \$20 | CO2 \$40 | MISO ON | Capital Cost escl 3% | Capital Cost escl 5% |
|-------------------------------|------------------|----------|-----------|------------|-----------|---------------|------------|-----------|---------------|--------------------|-------------------|----------|----------|---------|----------------------|----------------------|
| Reference Case                | 61,843           | 60,604   | 63,374    | 62,772     | 64,580    | 62,183        | 60,901     | 59,898    | 61,572        | 61,985             | 62,049            | 57,351   | 70,011   | 61,695  | 63,273               | 66,604               |
| PI Shutdown Two CCs           | 1,146            | 1,095    | 1,198     | 1,190      | 1,746     | 999           | 1,104      | 519       | 1,295         | 1,159              | 1,160             | 697      | 1,976    | 1,011   | 1,091                | 932                  |
| PI Shutdown Two SCPC with Seq | 1,976            | 1,968    | 1,984     | 2,062      | 1,845     | 1,825         | 1,883      | 1,930     | 2,121         | 1,984              | 1,988             | 1,438    | 2,848    | 1,981   | 1,884                | 1,665                |

*Prairie Island Shutdown in 2013 and 2014*

The scenarios discussed below focus on the replacement of the existing generating capacity at Prairie Island. As noted above, the three alternatives to the continued operation of Prairie Island were: an “optimized” scenario, a coal replacement scenario, and a natural gas scenario.<sup>2</sup>

*“Optimized” Replacement*

Monticello and Prairie Island generate electricity around the clock to meet Xcel Energy’s base load needs. Under this “optimized” scenario, we “turned off” Prairie Island Unit #1 in 2013 and Unit #2 in 2014 and replaced them with resources chosen by the Strategist Model. If the Prairie Island facilities were shut down, they presumably would need to be immediately replaced with base load type resources. However, with the implementation of the 25 percent wind energy necessary to comply with the RES, combined with the capital and operating costs of operating intermediate and peaking facilities compared to base load facilities, the Strategist model chose natural gas combined cycle as the best option to replace the Prairie Island units. This result was a significant departure from previous analyses. In those earlier analyses, there were long lead times necessary to develop the base load resources, especially coal plants (with 7 to 10 year lead times), to replace the nuclear plants. With increased reliance on wind energy under the current plan, there is now a greater need for intermediate and peaking resources. As a result, the availability of natural gas generation equipment and gas price forecasts and volatility became more important factors in the analysis because the current primary fuel source for intermediate and peaking resources is natural gas.

*Coal-Fired Replacement*

If Prairie Island were shut down at the end of its operating licenses, roughly 1,100 MW of generating capacity would have to be replaced. In our Strategist analysis, we examined the economic and environmental impact of replacing the Prairie Island’s

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<sup>2</sup> In our previous resource plans, we have evaluated a gas/wind replacement for shutdown of one or both of the nuclear power plants. We did not evaluate that option in this plan because the new RES will increase wind penetration to 25 percent, and additional wind capacity beyond that point should not be added until we better understand the impact that this level of wind will have on our operating system.

two units with coal fired power plants. In order to simulate the impact of new coal fired replacement resources, two 500 megawatt pulverized coal power plants with partial CO<sub>2</sub> sequestration were added to the model to replace the Prairie Island units at the end of their licensed lives. Capital operating cost estimates and air emission rate estimates were based on a proprietary study of the cost and performance of super critical pulverized coal units, modified for partial CO<sub>2</sub> sequestration. In addition, we assumed additional gas-fired units or purchased power would be required since a coal-fired replacement probably could not be operational until 2017 or 2018. This on-line date was pushed back because the final decision on extending the life of the Prairie Island nuclear plant will probably not be made before mid-2010 following the completion of a contested case hearing on the CON application for additional dry cask storage and the legislature's review of that determination.

When these factors are taken into account, the present worth of the coal-fired replacement alternative is on the order of \$2 billion more expensive than the base case in which Prairie Island continues to operate through the planning period. Emissions of air contaminants are also substantially greater with the SCPC with partial sequestration replacement.

#### *Natural Gas-Fired Replacement*

In this Strategist analysis, we examined the economic and environmental impact of replacing Prairie Island with natural gas-fired power plants. In order to simulate the impact of new natural gas fired replacement resources, two 600 MW natural gas combined cycle power plants were added to the model: one in 2013 and one in 2014. Capital, operating cost estimates and air emission rate estimates for the natural gas replacement facilities were based on a proprietary cost and performance study.

While natural gas fired plants have not typically required the long lead time necessary for base load coal facilities, the industry has recently seen a significant shift in the lead times necessary for natural gas turbines. In 2006, the time from order to delivery was approximately 12 months. More recently, the lead times have stretched out to 24 months. Since this scenario relies on natural gas for the replacement power and any

bridge would be predominantly natural gas fired, no bridge was considered. Strategist was then allowed to select generic resources to optimize costs and schedule throughout the rest of the planning period.

Under this analysis, the present worth of the natural gas replacement scenario is approximately \$800 million less expensive than the coal replacement case. Emissions of air contaminants is substantially greater than the continued operation of Prairie Island base case, but less than the SCPC with partial sequestration case.

The analysis indicates that if Prairie Island were to be replaced with 1,200 MW combined cycle natural gas units, there would be a potential to increase overall electricity costs by approximately \$1.1 billion over the planning period.

#### *Extended Power Uprates at Monticello and Prairie Island*

The operating licenses granted by the NRC for the nuclear plants specify a maximum thermal power level for reactor operation; this level cannot be exceeded during normal plant operation. To increase this maximum power limit (called an “uprate”), a licensee must seek and obtain an amendment to its operating license from the NRC. To support the amendment, licensees must perform extensive safety analyses within guidelines established by the NRC.

To increase a nuclear plant’s power levels, the reactor must produce more thermal energy to produce more steam, which in turn provides more power to the turbine generator and produces more electricity. Depending on the amount of the increase and the original equipment design, an uprate may require major plant modifications, such as the replacement of high and low pressure turbines, pipes, valves, heat exchangers, transformers and generators to safely accommodate the production increase and comply with NRC requirements.

Monticello uses a single-cycle, forced-circulation, low-power density, boiling water reactor. In 1998, Monticello was the first plant to receive uprate approval from the NRC. Monticello was able to increase generation by 36 MW with minimal changes to



installed plant equipment. The NRC has approved extended power uprates for twelve boiling water reactors. Based on the success of extended power uprates that the NRC approved for other boiling water reactors, we believe we can achieve an additional 71 MW increase in net generator output. The work necessary to gain the additional 71 MW is extensive and would be spread over two refueling outages. It is planned that modifications to be completed during the next refueling outage in March 2009 will add an additional 15 MW of capacity and the remaining 56 MW of additional capacity will be available upon the completion of the March 2011 refueling outage. The Monticello CON application will be filed in a separate docket.

Prairie Island Units 1 and 2 are two-loop pressurized water reactors. Two-loop pressurized water reactors use two steam generators to remove heat from the reactor core, producing steam to drive a turbine-generator to produce electricity. Evaluation of plant changes for pressurized water reactors must be split into two parts. First, the reactor or primary system is evaluated to determine how much energy can be produced and delivered to the steam generator. The steam generators then convert that energy to steam and deliver it to the secondary system to convert that steam to electrical generation; and second the secondary systems are evaluated to determine how much additional electrical generation can be produced.

The NRC has approved extended power uprates for five pressurized water reactors. We have reviewed those projects and assessed their applicability to the Prairie Island plant. Based on that review, we believe we can gain approximately 164 MW from Prairie Island (82 MW per unit). The uprate will be spread over multiple refueling outages - providing an additional 82 MW in 2013 after Unit 1 is refueled and an additional 82 MW in 2014 when Unit 2 refueling is completed.

The extended power uprates at Prairie Island are proposed assuming that the Prairie Island two unit's licenses are successfully extended until 2033 and 2034. If the NRC does not approve the renewed operating licenses, or the Commission does not grant the CON for additional spent fuel storage necessary to continue operating Prairie Island through the period of the renewed licenses, or the State Legislature were to

reject the Commission's decision on additional dry cask storage, the extended power uprate project at Prairie Island will not be pursued.

*Analysis for Extended Power Uprates at Monticello and Prairie Island*

Our modeling demonstrates that the extended power uprates at Monticello and Prairie Island would be beneficial to our customers and the environment under a variety of scenarios. In all instances, whether considered separately or as a package, the extended power uprate projects proved to be beneficial to our customers as reflected in Table 8-3.

The uprate proposals for the Monticello and Prairie Island facilities will significantly increase our ability to reduce greenhouse gas emissions with low-cost, carbon-free, base load energy. The expanded capacity at the nuclear plants provides a valuable asset in our resource mix as we consider opportunities to retire existing fossil fuel plants to reduce our carbon footprint. The uprates thus provide significant long-term economic and environmental benefits, even after modifying our Plan to reflect the RES and DSM goals.

Table 8-3

## Reference Case PVRRs - Monticello EPU, PI EPU, and Alternatives

|                        | Base Assumptions | Low Load | High Load | Coal + 20% | Gas +20% | Nuclear+20% | Coal-20% | Gas-20% | Nuclear-20% | Externalities High | Externalities Low | CO2 \$9 | CO2 \$40 | MISO ON | Capital Cost escl 3% | Capital Cost escl 5% |
|------------------------|------------------|----------|-----------|------------|----------|-------------|----------|---------|-------------|--------------------|-------------------|---------|----------|---------|----------------------|----------------------|
| Reference Case         | 61,843           | 60,604   | 63,374    | 62,772     | 64,580   | 62,183      | 60,901   | 59,898  | 61,572      | 61,985             | 62,049            | 57,351  | 70,011   | 61,695  | 63,273               | 66,604               |
| Monticello EPU - 71MW  | (197)            | (179)    | (216)     | (202)      | (272)    | (185)       | (193)    | (140)   | (208)       | (198)              | (199)             | (158)   | (295)    | (167)   | (199)                | (201)                |
| Coal PPA - 71MW        | 69               | 83       | 50        | 65         | (7)      | 69          | 74       | 128     | 69          | 68                 | 68                | 34      | 107      | 101     | 67                   | 117                  |
| Biomass - 71MW         | 345              | 358      | 326       | 341        | 272      | 345         | 348      | 399     | 345         | 344                | 344               | 233     | 523      | 375     | 348                  | 355                  |
| PI EPU - 164MW         | (523)            | (496)    | (546)     | (528)      | (647)    | (503)       | (508)    | (406)   | (533)       | (521)              | (522)             | (433)   | (698)    | (478)   | (510)                | (488)                |
| Coal PPA - 164MW       | 14               | 35       | (12)      | 4          | (115)    | 14          | 24       | 126     | 14          | 12                 | 11                | (71)    | 146      | 52      | 12                   | 10                   |
| Biomass - 164MW        | 660              | 681      | 636       | 652        | 541      | 660         | 670      | 764     | 660         | 660                | 660               | 402     | 1,110    | 696     | 683                  | 730                  |
| Monti & PI EPU - 235MW | (554)            | (541)    | (566)     | (570)      | (671)    | (527)       | (537)    | (430)   | (579)       | (557)              | (558)             | (435)   | (763)    | (534)   | (539)                | (502)                |
| Coal PPA - 235MW       | 131              | 160      | 96        | 116        | (45)     | 131         | 148      | 292     | 131         | 128                | 126               | 5       | 334      | 182     | 128                  | 123                  |

Based on these analyses, we expect to file the CON application for the extended power uprate project at Monticello in early 2008 and the CON application for additional spent fuel storage to support life extension at Prairie Island and the CON application for the Prairie Island extended power uprate by Spring 2008.

## Nuclear Modeling Assumptions

We used the Strategist model to evaluate the effects of the Prairie Island life extension and the extended power uprates. In the discussion below, we describe some of the key variables we used to analyze nuclear power's role in our resource mix.

### *Capital Investments*

We routinely invest and upgrade systems so that the Monticello and Prairie Island plants continue to operate safely and reliably. We assumed an average investment of \$10 million dollars for the Monticello plant and \$20 million for Prairie Island's two units.

In addition to the annual routine capital investments, larger capital investments are required periodically. These larger capital investments result from new or evolving regulatory requirements, operating experience at our plants or elsewhere in the industry, parts obsolescence or new technologies becoming available. These periodic investments have also been included in our modeling efforts and are commonly referred to as life cycle management costs. In total, we have included over \$600 million of large capital investments at Prairie Island and over \$250 million of large capital investments at Monticello in the Resource Plan model above and beyond annual routine capital costs.

Routine capital investments and larger life cycle management investments have been included in all nuclear scenarios. Capital investments to accomplish the power uprates at Monticello and Prairie Island have only been included in the scenarios used to evaluate the financial impacts to ratepayers of the power uprates.

### *Prairie Island Relicensing Costs*

The total cost to work through the regulatory process to renew the licenses to operate Prairie Island Units 1 and 2 for an additional 20 years until 2033 and 2034 respectively was estimated at \$20.6 million.

*Replacement of Steam Generators for Prairie Island Unit 2*

As we reported in past resource plans, through an aggressive program of inspection and maintenance the Prairie Island plant has been able to operate its steam generators longer than other plants of similar vintage. However, projections of steam generator tube degradation indicate that while plant safety can be maintained without compromise, the plant could become uneconomic due to declining performance of the steam generators. In previous work, we determined that replacing steam generators in Unit 1 was cost justified even if the plant operated only to 2013. As a result, replacement was completed in 2004.

In 2004, the Unit 2 steam generators were determined to be in better shape than those in Unit 1 were. Therefore immediate replacement was not justified. However, it will be necessary to replace the Unit 2 steam generators in order to keep the plant operating economically beyond the current license period. Our Strategist analysis includes steam generator replacement for Unit 2 in those scenarios in which Prairie Island operates beyond 2014. Steam generator replacement for Unit 2 is estimated to cost approximately \$259 million.

*Spent Fuel Storage Assumptions*

Currently 24 of the 29 casks anticipated to be required to support operations until the end of the current licenses have been filled and placed in Prairie Island's Independent Spent Fuel Storage Installation. Capital investments have been included in the model for the remaining five casks to support operation until the end of the current licenses as well as increasing spent fuel storage capacity at Prairie Island to accommodate the entire 20 year period of extended operations resulting from the renewal of the operating licenses. It is assumed that Prairie Island will continue to use the TN40 dry cask storage system currently in place at the plant. We continue to pursue the licensing changes needed to qualify the TN40 dry casks for transportation. In August 2007, our application to the NRC to license the TN40's for transport was accepted. We anticipate a favorable decision in approximately twelve to fourteen months. The NRC has already approved a similarly designed cask, the TN68, for transport. The TN68 is a "sister" cask utilized for boiling water reactor spent fuel while the TN40 is

for a pressurized water reactor spent fuel. We estimate an additional 35 TN40 casks will be needed to support the 20 years of extended operation. The combined cost of the five casks to operate until the end of the current license and the casks needed to support 20 years of additional operation is \$190 million, with the portion related to the additional casks being included in the relicensing scenarios only and the portion related to the five casks included in all scenarios.

### **Out of Model Adjustments**

If the operating life of the Prairie Island plant is not extended, there are some significant shutdown costs that are not taken into account by the Strategist Model. These costs could range in the aggregate from \$335 million to \$390 million, or more. They relate to three specific shutdown activities: (1) the costs associated with retaining key personnel once the announcement is made that the plant will shutdown (\$80 million to \$135 million, present value); (2) the management of spent nuclear fuel and decommissioning (\$141 million, present value); and (3) the changes in the transmission system required to maintain regional transmission stability and serve replacement power resources (approximately \$115 million). The rationale for these costs were discussed in detail in our 2002 and 2004 Resource Plans. We are not repeating that discussion in this plan because our analysis shows that license renewal is the most cost-effective option even before these shutdown costs are considered.

In addition to these costs, replacement generation would require significant new transmission investment. These costs would be in the range from \$30 million if all replacement generation were located near Prairie Island, or could range from \$350 to \$900 million if located elsewhere.

### **Updated Nuclear-Related Reports**

In 1995, Xcel Energy provided the legislative Electric Energy Task Force with four reports relating to nuclear issues at the Prairie Island Power Plant, including: a dry cask alternatives study, a worker transition plan, a nuclear power phase-out plan, and a cask decommissioning plan (Minn. Stat. § 116C.772). The 2003 Legislature amended Section 216C.051, requiring us to provide updates to three of these reports in resource plans. The three reports include the worker transition plan, the nuclear power phase-out plan, and the TN40 dry cask-decommissioning plan.

The first updates to these reports were included in Xcel Energy's 2004 Resource Plan. As part of the Commission's decision issued on June 11, 2007 allowing Xcel Energy to extend its time to file the next resource plan to no later than March 3, 2008, the Commission accepted Xcel Energy's commitment to file the nuclear reports required under Minn. Stat. § 216C.051 on or before July 1, 2007. Xcel Energy filed the required reports on Monday, July 2, 2007.

The cask-decommissioning plan filed on July 2, 2007 has not changed since that filing and remains valid. The nuclear phase-out plan filed on July 2 is superseded by the analysis contained in this chapter of the Resource Plan that evaluates shutting down Prairie Island Units 1 and 2 in 2013 and 2014 versus extending their lives for an additional 20 years until 2033 and 2024. An updated worker transition plan is included as Appendix G-3. It has been updated to reflect that Xcel Energy is now the sole owner of Nuclear Management Company, LLC and that all NMC and Xcel Energy employees at Monticello and Prairie Island will fall under Xcel Energy's Human Resource policies as of January 1, 2008.

### **Conclusion**

The analysis indicates that the cost of our power supply, as measured by the present value of revenue requirements, will be in the range of \$1.1 billion to \$2 billion more expensive without continued operation of Prairie Island, even if we invest over \$650 million in Prairie Island over the extended operating period. From an operational perspective, use of fossil fuel based resources is the only practical available alternative

to replace nuclear power in the near term. But the use of these resources will significantly increase emissions to the atmosphere. Based on these factors, the optimized scenario picks natural gas combined cycle over other replacement base load options. This is partially due to the operational flexibility of natural gas plants in complementing the wind required by the RES, versus the competing nature of a base load plant with the RES requirements. It appears that between the high capital and environmental costs of base load coal and the implementation of the RES, the economics of traditional base load facilities are becoming less attractive due to wind cutting into the capacity factors of base load units.

If Prairie Island were to retire in 2013 and 2014, Strategist calculates that even though combined cycle units have higher operating costs/MWH than base load coal operating costs, once the lower capital costs of combined cycle units versus coal plants and the capacity factors of the plants are considered, it is less expensive to build and operate combined cycle natural gas plants than base load coal.

The most significant concern regarding continued operation of Prairie Island is that there has yet to be a definitive solution regarding spent fuel storage. Even though it is a hotly contested political issue, we believe the technical issue of spent nuclear fuel disposal can be effectively dealt with. Shutting down Prairie Island does not advance the resolution of the national political debate over the need for spent fuel disposal. Instead, it only increases energy costs to Minnesota consumers and increases air quality impacts.

Our analyses also indicate that pursuing extended power uprate projects at both the Prairie Island and Monticello nuclear power plants is in the best interest of our customers and the environment. Customers benefit from the power uprates as demonstrated in our PVR calculation that compares the costs of the power uprates at both the nuclear plants to the MW equivalent of the uprates with coal or biomass resources. Our analyses indicate that the power uprate project at Monticello is significantly cheaper than a biomass alternative, and while the power uprate at Prairie Island is slightly more expensive than at Monticello on a dollar per kW basis, it is still



economically beneficial to ratepayers and the environment as compared to the alternatives considered. These conclusions leads to our action plan to:

- *Obtain approval from the NRC to renew the license allowing the continued operation of Prairie Island Nuclear Generating Plant Units 1 and 2 until 2033 and 2034 respectively.*
- *Obtain a Certificate of Need from the Minnesota Public Utilities Commission for additional spent-fuel storage at Prairie Island to support the 20 years of additional operation.*
- *Obtain a Certificate of Need for Power Uprate at Monticello to gain an additional 71 MW.*
- *Obtain a Certificate of Need for Power Uprate at Prairie Island to gain an additional 164 MW.*



## 7. New Resources

- *After accounting for our proposed expansion of existing resources, our Preferred Plan requires approximately 2,300 MW of incremental, non-wind resources to serve our customers' needs.*
- *Maintaining a high degree of system reliability requires the addition of operationally flexible resources to complement the intermittency of wind generation required by the RES. Currently, the best resource to combine with wind is natural gas generation.*
- *Although our Preferred Plan will add substantial amounts of natural gas-fired capacity to our resource portfolio, our actual use of natural gas will be moderate, and we will continue to take steps to mitigate natural gas price risk to our customers.*
- *We propose to maximize the efficiency and minimize the cost of new natural gas facilities and associated transmission by developing energy campuses that combine natural gas and wind generation facilities, make the best use of transmission investments and can help support a future, local biogas market.*

### Overview

Our analyses confirm the need for additional resources to meet our customers' growing needs despite increased DSM efforts. Supporting the new wind resources necessary for the RES will require the addition of supporting generation plants. These new generation resources will need to quickly respond to the intermittent nature of wind, provide firm peak day back-up generation in the event the wind is not blowing, and meet incremental needs. Given current technologies, a major component of this wind-following support will be natural gas-fired, combined-cycle and peaking resources. Other sources of additional capacity in our Preferred Plan include purchases from Manitoba Hydro and exploration of the use of bio-fuels.

This chapter presents our assessment of the resources needed to meet incremental needs above expansion of our existing resources, the resources available to meet these needs, innovations that we intend to pursue, and support for the new resources contained in our Preferred Plan.

### **Our Need for Intermediate and Peaking Power**

Our Preferred Plan adds 2,300 MW of intermediate and peaking generation over the 15-year planning period, including the 160 MW of peaking resources already out for bid. Our five-year Action Plan proposes steps for procuring approximately 900 MW of those resources.

We note that Strategist did not select any new coal resources to meet our incremental needs, other than the expansion of our existing Sherco units that is comparatively low cost and cost-effective. This result stems from a variety of factors that have changed since our 2004 Plan, including:

- *RES compliance*, which requires the addition of significant wind resources. Because the wind supplies significant amounts of energy, the higher capital costs of base load are not sufficiently offset by its lower energy costs to be cost-effective.
- *Expanded DSM*, which reduces the forecast incremental energy requirements from previous estimates and likewise affects the cost-effectiveness of base load resources.
- *Capital costs*, which have increased from the prior plan and have a greater impact on base load resources, since they are more capital-intensive than other potential resources.
- *Environmental costs*, which reflects estimated costs of partial carbon capture in the base load option, as we believe at least some level of sequestration would be needed to meet the state's carbon management goals and hedge the risk of substantial environmental costs.

In addition, as required by the Next Generation Energy Act and the Commission, our analyses reflect carbon values that influence the cost-effectiveness of various resources.

Our sensitivity analyses further support the conclusion that incremental base load resources are no longer needed on our system. Strategist failed to select a new coal resource as cost-effective even under the following scenarios:

- Elimination of the carbon sequestration costs,
- Reduction of the carbon value to \$9/ton, and
- Increase in natural gas prices by 20% over our forecast assumptions.

These results support the conclusion that our 2015 need is no longer a base load need. Instead, our new Plan determines intermediate and peaking resources are the best incremental selections for our system.

The key choices available to us for intermediate and peaking generation are purchases from Manitoba Hydro and new natural gas-fired power plants. Our Preferred Plan makes use of both of these resources, as discussed below. Because obvious concerns with additional natural gas plants are fuel availability, price volatility, and competition for natural gas with home-heating use, we provide further detail on our natural gas price forecast and projected consumption over the planning period. This information also complies with the Commission's Order authorizing the filing of this Resource Plan.

### **Manitoba Hydro Contract Extension**

While an incremental base load resource is no longer needed on our system during the planning period, our new modeling confirms that an arrangement with Manitoba Hydro for 375 MW of intermediate resources and 350 MW of peaking resources through a seasonal diversity exchange remain a cost-effective way to meet our 2015 needs. We previously proposed this arrangement coupled with wind resources as part of the base load proceeding authorized in

our 2004 Resource Plan; while the wind portion of that proposal will now be subsumed into our RES compliance, the arrangement with Manitoba Hydro remains a cost-effective option for meeting our incremental needs. In particular, the structure of a Manitoba Hydro purchase fits well with on-peak capacity needs, especially during the summer.

We further believe that the Manitoba Hydro contract extension provides many benefits that are not available through the acquisition of other new intermediate resources. First, it continues a long and valuable relationship between Xcel Energy and Manitoba Hydro, which has resulted in numerous transactions that have benefited the customers of both companies. Second, in addition to large, fixed-quantity contracts, we have also exchanged seasonal capacity and energy and economy energy in our respective peak seasons. Third, we anticipate that purchases from Manitoba Hydro will be available at a competitive price that will serve as a hedge against uncertain future natural gas or other fossil-fuel prices. Finally, there are already transmission paths in place that accommodate over 1,000 MW of transfer capability, some of which will be used for this intermediate transaction. Taking advantage of this available transmission capacity offers significant benefits for our customers.

Our modeling shows that the Manitoba Hydro purchase is cost-effective as compared with generic combined-cycle resources, particularly if gas costs are higher than projected. As a part of our Preferred Plan, we propose to present a new contract to the Commission for approval in Fall 2008.

### **Natural Gas Plants**

Natural gas resources offer particular benefits that complement the significant amounts of wind energy that will be added to our system. Natural gas plants have cycling capabilities, faster ramp rates, and are more economical at lower capacity factors than coal-fired or nuclear facilities. In addition, certain peaking resources have quick-start capability and burn less fuel, emit fewer emissions

due to the shortened ramp rates, and operate at higher efficiency under both full and partial capacity compared to traditional units.

With greater operating flexibility, we will be more likely to avoid instability during non-peak hours when the energy from wind and base load plants can exceed our demand needs, or during periods when the energy produced by wind can rise or fall rapidly due to wind fluctuations. To maintain system reliability, we will work with MISO to balance the integration of wind with the existing system. However, we know that the intermittent nature of wind requires us to have resources that can respond to these generation changes on a minute-by-minute basis to maintain system reliability. As a result, we will need adequate non-wind resources that can flexibly accommodate and complement this increased wind generation.

Fortunately, at present, the combination of wind and natural gas resources offers the most benefits to our customers and provides the lowest-cost expansion path. Wind is a hedge against exposure to natural gas price volatility, and it has no energy costs. Natural gas serves as the backup that reliably balances the wind on our system. This combination results in an environmentally friendly and reasonably priced resource that makes up a significant portion of our expansion path.

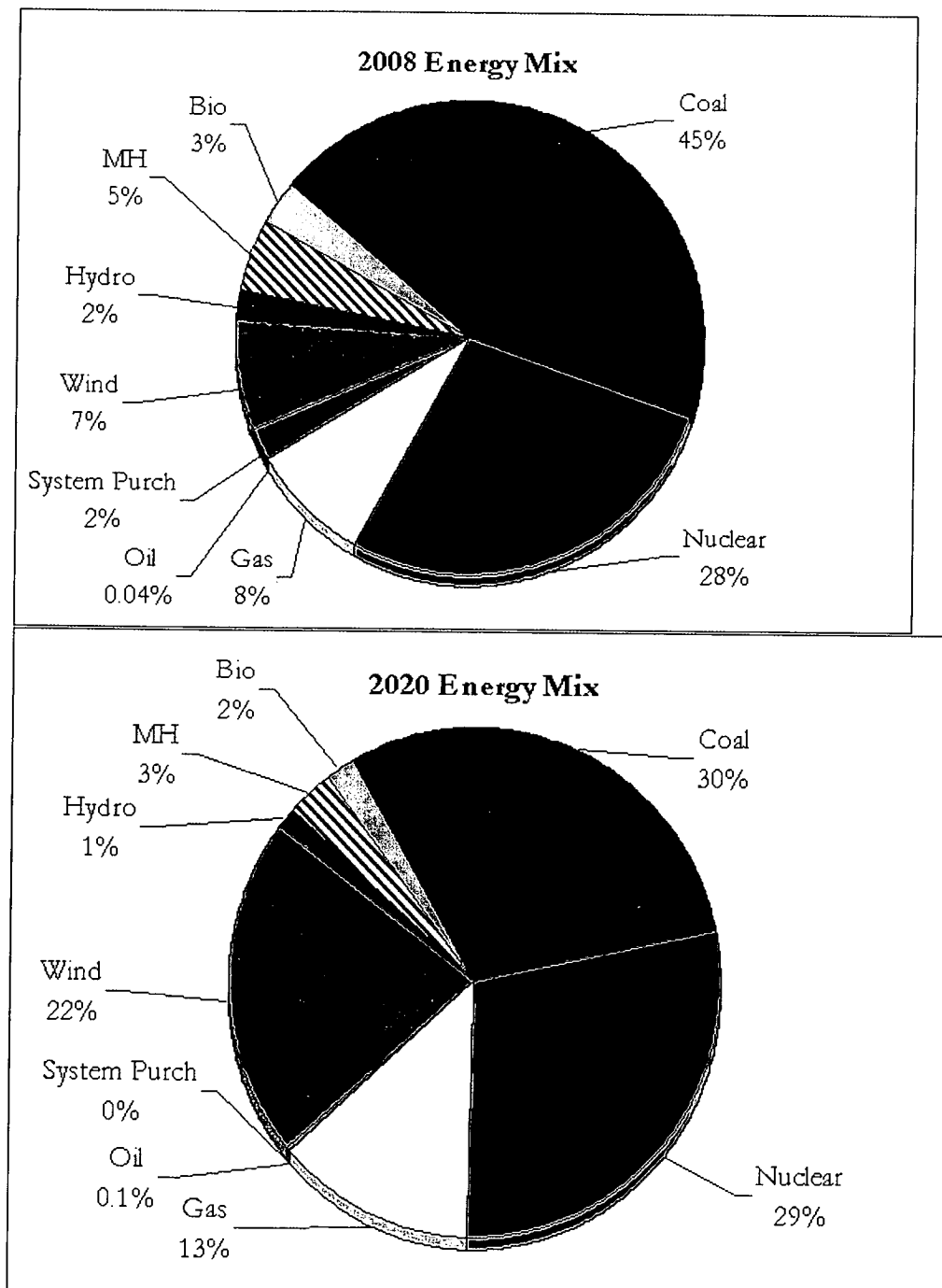
In the following sections, we present further information regarding our projected consumption of natural gas under our Preferred Plan and the price forecasts assumed in our modeling.

#### *Natural Gas Use*

Our analysis indicates that even with the addition of the new natural gas capacity identified in our Preferred Plan, natural gas consumption will increase only moderately and will remain a reasonable portion of our energy portfolio. This result occurs because the wind resources added to comply with the RES provide significant energy that offsets use of other generation resources,

including natural gas plants. For example, once the RES is fully implemented by 2020, the production of approximately 12,000 GWh/year of wind energy will reduce gas consumption by nearly 100 BCF per year. We provide the comparison between our 2008 and 2020 energy mix in Figures 7-1 and 7-2 below.

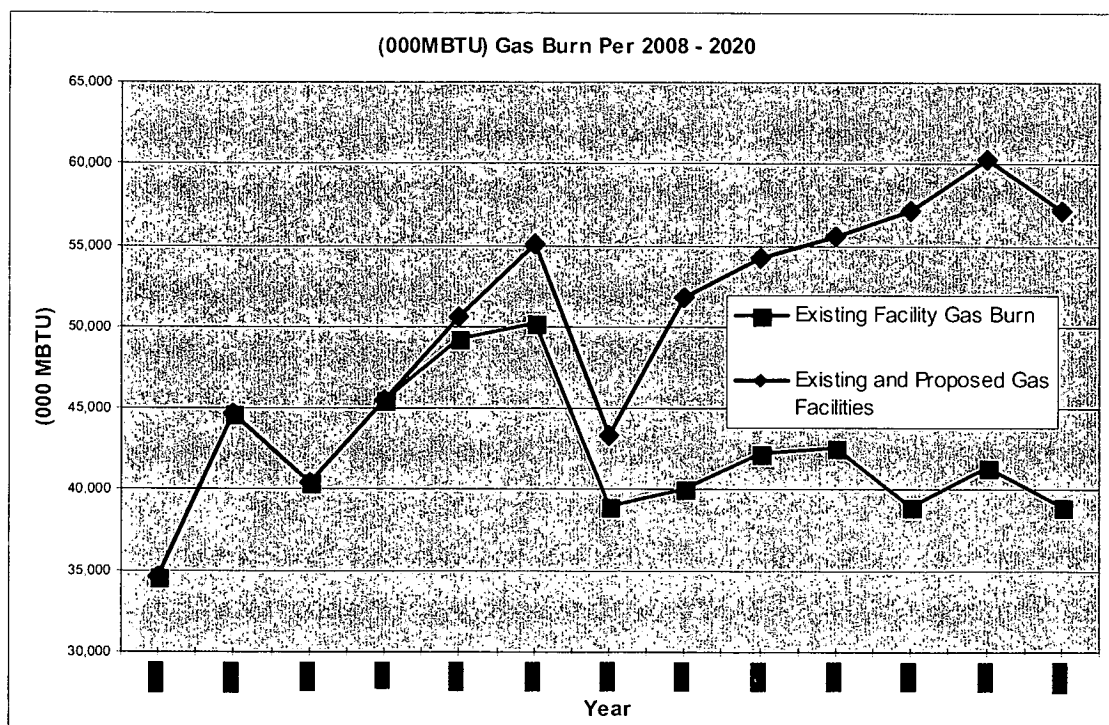
Figures 7-1 and 7-2





As Figure 7-3 illustrates, our use of natural gas will vary, rising and falling to accommodate other events on our system, such as nuclear outages to facilitate life extension and capacity uprates or the expiration of certain purchased power agreements. We note that the increase of wind energy serves to moderate our use of natural gas for electric generation compared to a plan that does not contain this level of wind. This outcome will help to limit our exposure to the volatility of natural gas prices compared to alternative expansion paths.

**Figure 7-3**  
**Natural Gas Burn**



#### *Natural Gas Forecast and Sensitivities*

Because no single forecast will accurately project future natural gas prices, we believe that using a range of projections from respected sources is an appropriate method to consider the impact of changing natural gas prices. In

this Plan, we offer our own natural gas price forecast for use in our modeling. This approach allows us to provide our forecast as public information, as opposed to needing to protect the trade-secret nature of a third party's forecast. We also believe this approach capitalizes on the expertise of various forecast firms.

We developed the forecast for the period 2008 through 2012 directly from the reference day's closing prices for the NYMEX Natural Gas forward contracts. We believe this index remains the most transparent and unbiased market-based estimator of forward prices through the active trading period.

Beginning in January 2013, we developed the forecast using the simple average of various sources, including the U.S. Energy Information Administration's Annual Energy Outlook, PIRA Energy Group, Cambridge Energy Research Associates, and Global Insight, Inc. Xcel Energy uses the most recent estimates available from these sources when developing a forecast.

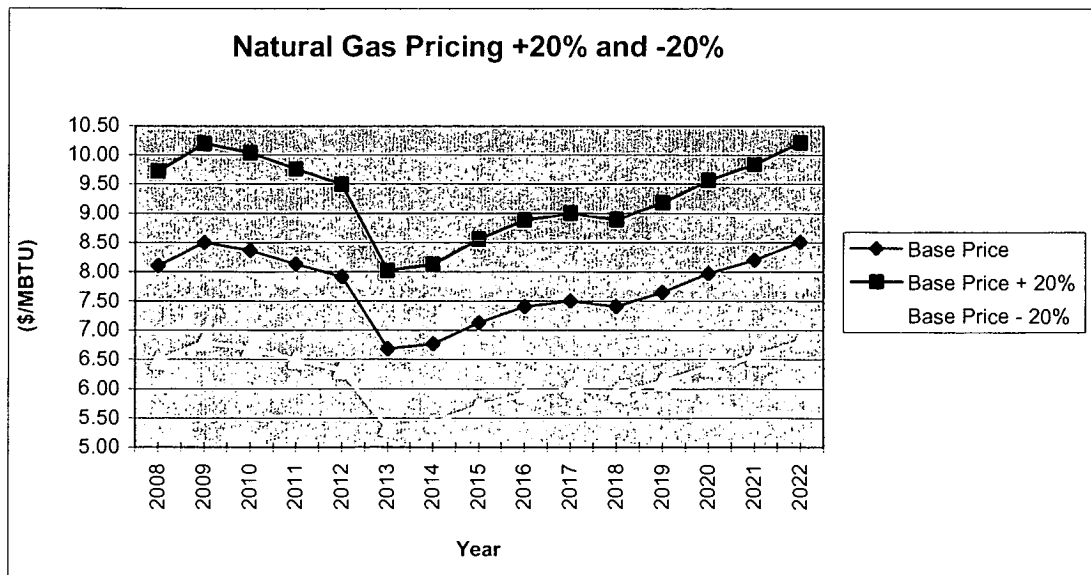
Further, to recognize volatility and uncertainty, we incorporate a  $\pm 20\%$  range to provide sensitivity analyses in our planning, thus providing a range of possible outcomes. In addition to the traditional gas price sensitivities that have been included in past plans, this Plan includes a sensitivity case that incorporates the cost of managing seasonal volatility as an addition to the base gas price forecast. We believe this approach is appropriate because it better reflects our likely approach to procuring needed natural gas resources. High volatility can be managed through the use of natural gas hedging instruments and storage. To reflect the potential impact of periods of high seasonal natural gas volatility, we have created a sensitivity analysis that incorporates the cost of natural gas hedging tools and natural gas storage into the natural gas price forecast.

We present our forecast and sensitivity range in Table 7-1 and Figures 7-4 and 7-5 below.

**Table 7-1**  
**Natural Gas Price Sensitivities**  
**(Average Annual Prices)**

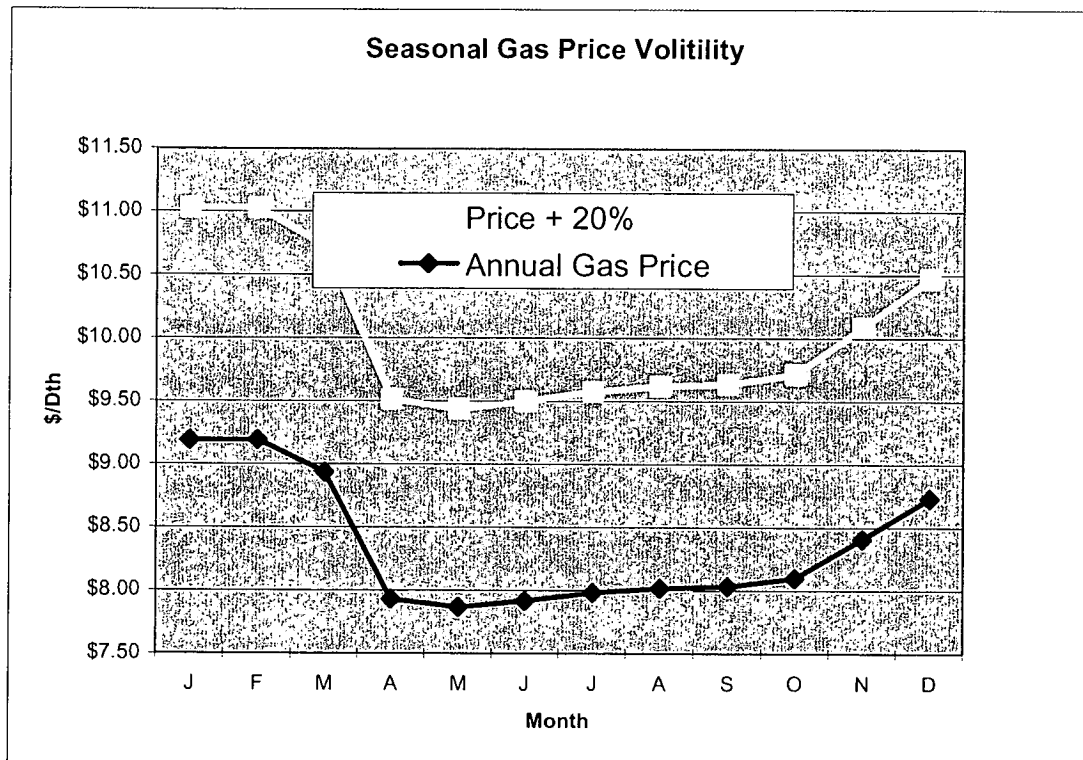
| FUEL COST<br>(\$/MBTU) | 12 Month Average          |       |      |
|------------------------|---------------------------|-------|------|
|                        | Natural Gas<br>Base Price | + 20% | -20% |
| 2008                   | 8.09                      | 9.71  | 6.47 |
| 2009                   | 8.49                      | 10.19 | 6.79 |
| 2010                   | 8.35                      | 10.02 | 6.68 |
| 2011                   | 8.12                      | 9.74  | 6.50 |
| 2012                   | 7.90                      | 9.48  | 6.32 |
| 2013                   | 6.67                      | 8.00  | 5.34 |
| 2014                   | 6.76                      | 8.11  | 5.41 |
| 2015                   | 7.12                      | 8.54  | 5.70 |
| 2016                   | 7.39                      | 8.87  | 5.91 |
| 2017                   | 7.49                      | 8.99  | 5.99 |
| 2018                   | 7.40                      | 8.88  | 5.92 |
| 2019                   | 7.64                      | 9.17  | 6.11 |
| 2020                   | 7.96                      | 9.55  | 6.37 |
| 2021                   | 8.19                      | 9.83  | 6.55 |
| 2022                   | 8.50                      | 10.20 | 6.80 |
| HIGH                   | 8.50                      | 10.20 | 6.80 |
| MED                    | 7.90                      | 9.48  | 6.32 |
| LOW                    | 6.67                      | 8.00  | 5.34 |

**Figure 7-4**  
**Natural Gas Price Sensitivities**



We note that these annual prices are the straight average of a twelve-month forecast. On a monthly basis, gas prices are typically higher in the winter months and lower in the summer months. In Figure 7-5 below, we include a monthly forecast to show the seasonal volatility of gas reflected in our forecast.

Figure 7-5



### *Gas Purchasing Strategy*

Even moderate increases in the use of natural gas underscore the need to obtain adequate supplies of firm gas supply, firm transportation and natural gas storage to ensure economical and reliable system operations. There is extensive natural gas infrastructure to support the distribution and use of natural gas within Minnesota. In circumstances when the existing infrastructure is not adequate to meet the additional generation requirements, new natural gas infrastructure can be constructed in a relatively short period of time. We have experience in acquiring significant volumes of firm transportation capacity and

have aggressively pursued natural gas storage to manage the swings in production that are the result of the large amount of wind on our system. These efforts will continue under this Plan and serve to reduce the overall cost and operational risk of using natural gas for electric generation.

Although price volatility in the natural gas market will continue to exist, the amount of natural gas that will be used on our system will not affect the overall gas market. Minnesota also is not a price setter in the U.S. natural gas market, since the state's total consumption is not large enough to influence the price of natural gas. Additionally, there are tools available to help us manage price risk. For example, we are taking steps to minimize price exposure to customers through the use of hedging, storage and other strategies. Likewise we are working to develop longer-term strategies to help minimize the ultimate cost and volatility to customers by managing the amount of natural gas burned and ensuring the needed transmission resource are available to connect the new generation – wind and natural gas – to the regional transmission system.

### *Summary*

Despite concerns of price volatility, natural gas plants offer benefits that make them a necessary component of our Resource Plan. The combination of wind and natural gas resources make up a significant part of our Preferred Plan and offer the lowest cost, most environmentally sound expansion path for our customers.

### **Energy Campuses**

Given the significant amount of supporting intermediate and peaking generation that is needed on our system during the planning period, we believe it is critical that development occurs in a timely and efficient manner. To that end, we are developing the concept of “energy campuses” that would develop, at select locations, facilities that could accommodate six to eight combustion turbines, either in simple cycle or combined cycle operation. This approach would support installation that could be phased-in over time as the resource

need develops, providing flexibility. We would select facility locations and work to take advantage of the transmission access already reserved for the wind resources, minimizing both the overall cost to customers and the time necessary to place generation in-service. While we would need to work with MISO on this concept, we believe it holds promise.

We anticipate that energy campuses will offer significant savings in terms of capital costs, operations and maintenance costs, and in fuel delivery compared to traditional, single-unit installations. Our plan would allow for the orderly installation of resources as they are needed, while also providing the backbone of the Company's updated contingency planning. We would attempt to locate the campuses at sites with good access to natural gas delivery facilities, water supply and transmission. The initial development of sites would include the installation of the fuel supply, transmission access, water supply, access roads, fencing, administration buildings and possibly foundations for multiple units. The construction of the actual generating facilities would then be phased in over time, as the system needs developed.

The flexibility of the energy campus concept will help provide a reliable contingency plan should generation need to be added quickly to the system, such as due to catastrophic failure of existing generation, unexpected changes in demand, failure of another resource to be completed on time, or other event. With a planned acquisition strategy for turbines and the fuel supply, transmission, other site infrastructure, we expect that additional combustion turbines could be installed in a timeframe as short as twelve months. At the same time, should DSM exceed our current expectations, the energy campus concept could readily accommodate delays. This type of flexibility would ensure we are able to deal with unexpected events in an orderly process.

In addition to providing us the flexibility to react quickly to unexpected events, the energy campus has a number of other benefits, including the potential for:

- Lower capital costs by using a standardized design and leveraging long-term purchase opportunities with multiple machines.
- Lower operating costs as personnel could be shared over numerous units and a common parts inventory with interchangeable spares for quick overhauls could be established.
- Greater coordination between generating units. For example, the natural gas supply ordered for that day could be quickly diverted to other units at the site without any scheduling difficulties or delays. Likewise, to the extent fuel oil back-up is used, the tanks at the site could be shared among a number of units.

We intend to continue to develop the energy campus concept to support the development of peaking and intermediate resources on our system.

### **Transition to Biogas**

Beyond looking for ways to minimize natural gas cost and use, we have also sponsored research into creating viable alternatives for natural gas, such as biogas, as a fuel for peaking and intermediate facilities. Biogas has potential as a “home-grown” alternative to natural gas. As such, we believe further work is needed to explore its use on our system, especially since there would be significant benefits to having a portion of our incremental peaking resources fueled by a renewable resource.

Through the Renewable Development Fund, we are pursuing research to identify and encourage the market penetration of biomass fuels, including infrastructure needs, transportation and handling, and the development of energy crops. We are also supporting laboratory research to find technologies that purify biogas into pipeline-quality, renewable syngas so that it can be transported in natural gas pipelines. These technologies include anaerobic digestion, gasification, and pyrolysis. We believe these technologies may enable us to create biogas capable of producing energy at market-competitive prices.

Further research is needed regarding the removal of the impurities inherent to various biomass syngases (i.e. siliconates, particulate matter, nitrates) that now prevent biomass from being used as an alternative fuel in large, natural gas fired turbines. We intend to continue to explore the potential for biogas fuels for potential incorporation into our system, including as described in our energy campuses discussion above.

## Other Potential Resources

In this section, we briefly summarize other available resources not selected in our Preferred Plan to provide further support for our selections.

### *Coal-based Generation*

As part of our evaluation of potential resources to meet our future needs, we considered new coal-based generation. Carbon emissions play a key role in determining the future use of coal-fired generation on our system. Because coal-fired generation emits more than twice the CO<sub>2</sub> per MWh than natural gas-fired generation, the addition of new coal to our system increases our costs under future carbon regulation scenarios and jeopardizes our ability to meet carbon reduction goals that have been established by the Article 5 of the Next Generation Energy Act of 2007.

There are currently two main options for future coal generation:

- *Pulverized coal*, where coal is ground into a fine powder and burned in large boilers to produce steam that turns large generator turbines. The process can be operated at various temperatures and pressures, allowing for supercritical and even ultra-supercritical processes that increase the efficiency of the energy conversion from coal to electricity. Xcel Energy's current technology at Sherco, King and Black Dog is pulverized coal.



- *Integrated Gasification Combined Cycle (“IGCC”) generation*, where coal is converted to a hot gas and cleaned of major pollutants such as sulfur and mercury. The gas is then used to fuel a combined cycle generation facility, resulting in electric generation that is both clean and highly efficient.

The IGCC process is particularly suited for carbon capture and sequestration (“CCS”), as carbon dioxide can be easily separated from the hot coal gas prior to combusting it in a turbine. An overview of CCS is included in Chapter 11, Environment.

Our current estimates indicate pulverized coal with CCS is slightly less expensive than IGCC with CCS. In using this as our base load generic, we are evaluating the lowest cost alternative for base load with carbon capture.

Beyond consideration of capital, O&M, fuel and emissions costs, we are also concerned that coal technology may not offer sufficient dispatch flexibility to handle the growing magnitude of fluctuations in wind generation on our system as the RES is fully implemented over the course of the planning period. Coal units typically have ramp rates that are in the range of 1% to 1.5% of their nameplate rating per minute between minimum load and maximum load set points. Coal unit minimum load set-points range from 20% to 50% of nameplate, depending on the design of the air quality control system being used. For example, a 500 MW coal plant may have a minimum load of 100 MW and would be able to ramp up at the rate of 5 MW per minute. In addition, it can take a day or more to bring a coal plant up to full load from a cold start condition. Natural gas-fired combustion turbines, on the other hand, can normally be at full load from a cold start in 10 to 30 minutes (which results in an effective ramp rate of 3.3% to 10% of their nameplate rating per minute).

We believe that there may be a role for new coal-fired generation in our future resource mix as technologies for efficient generation and CCS evolve.

However, our Plan shows that other strategies, such as wind energy coupled with flexible wind-following resources, provide a more cost-effective path to meeting our energy needs and our environmental goals.

### *Excelsior Energy*

In December 2005, Excelsior Energy proposed the Mesaba project, an innovative energy project that would consist of two 600 MW IGCC plants, to be located in Northern Minnesota. Excelsior also requested that the Commission order Xcel Energy to enter into a contract for the entire 1200 MW of capacity and energy from the facility, based on Minn. Stat. § 216B.1694, and Minn. Stat. § 216B.1693.

The Commission recently determined that the contract proposed by Excelsior Energy is not in the public interest. However, the Commission determined that the parties should pursue further negotiations to see if some agreement could be reached. The Commission also suggested that other utilities would need to consider the possibility of purchasing from Excelsior.

Because the Excelsior project has been subject to separate proceedings which to date have not found it in the public interest, we have not included a purchase in our Preferred Plan. To the extent that further proceedings are relevant to our Preferred Plan, we will file additional details with the Commission at that time.

### **Conclusion**

Our Preferred Plan calls for the addition of 375 MW of intermediate resource and 350 MW of peaking arrangement with Manitoba Hydro and 1,600 MW of intermediate and peaking generation. We believe these resources that allow us to effectively operate our system around the wind, meet our demand on peak days, and have a lower environmental impact than other resource options. Combined with the other components of our Preferred Plan, the addition of these resources provides the lowest cost expansion path for our customers.

Our five-year Action Plan includes the following items related to new resources:

- *Initiate a new proceeding for approval of an arrangement with Manitoba Hydro for 375MW of intermediate resources and 350 MW of peaking beginning through a seasonal diversity agreement beginning in 2015.*
- *Initiate proceedings for up to 320 MW of new peaking resources for 2012 and 600 MW of intermediate resources by 2015.*

**6) Existing Fossil and Refuse  
Derived Fuel Resources**

## 6. Existing Fossil and Refuse Derived Fuel Resources

- *Existing Fossil Fuel Resources comprise a significant portion of our existing fleet. In spite of the age of many of these plants, we believe many of them can continue to operate with normal capital, operating and maintenance expenditures.*
- *Due to the importance of some of these resources, we will install improved environmental controls and also invest in plant upgrades in order to maximize our investments in the plants and the environmental controls. Our environmental and uprate work at our Sherco Plant is one of the most important projects of this type that we will undertake during this planning period.*
- *We will continue to pursue potential repowering and life-extension projects and propose them for implementation, if appropriate. Our Black Dog plant offers one such possibility, and we intend to further study this as a potential future proposal.*
- *We will continue to maintain some plants for quick start, black start and transmission support capabilities.*

Xcel Energy's system meets customers' needs with a combination of nuclear, coal, biomass, hydro, gas and oil fueled generating facilities owned by the Company as well as long-term and short-term capacity purchases from a variety of power suppliers, including wind generators. In total, the system is expected to have about 10,900 MW of capacity resources for the summer of 2008. Coal and biomass resources comprise about 30% or 3,300 MW of that total and oil and gas-fired generating resources comprise about 24% or 2,600 MW of that total. These facilities represent more than half the generating capacity utilized to meet the current needs of our customers.

Maximizing the value of our existing fossil-and biomass fueled resources through investment will ensure they continue to provide low-cost, reliable service to our customers. In this chapter, we describe our existing generating units, present the key issues associated with these resources and express our plans for the future.

Since our last Resource Plan filing in 2004, the Company has conducted a series of evaluations of our aging generating facilities, including the Black Dog Units 3 and 4 coal-fired generators and approximately 1,500 MW of Company-

owned oil and gas-fired combustion turbines that were installed prior to 1980. Based on these evaluations, we plan to study the possibility of repowering Black Dog 3 and 4 as a natural gas-fire combined cycle facility and to retain most of our peaking fleet via capital investments, increased inspection and maintenance. In Appendix F, we further discuss our evaluations. In previous resource plans, we assumed all existing resources would continue to operate throughout the planning period. In this plan, we have either retired resources at their end of life or included specific investments that will permit us to extend the lives of those facilities.

The following sections discuss each of our fossil or biomass-fueled power plants and our intentions for continuing operation of these plants over the planning period.

### Existing Fossil-Fuel Resources

#### *Allen S. King Plant*

The Allen S. King Plant is located on the St. Croix River in Oak Park Heights, Minnesota, just east of the Twin Cities. It is a single-unit coal-fired generating plant burning low sulfur Wyoming coal. The unit provides base load electric service, for the most part operating 24 hours a day, seven days a week. Its current power production capability is 558 MW based on summer ratings.

The original King generating unit went into service in 1968 and served reliably for more than 35 years. Starting in 2005, the King plant was completely rehabilitated with a new steam turbine, a refurbished boiler, and a new state of the art air quality control system as part of the Company's Metro Emissions Reduction ("MERP") projects (Docket No. E002/M-02-633). It was returned to service in the summer of 2007. It is expected to remain in service throughout the entire resource planning period.

*Black Dog Plant*

The Black Dog Plant is located on the Minnesota River in Burnsville, Minnesota, just south of the Twin Cities. It is a coal- and gas-fired generating station. The original Unit 1 boiler/turbine and the Unit 2 boiler, installed in the 1950s and fired on coal, have been replaced with a natural gas combined-cycle unit (Unit 5), which includes a natural gas-fired turbine-generator combined with a heat recovery steam generator. It utilizes state-of-the-art technology for controlling oxides of nitrogen (“NO<sub>x</sub>”) releases. Exhaust heat from Unit 5 powers the Unit 2 steam turbine. The repowering project, completed in the summer of 2002, increased output from the two original units by more than 100 MW, and resulted in greater operating efficiency and cleaner power production.

The current power production capability of the entire plant is 538 MW. Units 2 and 5 are rated at 311 MW. Unit 3, completed in 1955, is 107 MW. Unit 4 is 175 MW and was completed in 1960.

Units 3 and 4 are dual-fuel boilers with steam turbines that currently utilize low-sulfur western coal as the primary fuel. Natural gas is the backup or topping fuel used to obtain maximum generation for both units. Unit 3 and 4 reach the end of their depreciation lives in 2013 and 2014, respectively. Over the past several years the Company has been studying various future scenarios for Black Dog 3 and 4, including their retention as coal units with CAIR-II-related emissions reduction upgrades, repowering a portion of the plant as a natural gas-fired combined cycle facility and outright retirement. The carbon savings achieved by closing Black Dog 3 and 4 could be used to offset increased carbon elsewhere on the system as well as repowering the existing site without increasing our CO<sub>2</sub> emissions.

We intend to develop a detailed study on the potential for retiring and repowering Black Dog in the first half of 2008. At the completion of the study, we will file additional information with the Commission and make any necessary filings to implement our recommendations.

### *High Bridge and Riverside Plants*

These plants are located in Minnesota on the Mississippi River. The High Bridge Plant is near downtown St. Paul and the Riverside Plant is in northeast Minneapolis. Both plants were originally built as coal-fired generating plants. We are currently converting the Riverside and High Bridge plants to combined cycle, natural gas-fueled plants as part of implementing the MERP. This project will result in significant environmental improvements, refurbishment and life extension.

The High Bridge plant is currently expected to return to service as a combined cycle, natural gas-fueled plant in the second quarter of 2008. Not only will the project result in eliminating emissions related to coal and the particulate material associated with coal storage, but it will also provide an increase in net capacity of 268 MW, resulting in a total output of 511 MW. The Riverside plant is scheduled to be out of service from the end of the first quarter of 2009 until mid-second quarter 2009. The change to natural gas generation will result in a net increase in capacity of about 80 MW, for a total output of 439 MW.

### *Sherburne County ("Sherco") Plant*

Sherco is located on the Mississippi River in Becker, Minnesota, which is 45 miles northwest of the Twin Cities. Sherco's size sets it apart from our other generating facilities. Sherco is our largest fossil fueled plant in terms of steam production, power generation capability and coal consumption. Its current total power production capability is 2,400 MW. Unit 1 is rated at 750 MW. Unit 2 is rated at 710 MW and Unit 3 at 880 MW. The plant's typical availability factor of 95% is well above the national average of 78%.



All three units use low-sulfur Western coal from mines in Montana and Wyoming. The plant burns 30,000 tons of coal (three trainloads) every day and more than 9 million tons a year. A rotary car dumper, which literally turns a rail coal car upside down, unloads one car every three minutes and an entire train in just over six hours.

Sherco Units 1 and 2 were built in the mid-1970s to meet the growing demand for electricity and to reduce the use of older, less efficient plants. The plant was constructed on a 4,500-acre site to accommodate future expansion. A third unit was completed in 1987, which at the time marked the largest construction project ever in the state of Minnesota. Unit 3 is 41% owned by Southern Minnesota Municipal Power Agency.

Unit 3's dry scrubber system, which uses a mist of lime slurry in spray dryers to trap sulfur dioxide, is the world's largest air quality system for a single unit. Units 1 and 2 have wet scrubbers, which use an alkaline spray to capture sulfur dioxide and ash. The plant also installed new wet electrostatic precipitator ("ESP") technology on its two older units to reduce particulate emissions. Sherco employs continuous emissions monitors to ensure it operates within state and federal air quality permit limits. As described later in this chapter, the plant will be updated with further emissions controls and additional generation capacity that will extend its life beginning in 2011.

### *Bay Front Plant*

The Bay Front Plant is located on Lake Superior in Ashland, Wisconsin. It is a three-unit generating station that has become a model for the creative use of fuels, including renewable resources. Three boilers burn a variety of fuels including coal, waste wood, railroad ties, discarded tires, natural gas and petroleum to produce steam that drives three turbine-generators to produce electricity.

Bay Front started operation in 1916. A second unit was added in May 1922. A third came on line in 1925, and by 1960 the plant was equipped with five boilers and six turbine generators. Bay Front's three original generating units and two boilers have been retired. Bay Front was the first investor-owned utility operation in the nation to burn wood waste to generate electricity. Its current power production capability is 76 MW with three units in operation. Unit 4 was completed in 1948 and is rated at 23 MW. Unit 5 was completed in 1950 and is also rated at 23 MW. The last unit completed, Unit 6 came on line in 1956 and is rated at 30 MW.

During a major plant improvement project completed in 1991, Bay Front was equipped with an upgraded air quality control system, which includes two gravel bed filters. The gravel bed filters are designed to remove more than 98% of particulate matter. The system contains more than 300 tons of gravel bits, which are electrically charged to collect particulate from flue gas. In 1999, the plant was equipped with auxiliary gas burners to improve operating efficiency while firing on wood. Because of its location, Bay Front runs not only to generate energy, but also to support the stability of Xcel Energy's transmission system in northern Wisconsin.

Xcel Energy will complete NO<sub>x</sub> emission reduction projects on two of its Bay Front boilers that primarily burn wood by the end of 2008. These upgrades should allow the boilers to continue to operate into the foreseeable future.

We have also been studying various alternatives for the third boiler at Bay Front that primarily burns coal. Because of its location and configuration, we believe the Bay Front plant may be well suited to serve as a significant biomass resource. By converting the third boiler from coal to biomass, we could reduce net emissions of criteria pollutants, mercury and CO<sub>2</sub> and help diversify our renewable portfolio. It would also provide an important environmental resource in Wisconsin.

One alternative will consider the implications of using biomass gasification at the third boiler. Gasification may prove to be a superior technology because of its low emissions, relative cost, and suitability for the specific type of cyclone boiler at Bay Front, which cannot effectively burn chipped or shredded wood. If the study demonstrates that biomass gasification is a viable option and the Company converts the plant, Bay Front would become one of the largest biomass-fueled plants in North America. We expect to complete our studies in late 2008, and if feasible, a filing to the Commission describing the findings and recommendations will be made at that time.

### *Red Wing and Wilmarth Plants*

Both plants are located south of the Twin Cities area. The Red Wing plant is located in Red Wing, Minnesota and the Wilmarth plant in Mankato, Minnesota. Both plants have two 10 MW generating units and burn processed municipal solid waste, called refuse-derived fuel (“RDF”).

Both plants were built in the 1940s as coal-fired generating facilities. They were both converted in the late 1980’s to burn RDF. The processed municipal solid waste provides a low-cost fuel alternative to generate electricity and reduces the amount of material going to landfills. Both plants employ scrubbers with fabric filter baghouses to meet their respective emissions permits. The scrubbers treat flue gas with water and hydrated lime, while the baghouses trap particulate by forcing flue gas streams through large filter bags. These systems are considered to be best available control technology (“BACT”), which allows energy production from Red Wing and Wilmarth to be counted toward the RES.

The RDF for both plants is produced at resource recovery facilities in Newport and Elk River, Minnesota. The fuel supply contract for Red Wing and Wilmarth runs through 2012 as does the book life of these facilities. For capacity planning and RES compliance planning purposes, we are assuming

that Red Wing and Wilmarth will be retired at the end of 2012. During the intervening years, we will work to renegotiate fuel supply arrangements and evaluate whether to refurbish these facilities after 2012, or retire them. Such decisions will depend on whether a new fuel supply contract proves to be reliable and cost-effective as well as evaluating the condition of plant equipment. We anticipate providing the Commission with an update on plans for Red Wing and Wilmarth in our next Minnesota Resource Plan filing, presumably in 2009 or 2010.

*French Island Generating Plant*

The French Island Generating Plant is located in LaCrosse, Wisconsin, on the Mississippi and Black rivers. Units 1 and 2 burn wood waste, railroad ties and RDF. Units 1 and 2 combined produce 25 MW. Units 3 and 4 are 1970s-vintage oil-fired combustion turbines. These units each have the capability of producing 72 MW (summer) and 100 MW (winter). The plant was built in the 1940s as a coal-fired generating facility with Units 3 and 4 converted in 1972 to burn oil, a cleaner fuel. However, within two years after the conversion, the oil embargo caused oil prices to significantly increase, and the units were fired less frequently because they had become expensive to operate.

By the early 1980s, we identified a new low-cost fuel in waste wood, and converted Unit 2 to a fluidized bed boiler to burn it. In addition to reducing operating costs, burning wood helped solve a waste disposal problem by using sawdust and wood chips that otherwise would have been buried in a landfill. For similar reasons, in 1987, the Company built a facility adjacent to the generating plant to process municipal solid waste into RDF. The necessary fuel handling modifications were made to the plant and Unit 1 also was converted to a fluidized bed boiler, making both units capable of burning a blend of waste wood and RDF. The conversion helped extend the life of the plant and maintain reasonable electric rates for customers, while resolving a solid waste disposal problem for La Crosse County.

Waste wood is hauled to the plant in trucks and dumped into a receiving hopper. It then is conveyed through equipment that crushes and grinds wood in to small pieces. The fuel is placed in a storage bin until needed in the boiler. French Island's resource recovery facility has the capacity to process more than 100,000 tons of municipal solid waste each year. Garbage trucks dump solid waste on the tipping floor. Front-end loader operators then inspect trash and push it on the floor to a feed conveyor. The RDF processing facility removes recyclable materials and non-combustible items from the waste, then chops and shreds it into a uniformly sized fluffy product that is burned with waste wood. Since 1987, French Island has utilized more than 600,000 tons of RDF and over 1 million tons of waste wood and railroad ties.

Waste wood, railroad ties and RDF contain low levels of sulfur, so sulfur dioxide emissions are minimal. A duct scrubbing system installed in 2002 uses dry lime injection to help further decrease emissions of sulfur dioxide and hydrogen chloride. Over-fire air changes made in 2001 and 2002 improved the combustion process inside the fluidized boiler and help control emissions. Pulse jet baghouses efficiently collect particulate matter, including mercury and dioxin and metals such as lead and cadmium, in order to minimize their release into the air. In 2002, a urea-injection system was installed on both boilers to help reduce emissions of nitrogen oxides.

Units 1 and 2 are considered to meet BACT requirements, thus allowing their energy production to be counted toward RES compliance. The current fuel supply contract for French Island Units 1 and 2 runs through 2023, which is also the end of book life for these units.

There have recently been dioxin emissions exceedances reported for French Island Units 1 and 2 that we are working to address. While the Company has

been testing carbon injection to correct the problem, there is also an effort underway to determine if this is actually an emissions sampling problem rather than an emissions exceedance problem. Dioxin emissions are measured in minute nanogram quantities, so there is some concern that the exceedances actually reflect a measurement error.

French Island Units 3 and 4 have increasingly been dispatched by MISO out of merit order in recent years for the purpose of area support. As these are older combustion turbines, there has been increasing concern about the need for additional maintenance to support such operation. Additionally, we have embarked on an extensive retirement/refurbishment/replacement analysis of our combustion turbine fleet. As shown in Appendix E, Repowering Analyses, we believe that it may be economic to retain French Island 3 and 4, with increased inspection and maintenance, through this planning period.

There is some risk that future inspections will reveal significant problems or that maintenance or emission compliance costs will exceed current projections. However, our current analysis supports retaining French Island 3 and 4, but using increased inspections and maintenance to improve the likelihood of long-term reliability.

#### *Angus Anson*

The Angus Anson plant is located in Sioux Falls, South Dakota. It is a three - unit natural gas peaking facility capable of producing 375 MW in total. The Anson station was formally established in 1994, when two peaking units were installed to provide additional generation to the Sioux Falls area. A third, larger combustion turbine was installed at the site in 2005.

*Other Natural Gas/Oil Combustion Turbine Plants*

We have two plants in Wisconsin that are available to run on either natural gas or oil. The first is a small plant called Flambeau Station that has a summer capacity of 15 MW. The Wheaton plant in Eau Claire has a capacity of 300 MW. Flambeau Station consists of a single 1960s vintage gas-fired combustion turbine. This facility is staffed on a part-time call-in basis. This facility is occasionally dispatched in out of merit order for area voltage support, particularly when low water years reduce the output of nearby Wisconsin hydro plants. Otherwise, the size, age, remote location, and staffing issues would make this plant a retirement candidate. The Arrowhead-Weston transmission project may alleviate the need for Flambeau to run occasionally for area support.

The Wheaton plant consists of 4 dual-fueled (primarily gas) combustion turbines and two oil-only combustion turbines. The combined capacity of these units is 341 MW. Our analysis indicates that retaining the Wheaton units would be economical.

The Inver Hills plant, located in Inver Grove Heights, Minnesota, includes six 1970s-vintage gas-fired combustion turbines with a combined summer capacity of 356 MW. The Company has concluded that it would be economically prudent to increase inspections and maintenance of these generating units in an attempt to keep them in service throughout the planning period rather than retiring them and implementing a repowering project at the site. Although little data exists on the expected reliability of combustion turbines that are more than 30 years old, we intend to retain the units with increased inspection and maintenance, as this should be cost-effective, given the significantly higher replacement cost.

The Blue Lake plant, located in Shakopee, Minnesota, includes four 1970s-vintage oil-fired combustion turbines with a combined summer capacity of 173 MW and two large gas-fired combustion turbines that were installed in 2005 with a combined capacity of 318 MW. Similar to the Inver Hills facility, we believe that it may be prudent to try to retain the older oil-fired Blue Lake combustion turbines, using increased inspections.

The Key City plant is located on the same site as the Wilmarth RDF plant in Mankato, Minnesota. Key City consists of four 1960s vintage gas-fired combustion turbines with a combined capacity of approximately 60 MW. We have recently removed Unit 2 from service due to damages that are cost prohibitive to repair. Plant personnel dispatched from the Wilmarth RDF plant currently operate the remaining units. Currently it is cost effective to continue to operate Units 1, 3 and 4 until 2020. If operations at Wilmarth change in the future, we will need to evaluate the economics of maintaining operations at Key City.

The Granite City plant, located in St. Cloud, Minnesota, consists of four 1960s-vintage gas-fired combustion turbines with a combined capacity of 61 MW. Preliminary inspections and economic evaluations have led us to conclude that Granite City could potentially be retained through the planning period with increased inspections and maintenance. Given its relative proximity to the Sherco and Monticello generating plants, Granite City is key to the Company's system restoration plan in the event of operational issues. As noted previously, little data is available on the expected reliability of such older combustion turbines. As a result, we expect to conduct further system restoration studies over the next several years to determine if newer combustion turbines with black start capability, located in the area near the Sherco and Monticello plants, would be justified from a reliability standpoint.



The West Faribault plant, located near Faribault, Minnesota consists of two 1960s vintage combustion turbines that were retired at the end of 2006. West Faribault Unit 2 experienced a catastrophic mechanical failure in 2006, and we decided to retire both units at that site. Residential development encroachment around the small plant site has led us to conclude that repowering at this location is not feasible.

For planning purposes, we have assumed all other plants except as noted will continue to operate at current levels with normal capacity, operation, and maintenance costs through the planning period.

### **Sherco Environmental/Uprate Project**

As part of our 2005-2019 Resource Planning Process, we proposed a capacity upgrade for our Sherco plant. At that time we identified the Sherco uprate project at an additional 70 MW. On January 2, 2007, we filed our Preliminary Plans for an Emissions Reduction/Uprate Project at our Sherco Plant. The uprate was proposed at an additional 140 MW. In our January plan, we included proposed emissions reductions projects for NO<sub>x</sub>, SO<sub>2</sub>, Mercury, and Particulate Matter. We also stated that it was our goal to maintain carbon neutrality with this plan.

Due to our Changed Circumstances filing, we delayed filing a more complete plan that was originally due on September 1, 2007. The detailed Sherco Uprate and Emissions Control Plan will be filed before the end of the year. In this filing, we will discuss specific proposals for maintaining the carbon neutrality of this project. As noted previously in this chapter, retirement and, or repowering at Black Dog 3 and 4 could potentially provide offsets for the increased carbon anticipated from this project. Another potential solution would be to administratively limit the generation on one or more of our coal units. However, because MISO currently dictates the dispatch of those units, we would require additional study to determine whether an administrative limit

## Existing Fossil and Refuse Derived Fuel Resources

would be enforceable.

The current proposal is an upgrade in capacity of approximately 80 MW that breaks down by unit as follows:

Unit 1 – 44 MW

Unit 2 – 25 MW

Unit 3 – 17 MW, of which 59% is the Company's portion.

The total cost of the Sherco upgrades is \$238 million, which provides not only the approximate 80 MW of increased capacity and energy, but an overall efficiency improvement of 1.1% for the facility. The efficiency improvements means that the Sherco facility will be able to generate an additional 136 GWh per year without increasing the amount of coal that is being burned. The proposed environmental improvements as discussed in the Sherco Plan are shown in the chart below.

Table 6-1

| Sherco Emissions Reductions     |            |            |            |      |
|---------------------------------|------------|------------|------------|------|
|                                 | Current    | After      | Difference |      |
| Element                         | Tons/Year  | Tons/Year  | Tons/Year  | %    |
| NO <sub>x</sub> (Tons/Year)     | 17,870     | 10,790     | -7,080     | -40% |
| SO <sub>2</sub> (Tons/Year)     | 18,580     | 10,660     | -7,920     | -43% |
| Total PM (Tons/Year)            | 1,470      | 1,300      | -170       | -12% |
| Mercury (Lbs/Year)              | 760        | 110        | -650       | -85% |
| CO <sub>2</sub> (Tons/Year) (*) | 13,700,000 | 14,000,000 | 300,000    |      |
| CO <sub>2</sub> Offsets         |            |            | -300,000   | 0    |

Note: (\*) These numbers represent an estimate of our Sherco-specific emissions assuming current capacity factors that may or may not reflect actual system operations.

The uprates and environmental improvements to Unit 3 are proposed for 2011 followed by Unit 2 in 2012 and Unit 3 in 2013.

### Fossil Fuel Efficiency Standards

In Docket No. E-999/CI-06-159 (In the Matter of Commission Investigation and Determination under the Electricity Title, Section XII, of the Federal Energy Policy Act of 2005), the PUC required the Company to file information describing how we are planning to address fossil fuel efficiency to meet the goals of this standard. It specifically requested that we provide information on the following:

- a. The heat rates of existing plants;
- b. Their efforts to maintain or improve heat rates over time; and
- c. Modeling runs(s) of ways to improve the heat rates of either the largest existing or the lowest heat rate generation plants.

#### *Heat Rate Data*

Heat rate data for the Company's owned generating units is provided publicly in our annual report to the Commission, Appendix I.

#### *Heat Rate Testing*

We formed a Performance Monitoring group in 2000 to measure the heat rates of our generating units and to make specific recommendations for improving plant performance. Since that time the Company has undertaken an extensive effort to conduct heat rate tests at our largest generating plants (> 200 MW) every other year and to test our smaller generating plants every 5 years.

So far, the Company has tested all of our coal-fired generating units except High Bridge Unit 5, which is scheduled for demolition as part of MERP. The RDF-fired generating units at the Red Wing and Wilmarth plant sites have not yet been tested because their respective remaining lives were uncertain until their fuel supply contract was extended through 2013 last year. All makes and models of the Company's owned combustion turbines have been tested, but not every generating unit at each plant site.

Looking forward, the Company plans to continue our cycle of heat rate testing at our fossil-fueled plants and will evaluate whether such testing is prudent at its nuclear plants. Heat rate measurements are typically taken at 4 or 5 operating points, including turbine throttle valves wide open. Nuclear plant operators prefer to keep those generating units in full-load, steady state operation, unless there is a contractual or legal obligation to do otherwise. For this reason, we have not yet determined whether we will conduct heat rate tests on our nuclear generating units.

### *Heat Rate Improvement Projects*

While the Performance Monitoring group identifies potential heat rate improvement opportunities and validates actual performance enhancements as part of its heat rate testing and reporting protocol, we do not look at heat rate improvements in isolation when considering plant improvement projects. Rather, we perform a collective assessment of potential safety, efficiency, and environmental performance improvements as well as overall economics in developing our generation asset management objectives.

The results of using this more expansive collective approach to asset management and budgeting include the implementation of the Black Dog combined cycle project, MERP projects at the High Bridge, Riverside, and King plants and the development of the proposed Sherco upgrades project. We will also consider heat rate improvements in our study of Black Dog Units 3 & 4. All plant uprate projects have or will improve the thermal efficiency of generation and reduce emission rates at those plant sites.

### **Conclusion**

Our existing fossil-fueled fleet has served the Company and our customers well over the years. Even with upgrades, environmental improvements and other life extending measures, these plants will continue to be low cost resources for our customers.

## Existing Fossil and Refuse Derived Fuel Resources

Our five-year Action Plan includes the following related to existing fossil and refuse derived fuel resources:

- *Pursue capacity expansion at our three Sherco coal-fired units.*
- *Investigate and pursue repowering as appropriate to retain and maximize the value of our existing fleet.*



## 5. Renewables

- *We will need to acquire approximately 2,600 MW of additional wind energy by 2020 to meet renewable energy requirements in our jurisdictions, including the Minnesota RES.*
- *To meet the first milestones of the RES, we will solicit proposals for new wind resources of up to 500 MW. Overall, our goal is to have roughly one-third of all RES-eligible wind resources provided by each of the following: C-BED, Independent Power Producers (“IPPs”), and utility-owned projects.*
- *Key challenges to meeting the RES are adequacy of transmission, management of intermittency, availability of equipment and cost increases in equipment/installation.*

In this chapter, we review Xcel Energy’s current renewable resources, including Windsource (our green pricing program) and wind and biomass resources currently on our system, the Minnesota RES and our plans for compliance, including our efforts to achieve a balanced portfolio of utility owned, C-BED, third-party purchases, and our assumptions and analysis regarding wind pricing and the cost impacts for our system. Appendix D provides a summary of Renewable Development Fund activity.

### Current Renewable Resources

#### *Wind*

Xcel Energy began contracting for wind resources in 1993, pursuant to our 1991 Resource Plan to develop at least 50 MW of wind energy by 1997. Since then, in response to various mandates, PUC requirements and all-source bid selections, we have contracted for over 1000 MW of wind on our system. These contracts range from projects that are smaller than 2 MW to the newly inaugurated, 200-MW Fenton project developed by enXco. Currently, there are no Company-owned wind resources operating on our system, although our proposal for the 100-MW Grand Meadow wind farm is pending.

#### *Hydro*

The Company owns 248 MW of hydroelectric generation in Wisconsin and 12 MW at St. Anthony Falls in Minnesota. We assume continued operations for

all of these facilities through the planning period. In addition, Xcel Energy purchases 18.4 MW of small hydro from other parties.

### *Biomass*

Biomass resources include the wood-fired portion of generation from the Bay Front plant, refuse derived fuel-fired generation from the Red Wing, Wilmarth and French Island plants, and landfill gas-fired generation from the Burnsville, Flying Cloud and Pine Bend landfills. Xcel Energy also contracts with St. Paul Cogen, Fibrominn, and Laurentian Energy Authority for biomass energy. The District Energy of St. Paul's waste wood-fired generator, which began operating in early 2003, produces 25 MW. Fibrominn, LLC produces 50 MW of biomass generation using poultry litter and went into commercial service in August 2007. The Laurentian Energy Authority, an LLC jointly owned by the cities of Hibbing and Virginia, produce 35 MW of energy in two plant facilities that attained commercial biomass operation on December 31, 2006. All but 30 percent of these biomass resources are secured through PPAs with third parties.

### *Windsource*

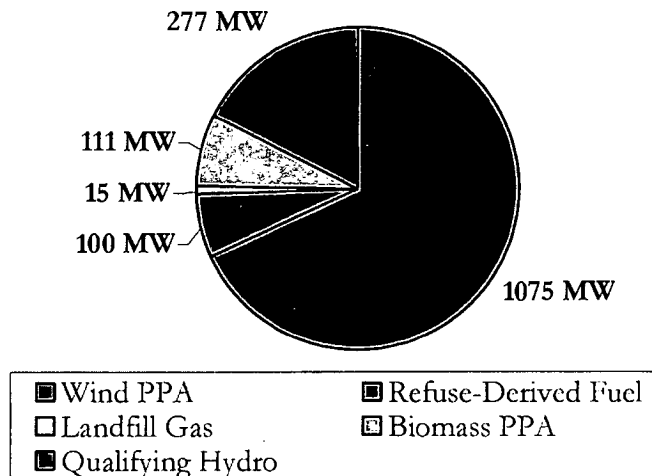
We offer our customers an opportunity to purchase additional wind energy under a green pricing program to meet their electric needs. Xcel Energy began offering the Windsource program in March of 2003. During the first year over 21,000 MWh of wind energy was purchased under this program with over 8,200 customer subscriptions. So far in 2007, we have supplied over 72,700 MWh to 23,000 customers. The Company has certified about 40 MW of wind generation under the program. We expect additional resources will need to be added to the program in the 2008-2009 timeframe.

### *Summary of Current Renewable Resources*

We show our portfolio of currently operating renewable resources in Figure 5-1.



**FIGURE 5-1**  
**PROJECTED 2007 YEAR-END RENEWABLE SUPPLY MIX**



In addition to these resources, we currently have either under contract or in the contracting process approximately 220 MW of wind resources that are planned to come on-line by the end of 2008.

### **Renewable Energy Standard Requirements**

Xcel Energy and the State of Minnesota have a long history of encouraging and supporting development of renewable energy. Xcel Energy began contracting for wind in conjunction with our 1991 Resource Plan. State mandates were imposed during the 1994 Minnesota Legislative Session, stemming from its consideration of additional spent-fuel storage at the Prairie Island nuclear generating plant. The Minnesota Legislature slightly expanded these mandates in 2003. Combined, these mandates required Xcel Energy to secure 1125 MW of wind resources and 110 MW of biomass resources.

In 2001, the Legislature implemented a Renewable Energy Objective (“REO”) for all Minnesota public utilities, requiring a good-faith effort to supply at least one percent of retail energy sales from eligible renewable resources by 2005,

and increasing that amount by one percent per year until the utility supplied 10 percent of retail energy sales using renewable energy by 2015.

More recently, the 2007 Minnesota Legislature adopted a RES, the most aggressive state requirement for renewable energy in the nation. For Xcel Energy, this standard requires that 30 percent of retail sales must be supplied by qualifying renewable sources by 2020. Of this 30 percent, wind resources must supply 25 percent of retail sales. Other qualifying renewable resources can supply the remaining five percent. In addition to the 2020 requirement, Xcel Energy is also required to meet the following interim renewable goals:

2010 – 15%

2012 – 18%

2016 – 25%

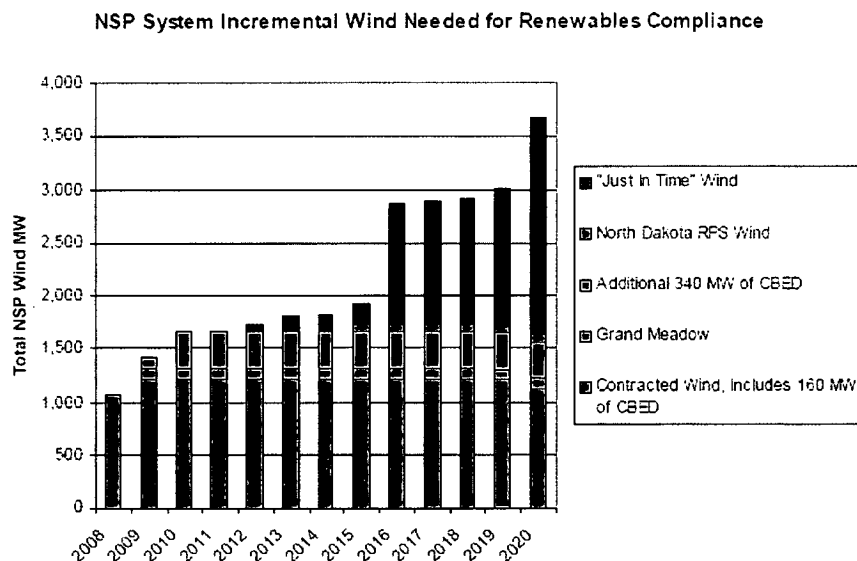
Since we already obtain nearly five percent of our retail sales from biomass and hydroelectric energy either on our system or under contract, our compliance with the RES will stem from new wind resources unless any of these arrangements with other resources change; for example, if we were unable to renew fuel contracts at our refuse derived fuel facilities.<sup>1</sup>

The following chart demonstrates the wind additions that would be required for Xcel Energy to exactly meet the interim goals represented by the RES.

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<sup>1</sup> The RES statute provides that we can meet interim milestones with any qualified renewable resources; however, by 2020, 25 percent of our retail energy sales must be supplied by wind.

**FIGURE 5-2**  
**WIND REQUIRED TO MEET**  
**RES MILESTONE REQUIREMENTS**



As demonstrated above, a compliance strategy that would meet our wind requirements would result in us adding several hundred MW in years just prior to milestones, and lower amounts in interim years. This strategy would place an unnecessary strain on resources such as turbines, construction labor and transmission in certain years. We believe that the market will develop in a more efficient manner if we spread our requirements out more evenly over the compliance window. This approach will allow for orderly development of wind farms and provide for stability in the marketplace that will encourage the establishment of sustainable manufacturing and labor pools.

Assuming our ability to cost-effectively comply with the RES, Xcel Energy will have among the highest penetration of renewable resources on our system of any non-hydro utility by 2020. Wind penetration (based on nameplate capacity) will approach 25 percent of peak demand, and overall (wind, biomass and small hydro) penetration will be approximately 30 percent, not including purchases from Manitoba Hydro.

## Renewable Energy Plan

As part of legislation enacted in 2007, the Company is required to prepare Renewable Energy Plans (“REP”) detailing how we propose to meet the RES, including the amounts of renewables that we expect to own, to contract for and to obtain from C-BED projects. We supplied the first of these Plans to the Commission on December 10, 2007; this Plan will be updated in each subsequent Resource Plan. The REP sets forth the Company’s plan for the acquisition of resources to fulfill the RES. We summarize important elements of that plan below.

### *REP Overview*

Xcel Energy is committed to complying with the RES in an effective and efficient manner. We support the goal of securing an environmentally sound energy future for the state, and we believe it can be accomplished at a reasonable cost to our customers. While some effort and planning is required to initiate our compliance strategy, our vision is to ensure that projects are developed in an efficient and cost-effective manner.

We believe that capitalizing on the various strengths of market participants is necessary to achieving this goal. We thus commit to working toward a robust marketplace where all market participants – C-BED, IPPs and utilities – contribute to our compliance plan. In our unique role as both a potential owner of wind resources and the entity subject to the RES compliance requirements, we believe we must work to eliminate various barriers to timely, cost-effective wind development that will benefit all market participants.

To be successful, we believe this role entails:

- *Expanding transmission availability through the planning, coordinating, proposing, and constructing of new transmission facilities needed to support the substantial wind and other renewable resources required for RES compliance.* Transmission

Xcel Energy  
2007 Resource Plan

availability is a key factor in the cost-effective development of wind resources and is needed to ensure developments can continue to occur in prime wind areas of the state. The development of additional transmission resources is critical to the success of utilities' resource plans, both to minimize the cost of wind resources through the elimination or reduction of curtailment payments to producers, and to avoid the need for expensive contingency plans of additional resources in the event the renewable resources are not available to meet growing customer needs. The Biennial Transmission Plan, submitted to the Commission by the Minnesota utilities, provides additional information on how we plan to fulfill this important role. Further, as a transmission-owning member of MISO, we believe our active participation in various stakeholder groups can help address various issues that have developed regarding the queue and obtaining timely transmission access.

- *Ensuring sufficient peaking and intermediate resources and other ancillary services are available in a timely and coordinated manner to support the integration of wind on our system and within the MISO region.* The intermittent nature of wind resources requires supportive, ancillary services to follow the generation and instantaneously provide generation services as wind resource production rises and falls. While we expect to rely on wind resources to meet growing energy needs, wind is less valuable for meeting capacity needs. Ensuring that there is sufficient capacity to meet load is obviously key to providing reliable service and will also provide the system flexibility to accommodate these high percentages of wind penetration. We expect to require the addition of significant peaking and intermediate resources to support the wind additions, a significant change from our 2004 Resource Plan, where base load resources were needed. We believe that a strong, coordinated effort to bring needed peaking resources to market is critical to our ability to cost-effectively comply with the RES.

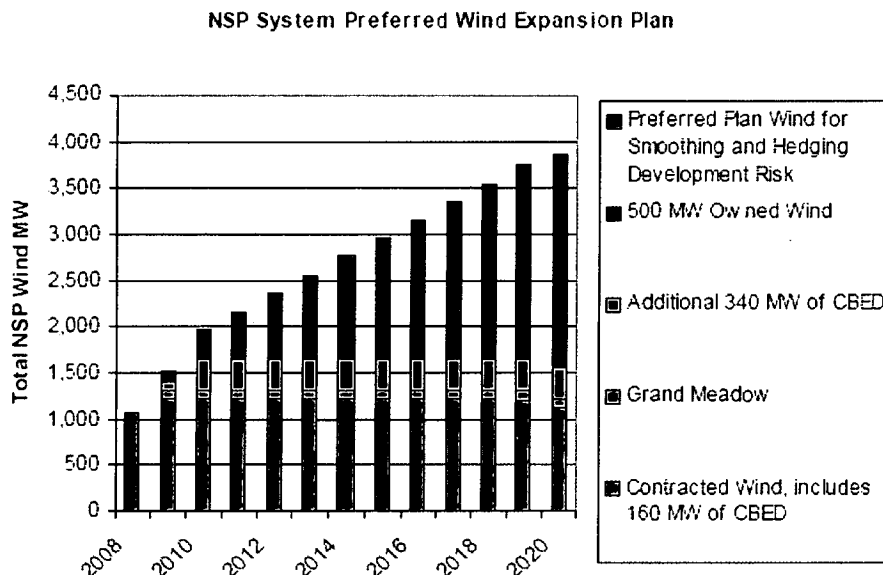
- *Owning a share of the new wind resources to achieve a reasonable balance among providers and portfolio diversity.* Our current portfolio of wind resources is exclusively PPAs with third-party providers. To obtain balance in the RES portfolio, we believe concentrated efforts to expand our ownership of wind resources are appropriate and necessary to minimize customer costs and ensure compliance. As a goal, we believe utility ownership should make up approximately half of the new wind resources required for compliance by 2020; achieving this goal would result in our ownership of approximately one-third of all the wind resources needed for RES compliance. We believe this balanced portfolio offers benefits to all stakeholders. We further believe we can expand utility ownership in partnership with other market participants, for example, as a potential investor in C-BED projects or through additional build-transfer arrangements with developers. In this way, we believe our plan will capitalize on the strengths of each market participant while ensuring compliance is achieved at reasonable costs for our customers.
- *Supporting continued expansion of the C-BED program through fulfillment of our 500 MW commitment, additional targeted solicitations over time, and potentially as a developer/partner.* We support the objective of creating and retaining local benefits through wind development, as envisioned by the C-BED statute. Our plan reflects this commitment through continued efforts to secure C-BED resources for our system, and it envisions that C-BED will provide roughly one-third of the new wind resources required to meet our RES requirements.

Given that competition for quality wind resources will be aggressive as regional utilities seek to comply with new state requirements, we believe it is important to pursue developments even in advance of the milestones required by the RES. This approach will help ensure that we obtain attractive project sites on behalf of our customers, thus minimizing overall costs. Further, because we have limited experience in owning wind resources through build-transfer or C-

BED models, we believe acquiring additional market information now is critical to our long-term success in achieving these goals. Finally, given uncertainty regarding its continuation, we believe it appropriate to seek to obtain wind resources in advance of potential expiration of the PTC to obtain those benefits and lower overall customer costs.

We thus believe that development and acquisitions should be pursued along the following timeline:

**FIGURE 5-3**  
**DEVELOPMENT AND ACQUISITION TARGETS**



Our Renewable Energy Plan, submitted on December 10, 2007, provides greater detail and an action plan for our RES compliance.

### Impacts and Costs Assessment

To assess the impact of the RES on our system and overall Resource Plan, we performed various analyses, which we summarize below.

*Operation of Wind on our System*

Adding wind resources to the level of 25 percent or more of our system energy requirements will require operational changes. It is already becoming increasingly important to look at how best to manage both variable wind resources and dispatchable resources including how to manage the transmission grid to accommodate the variability of wind output in such a way that we ensure reliable and cost-effective service to our customers. As a result, our expansion plan around the RES contains more flexible, gas-fired resources rather than less flexible, base load resources. However, even these more flexible resources can be subject to startup costs, minimum loadings and ramping requirements that do not allow us to fully follow the wind. For that reason, we are also exploring other methods of ensuring smooth operations for a system that has a high penetration of wind resources.

*Wind Dispatch and Curtailment*

One idea that can be examined is the integration of wind resources with our real-time operations to allow for real-time dispatch of wind resources at some levels. Every day, our customers' demand for electricity increases in the morning, drives toward a peak in the late afternoon to early evening, and then decreases. Often, wind patterns show increasing generation at the same time that load is dropping. This mismatch creates a load-following burden on the system and could cause the system to lean on neighboring utilities. By integrating signals from the real-time operations to the wind turbine regulating system, we could ease this load-following burden at times when traditional generation has trouble keeping up with the changes in load and wind generation, rather than implementing large-scale curtailment of wind generation.

*Wind Storage*

In addition, the Company is currently examining methods to store wind energy. In a storage system, wind energy is captured when it is available and converted to potential energy that can be released when it is needed. Appendix E



presents in greater detail two technologies that we are currently evaluating – battery storage and wind energy producing hydrogen -- along with a discussion of other potential storage technologies.

The development of such creative solutions will be more easily accomplished if the Company has the flexibility to plan for and add these resources when economic over the long run, even if they raise costs in the short run compared to traditional resources. We believe that the operational flexibility that will be needed to accommodate these high levels of wind on our system is likely to be most effectively managed through controls and solutions implemented by the Company, as we have the ultimate responsibility for balancing reliability and cost.

#### *Wind Cost Evaluation*

For this Resource Plan cycle, the Company plans to increase total installed wind capacity from the current 1,000 MW to approximately 4,000 MW by 2022. The cost effectiveness of this level of wind resource depends highly on the continuation of the PTC, the operational and market experience associated with higher wind penetration levels, technological advancements and the cost of additional transmission resources. To test the cost impacts on our system, we performed Strategist modeling, as outlined below.

In the Preferred Case, projected energy production from all Xcel Energy owned or purchased renewable resources were included in the assessment. Assuming that all of the wind and biomass generation presently under contract comes on line as scheduled, the Company will need to acquire the addition of 2600 MW of wind generation by 2020 to serve our Minnesota customers.

In our Preferred Case, Xcel Energy included additions of wind generation sufficient to comply with the RES. We then compared this case with one in which no new wind is added through the planning period. The addition of the RES wind reduces our capacity need by the equivalent of one combustion

turbine in 2013. In the “no-new-wind” case, approximately half of the energy that would have been produced by the RES wind is replaced by natural gas generation, and the other half is replaced by coal generation.

Based on our modeling results, the case with the RES wind has a lower PVRR than the “no-new-wind” case if we assume that the PTC continues until 2015. If the PTC were not in place, then the “no-new-wind” case has a lower PVRR:

**Table 5-1**  
**Wind Cost Evaluation**

|                     | PVRR       | Difference from “No New Wind” Case |
|---------------------|------------|------------------------------------|
| RES wind with PTC   | 60,054,763 | (538,182)                          |
| No Wind with PTC    | 60,592,946 |                                    |
| RES without PTC     | 60,891,089 | 233,786                            |
| No Wind without PTC | 60,667,303 |                                    |

Xcel Energy intends to meet our RES requirement, provided the cost and reliability impacts remain reasonable, as provided by the statute. In this Resource Plan, Xcel Energy projected wind costs of \$58.50/MWh for 2010 – 2015 and \$78/MWh for 2015 through the end of the planning period. These estimates assume:

- Improvements in technology that will drive costs below current costs (absent the PTC),
- A charge for ancillary service costs for wind that begins at \$0.88/MWh in 2009 and grows to \$6.56/MWh by 2020, based on the Minnesota statewide wind penetration study completed in 2006, and
- Continuation of the PTC through 2015.

Xcel Energy believes that these costs reasonably reflect the future price of wind generation for planning purposes. However, our analysis confirms that assumptions regarding the PTC greatly influence the cost-effectiveness of RES compliance. For example, RES compliance may not be the lowest cost option compared to either the median or high gas case if we assume current wind prices absent the PTC. However, the RES statute focuses on whether the costs of compliance result in a significant rate impact. Therefore, an RES-compliant plan that is slightly more expensive than the theoretical low-cost plan may still be considered reasonable, not impose a significant cost impact, and not trigger consideration of modification of the standard.

All of this assessment indicates, as the RES statute envisions, that the overall cost and reliability impacts of RES compliance need to be monitored on an ongoing basis as the market evolves and issues such as the life of the PTC are determined. Meanwhile, as outlined in our Renewable Energy Plan, we intend to manage this situation as effectively as we can in the near term, and plan to add as much PTC-qualifying wind as possible between now and our next Resource Plan. We will bring the issue of the cost effectiveness of wind back to the Commission if the PTC is not extended.

The cost-effectiveness of wind and our ability to meet the RES also depend on the availability of transmission to deliver wind energy from remote generation sites to load centers such as the Twin Cities Metro Area. If sufficient transmission is not available, wind energy may be subject to curtailment at a considerable cost to our customers. As noted in the pending Biennial Transmission Plan and our accompanying Renewable Energy Standards Report (filed November 1, 2007 and summarized in Chapter 12, Transmission,) we recognize that there needs to be additional transmission for wind above the levels that will be achieved through projects currently under consideration in recent and pending transmission certification cases, such as the CapX 2020 proposal. We also note the difficulties of achieving new wind outlet capacity that requires upgrades on the systems of other utilities. Thus, we are

proceeding with studies to help identify the level of investment needed to allow incremental increases in transmission capacity for wind resources in the intermediate term. In addition, we are working with MISO on a study of another higher voltage outlet line from this region. While these issues are important to our Resource Plan and ability to comply with the RES, they are the key focus of other proceedings, and we will work to coordinate our planning and acquisition strategies through those efforts.

#### *Renewables and DSM Cases*

Minn. Stat. § 216B.2422, subd. 2 requires that a utility must, in its Resource Plan, file a plan for obtaining 50 and 75 percent of its new and refurbished resources capacity needs from renewable resources and demand-side management. This requirement, which preceded the RES and other recent major legislative initiatives, ensured that utilities seriously considered the role renewables and DSM could play in their resource mixes, and appropriately evaluated the associated costs.

With the passage of the RES, it appears that this requirement has become somewhat redundant. Based on our analysis of our preferred plan, we find that in excess of 100 percent of our incremental energy needs in this plan are being supplied by new renewable energy, because wind offsets energy from existing resources. Supplying less, as the 50 and 75 percent scenarios contemplate, would not fulfill the requirements of the new RES and DSM statutes; thus, we did not perform separate analyses of these scenarios.

#### *Renewable Contingency Plan*

The RES sets an aggressive goal that we are committed to achieving. That said, it is only prudent that we recognize the possibility that we will be unable to implement all of the wind energy needed to fulfill our RES requirements, or that the economics will change and the costs of compliance would no longer be reasonable. The RES provides that we continue to monitor the costs and progress through implementation through each Resource Plan, and provides

two specific mechanisms to assist if we are unable to meet the RES through our Renewable Energy Plan. First, the legislation required the Commission to establish a trading system for renewable energy credits (“RECs”). In recent proceedings in Docket No. E999/CI-04-1616, the Commission established the Midwest Renewable Energy Tracking System (“MRETS”) as the means for tracking RECs and set out the basis for a system that would allow for trading over a broader regional area. If Xcel Energy is unable to meet the RES through our Plan, our first contingency for compliance will be to attempt to purchase RECs to meet the RES. Since we have a specific wind energy requirement for RES compliance, we assume that we would need to specifically purchase wind RECs.

The second mechanism provided by the RES legislation is the ability for the Commission to modify or delay a utility’s RES requirement based on the following considerations:

- (1) The impact of implementing the standard on its customers’ utility costs, including the economic and competitive pressure on the utility’s customers;
- (2) The effects of implementing the standard on the reliability of the electric system;
- (3) Technical advances or technical concerns;
- (4) Delays in acquiring sites or routes due to rejection or delays of necessary siting or other permitting approvals;
- (5) Delays, cancellations, or non-delivery of necessary equipment for construction or commercial operation of an eligible energy technology facility;
- (6) Transmission constraints preventing delivery of service; and
- (7) Other statutory obligations imposed on the commission or a utility.<sup>2</sup>

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<sup>2</sup> The Commission may modify or delay the RES under provisions (1) to (3) if it finds that compliance would cause significant rate impacts, require significant measures to address reliability, or raise significant technical issues. The Commission may modify or delay the RES under clauses (4) to

We believe that our ongoing planning efforts, required updates to the Renewable Energy Plan, and future Resource Plans will ensure that these factors are evaluated and offer the opportunity for parties to comment on our progress toward compliance and whether any modifications are necessary or appropriate.

To examine the effect on our preferred plan of a failure to meet the RES, we developed a scenario where we only achieved 75 percent of our RES requirement – that is, a total of 3,100 MW of renewable resources as opposed to 4,000 MW. Because the wind is providing more energy than capacity value, the model only adds 160 MW of additional capacity to replace the lost wind. However, energy use from coal and gas facilities increases.

The PVRR of the above case, where we only achieve 75 percent of our RES targets, is higher than our preferred plan by over \$261,000,000 assuming the PTC is continued. In the absence of the PTC, the PVRR of the 75 percent achievement case is slightly lower than the preferred plan by around \$50,000,000.

## **Conclusion**

Xcel Energy is committed to meet all of our renewable requirements. We recognize that continued monitoring of our progress toward compliance and impacts on reliability and costs will need to be monitored on an on-going basis, as transmission access, the life of the PTC, and potentially other issues may significantly influence our ability to achieve compliance. We are undertaking efforts to address these issues; however, as contemplated by the RES, on-going monitoring and continued evaluation of the cost and reliability impacts of the RES will be important.

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(6) only if it finds that the circumstances described in those sections were due to circumstances beyond an electric utility's control.

Our five-year Action Plan includes the following with respect to renewable energy:

*Plan to install sufficient renewables to meet the RES, while continuing to evaluate the cost effectiveness of wind in our future Resource Plans.*

#### **4) Modeling and Preferred Plan**



#### 4. Modeling and Preferred Plan

- *The Company proposes a Preferred Plan that meets the projected need, maintains fuel diversity, addresses the state's environmental leadership and provides reasonable costs to consumers. Our Preferred Plan relies on increased wind and DSM, expanded output from our existing nuclear and coal-fired plants, purchases from Manitoba Hydro, and new peaking and intermediate resources to meet our customers' growing needs.*
- *Scenario analysis demonstrates that the Preferred Plan is robust under various assumptions and forecast uncertainties.*

#### Strategist Resource Planning Model

This chapter introduces the Strategist resource planning software, evaluates the resources available for capacity expansion, and presents the details of the Company's preferred Plan. Xcel Energy has used the "Strategist" model in our Resource Plans since 2000. Strategist is used to estimate the cost of resource expansion plans and to evaluate specific capacity alternatives. In prior Resource Plans, Strategist played a central role in helping identify and refine resource options. In this Plan, Strategist's role continues to be important; however, major resource decisions in this Plan result from only the RES, the conservation/DSM goals, the new limits on greenhouse gas emissions -- and Xcel Energy's commitment to implement these bold initiatives. For example, given the likelihood of future carbon regulation, we have only modeled a future coal-based resource option that includes carbon capture and storage.

The Strategist Model is also used to test the reasonableness and the robustness of this resource plan. We work to carefully and accurately characterize our current system and to develop assumptions that best reflect our expert opinion of likely future conditions. Strategist, in turn, helps with the analysis of the myriad of options and "what if" scenarios that must be a part of a robust planning regime.

The model consists of four primary components.

- *Load Module* that contains Xcel Energy's load forecast, load management, and conservation programs. This module produces long-range estimates of the Company's net energy requirements and peak capacity requirement.
- *Generation Module* that contains the operating costs and performance characteristics for our thermal units, renewable resources, and transactions. This module uses an hourly dispatch simulation to estimate how demand will be met and what the associated costs and emissions will be.
- *Capital Project Module* that estimates the revenue requirement for capital projects such as new generating resources. This module keeps track of rate base, depreciation, taxes, and rate of return for existing and future capital projects.
- *Expansion Planning Module* that uses a dynamic programming algorithm to derive the least cost expansion plan possible. This module calculates the customer and societal costs for thousands of different resource combinations to arrive at the least cost plan.

For each expansion plan, Strategist calculates fuel consumption, fuel costs, O&M costs, emission rates, capital costs, and total revenue requirement. The total system costs are reported as the net present value of revenue requirements or "PVRR." This value is the sum of all operating, depreciation, return on rate base, and tax costs, less any revenues from sales discounted back to 2008 using the Company's most recently authorized weighted after tax cost of capital of 7.42%.

By using Strategist, we can demonstrate to the Commission, Department and other stakeholders, that our Plan will meet customer needs under a variety of conditions at a reasonable cost. Strategist tests our Plan under a number of possible futures and allows us to select a robust Plan that reflects our vision

and meets all of our current and expected future legal and regulatory requirements.

### **Baseline Assumptions**

Although the planning period in this report covers 2008-2022, Strategist analysis covers 2008-2047 and our reported PVRR values correspond to this time period. The longer time interval allows us to better estimate the costs and benefits of the long-lived resources proposed in this plan. Other important assumptions include:

#### *Forecast*

- We plan to meet the 90% probability level of forecasted peak demand, and the 50% probability level of forecasted energy requirements. The forecast has been offset by our DSM goal of 1.1% energy savings.

#### *Existing Fleet*

- Cost and performance assumptions are consistent with historical data.
- Costs are escalated based on corporate estimates of expected inflation rates.
- Continued operation of our Sherco and King generating stations throughout the study period.
- Retirement of our Prairie Island nuclear generating station at the end of its proposed license renewal (2034, 2035), and retirement of Monticello at the end of its current license (2030).
- Retirement of other facilities at their current expected end of life if within the resource planning period, unless we have specifically included costs of life extension.
- Continuation of our existing power purchase contracts until their contractual termination dates.
- Continued operation of Xcel Energy's hydroelectric resources based on historical performance.

*Renewable Energy*

- Addition of renewable energy resources capable of generating at least 11,500 GWh of eligible energy by 2020 in order to meet our requirement to generate at least 30% of our energy from renewables by that date.
- Accreditation of wind resources in accordance with MAPP rules and based on historical performance (12.5% average), and capacity factors based on hourly wind speed data from the 2006 Minnesota Wind Integration Study.
- Extension of the Federal Production Tax Credit through 2015.
- Additional ancillary service charges for wind based on the 2006 Minnesota Wind Integration Study.

*Emissions*

- Emission rates for existing and planned resources consistent with historical and expected performance.
- Cap and trade permit systems for SO<sub>2</sub>, NO<sub>x</sub>, and Mercury, consistent with the Clean Air Interstate Rule (“CAIR”) and CAIRM
- \$20/ton charge for CO<sub>2</sub> starting in 2010 and escalating at 2.5% per annum with alternative scenarios showing a \$9/ton value and a \$40/ton scenario
- Externality scenario analysis uses the Commission’s updated high and low externality value. In these scenarios, our \$20/ton value for CO<sub>2</sub> replaces the Commission’s value but the Commission’s value for NO<sub>x</sub> is not used in favor of the forecasted value of NO<sub>x</sub> permits under CAIR.

Strategist uses generically defined resources to meet future demand when existing resources fall short. The Company used the following generic resources as model inputs for this Resource Plan:

- 160 MW gas-fired Combustion Turbine peaking unit (CT)
- 600 MW gas-fired Combined Cycle intermediate unit (CC)

- 500 MW Super Critical Pulverized Coal base load unit with partial carbon sequestration (SCPCwSEQ)
- 100 MW Wind project (Wind)

The CTs become available for inclusion in the expansion plan starting in 2012, CCs 2013, SCPC 2015, and Wind 2009. Cost and performance data for these units are based on a consultant's estimates and internal company data.

### Reference Case

To develop the Company's preferred resource expansion plan, we first construct a Reference Case to provide a basis for comparison. The Reference Case uses our baseline assumptions, including the wind that will be needed to meet the RES. It does not include upgrades at the Sherco and Nuclear Plants or the extension of the Manitoba Hydro Contract. The Reference Case, however, does assume that Prairie Island is extended through 2033 and 2034. Although we will be asking for specific approval in this plan and later filings to extend the licenses at Prairie Island, we have assumed life extension for the reference case because the impact of removing Prairie Island from the system dwarfs the effect of all other resources we are considering for inclusion in the preferred plan combined. In Chapter 8 of this plan, we will analyze the effect of Prairie Island shutdown and demonstrate that life extension is in the public interest.

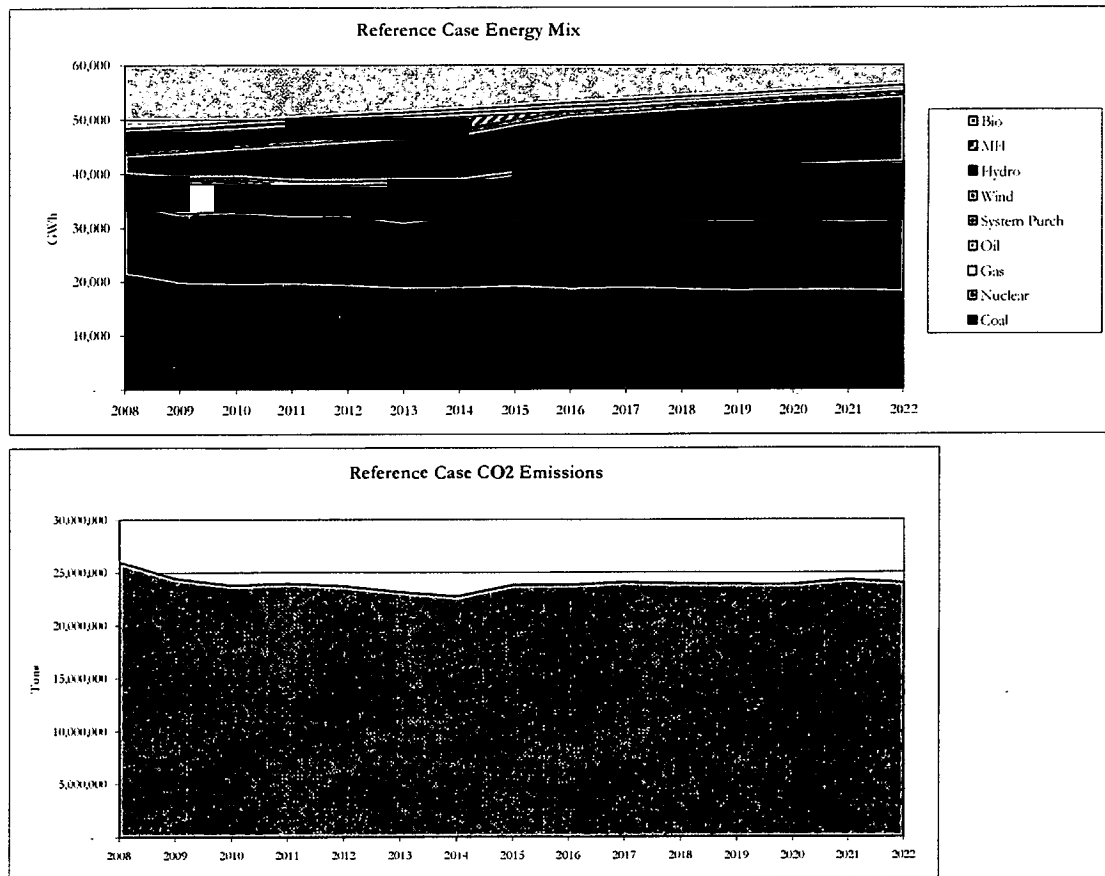
The expansion plan resulting from the Reference Case includes no new base load plants, 3,800 MW of gas fired units, and 2,400 MW of generic wind additions. Higher capital costs and high penetrations of wind energy combine to make base load alternatives, such as coal, economically unattractive. Gas units are the only other generic options available to the model because wind additions are "hard coded" into Strategist to ensure all expansion plans comply with the RES. The RES requires us to maintain a wind penetration of 25% of retail energy, which is the highest penetration of wind energy required in the country and the limits of what was studied in the Minnesota Wind Integration

Study. Because we are still unsure about the operational impacts of this amount of wind on our system, we did not permit the reference model to select any more wind above the RES requirements. Table 4-1 summarizes the reference case. Figures 4-1 and 4-2 show the reference case energy mix and CO<sub>2</sub> emissions respectively.

Table 4-1

| Reference Case |                   | PVRR                 | \$62,679,487 (\$000) |                                              |                                            |
|----------------|-------------------|----------------------|----------------------|----------------------------------------------|--------------------------------------------|
|                | Planned Additions | Combined Cycle       | Combustion Turbine   | Pulverized Coal<br>With CO2<br>Sequestration | Wind Additions                             |
| 2008           |                   | High Bridge CC 624MW |                      |                                              |                                            |
| 2009           | Rahr 12MW         | Riverside CC 508MW   |                      |                                              | 100MW<br>CBED 209MW<br>Grand Meadows 100MW |
| 2010           |                   |                      |                      |                                              | 200 MW                                     |
| 2011           |                   |                      | 160 MW               |                                              | 200MW<br>CBED 200MW                        |
| 2012           |                   |                      | 640 MW               |                                              | 200 MW                                     |
| 2013           |                   |                      | 160 MW               |                                              | 200 MW                                     |
| 2014           |                   | 600 MW               |                      |                                              | 200 MW                                     |
| 2015           |                   | 600 MW               |                      |                                              | 200 MW                                     |
| 2016           |                   | 600 MW               |                      |                                              | 200 MW                                     |
| 2017           |                   |                      |                      |                                              | 200 MW                                     |
| 2018           |                   | 600 MW               |                      |                                              | 200 MW                                     |
| 2019           |                   |                      |                      |                                              | 200 MW                                     |
| 2020           |                   |                      |                      |                                              | 200 MW                                     |
| 2021           |                   |                      |                      |                                              |                                            |
| 2022           |                   | 600 MW               |                      |                                              | 100 MW                                     |

Figures 4-1 and 4-2



### Sensitivity Analysis

To determine how changes in our assumptions impact the costs or characteristics of different resource plans, we examine our plans under a number of scenarios. If a plan is extremely sensitive to changes in assumptions, it is not a robust course of action for the Company to pursue. Instead, we may propose an expansion plan that is less sensitive to assumption changes, but slightly more costly in the baseline scenario. For this Resource Plan, we tested the following scenarios.

- *Load.* The base forecast (unadjusted for DSM) has an average energy growth rate of 1.14%. The energy growth rate was adjusted down to average 1% and was also adjusted up to average 1.3%.

- *Fuel Cost.* The cost of natural gas, coal, and nuclear fuel were all independently adjusted up and down by 20%.
- *Externalities.* The Commission's low and high externality values were added to test the societal impacts of each expansion plan. However in place of the Commission's values for NO<sub>x</sub> the forecasted CAIR permit price was used and the Company's baseline CO<sub>2</sub> hedge value of \$20/ton was used in place of the Commission's CO<sub>2</sub> value.
- *CO<sub>2</sub> Values.* The CO<sub>2</sub> hedge values were varied down to \$9/ton and up to \$40/ton.
- *MISO.* Due to the unpredictability of future market conditions, Xcel Energy models itself as a stand-alone system without additional purchases and sales from the MISO day two market. In our sensitivity analysis, Strategist's Network Economy Interchange ("NEI") submodule was activated to simulate how the system might interact with the rest of MISO. However, this sensitivity requires highly speculative assumptions about supply and demand conditions in the rest of the market. The Company recommends that these results should be viewed as an estimate of one possible outcome, but not a precise prediction of what will occur in the future.
- *Capital Cost Escalation* – The base assumption in Strategist is that the cost of capital projects will increase at 1.88%. 3% and 5% cost escalation scenarios were also run to evaluate expansion plan sensitivity to escalation assumptions.

Strategist does have some limitations. Although it uses hourly information, it is not a chronological model. Hourly patterns for energy demand are rearranged into load duration curves and thermal dispatch simulations are based on these curves. This allows us to quickly simulate several years of operation on our system, but the model loses the ability to capture some operational detail, such as the ramp rates on our generating units. This makes it difficult for us to use the model to evaluate the benefits of quick start combustion turbines. Also, Strategist uses a simplified approach to modeling load and wind patterns.



Instead of using an hourly pattern that covers every hour in an entire month, we model a typical week in that month that the model repeats several times to simulate the entire month.

### **Additional Expansion Plan Alternatives**

In developing our preferred plan, we have identified a number of resources in addition to our generic resources that could be added to our system to meet future resource needs. Many of these resources, such as our Sherco and Nuclear upgrades and the Manitoba Hydro contract, were discussed in our 2004 Resource Plan. Others, such as Black Dog repowering, are new to this plan.

#### *Life Extension Projects*

The Company has the opportunity to extend the life of some of its peaking facilities by making relatively modest capital investments. Key City, Granite City, Blue Lake, Wheaton 5&6, and French Island 3&4 are all candidates for life extension. This option will reduce the need for new gas fired generation by 556 MW during the planning period and will cost approximately \$166 million or \$299/kW, as opposed to \$578/kW for a new combustion turbine.

#### *Sherco Upgrades*

Various options for increasing capacity and improving efficiency at the Sherburne County coal plant have been identified. The preferred option will add approximately 80 MW and cost \$238 million.

#### *Monticello Upgrade*

An opportunity to increase capacity is also available at the Monticello nuclear facility. This option will add 68 MW and cost \$82 million.

#### *Prairie Island Upgrades*

The upgrade option at Prairie Island will add 170 MW and cost \$291 million.

*Manitoba Hydro*

While our Resource Plan no longer indicates a need for additional base load resources beyond investments in our existing fleet, it does indicate substantial need for peaking and intermediate resources. Our analysis confirms that a purchase from Manitoba Hydro is a cost-effective resource and fills an important need for intermediate resources during the planning period. Because the underlying nature of the identified need has substantially changed from the 2004 Resource Plan, we propose to close the on-going proceeding and initiate a new proceeding pursuant to the two-track resource acquisition process approved by the Commission in conjunction with our prior Plan. We believe this new process would be more efficient were we to complete contract negotiations and initiate the new proceeding with the filing of a proposed purchased power agreement. We expect to make such a filing by Fall 2008. We present in greater detail our proposal for addressing the ongoing proceeding under separate cover, as required by the Commission's Order in Docket Nos. E-002/RP-04-1752, E-002/M-07-2, and E-002/CN-06-1581.

*Black Dog Repowering*

With Black Dog units 3 and 4 nearing the end of their book lives, we have identified a possible opportunity to retire those units and replace them with natural-gas fired generation, similar to our MERP conversions at High Bridge and Riverside. This could be done in the 2013-2015 time frame. Further studies are needed to identify the exact costs and configurations of such a proposal, which is currently modeled based on our estimate of generic costs.

*LMS 100*

The generic combustion turbine modeled in Strategist is based on a GE F type unit. These are reliable low cost units that are currently used in Xcel Energy's system and will continue to play an important role. However, these units do not have quick start capability and are only able to be run on natural gas unless additional investments are made to permit them to run on fuel oil. The

Company believes that the addition of one or more LMS 100s (or similar units) would significantly improve system reliability. These units' ability to start quickly is expected to become increasingly valuable as wind resources are added to our system. In addition to natural gas, LMS 100s can be run on fuel oil or bio-diesel. However, these units are more costly than F type machines, and it is difficult to quantify their economic value to system operation until we gain more experience with the operation of large amounts of wind energy on our system.

### *Demand-Side Management*

We assumed, as our baseline, that we would achieve a 1.1% reduction in retail sales due to DSM programs. An alternative 1.3% scenario that will reduce peak demand by 323 MW by the end of the planning period and would increase revenue requirements by \$799 million or an equivalent capacity cost of \$2,476/kW.

### **Alternatives Analysis**

To evaluate the cost effectiveness of these alternatives, each was added separately to the reference case in the year that the resource is proposed. Strategist then calculated a least-cost expansion plan for each alternative. Finally, each expansion plan was evaluated using scenario analysis.

Table 4-2

Reference Case PVRRs and Alternative PVRR Differences (\$millions)

|                                        | Base Assumptions | Low Load | High Load | Coal + 20% | Gas + 20% | Nuclear + 20% | Coal-20% | Gas-20% | Nuclear-20% | Externalities High | Externalities Low | CO2 \$9 | CO2 \$40 | MISO ON | Capital Cost ccs15% | Capital Cost ccs15% |
|----------------------------------------|------------------|----------|-----------|------------|-----------|---------------|----------|---------|-------------|--------------------|-------------------|---------|----------|---------|---------------------|---------------------|
| Reference Case                         | 61,843           | 60,604   | 63,374    | 62,772     | 64,580    | 62,183        | 60,901   | 59,898  | 61,572      | 61,985             | 62,049            | 57,351  | 70,011   | 61,695  | 63,273              | 66,604              |
| Ref. Case plus Peakers                 | (353)            | (348)    | (353)     | (350)      | (375)     | (349)         | (350)    | (327)   | (349)       | (350)              | (350)             | (348)   | (379)    | (341)   | (334)               | (295)               |
| Ref. Case plus Sherco Upgrades         | (86)             | (74)     | (100)     | (73)       | (170)     | (86)          | (99)     | (20)    | (86)        | (85)               | (85)              | (114)   | (53)     | (45)    | (87)                | (157)               |
| Ref. Case plus Monticello Upgrade      | (197)            | (179)    | (216)     | (202)      | (272)     | (185)         | (193)    | (140)   | (208)       | (198)              | (199)             | (158)   | (295)    | (167)   | (199)               | (201)               |
| Ref. Case plus Prairie Island Upgrades | (523)            | (496)    | (546)     | (528)      | (647)     | (503)         | (508)    | (406)   | (533)       | (521)              | (522)             | (433)   | (698)    | (478)   | (510)               | (488)               |
| Ref. Case plus Manitoba Hydro          | (170)            | (157)    | (178)     | (169)      | (273)     | (166)         | (162)    | (73)    | (166)       | (168)              | (168)             | (118)   | (269)    | (133)   | (160)               | (142)               |
| Ref. Case plus Black Dog               | (263)            | (295)    | (209)     | (315)      | (38)      | (259)         | (188)    | (447)   | (259)       | (274)              | (280)             | (159)   | (480)    | (342)   | (290)               | (357)               |
| Ref. Case plus LMS 100                 | 107              | 108      | 107       | 107        | 100       | 107           | 107      | 116     | 107         | 107                | 107               | 109     | 90       | 115     | 104                 | 96                  |
| Ref. Case plus DSM 1.3%                | (642)            | (644)    | (634)     | (647)      | (811)     | (642)         | (635)    | (541)   | (642)       | (643)              | (644)             | (556)   | (782)    | (630)   | (669)               | (726)               |

Our analysis shows that nearly all of the resources we evaluated have lower PVRRs than the reference case under most scenarios analyzed. The scenario where PVRR differences are the narrowest is the one where we assumed that gas prices would be 20% lower than our forecast; we do not consider this a likely scenario in the future.

The only alternative that does not result in a lower PVRR generally is the LMS 100. Because of the higher capital costs, we predicted that the LMS 100 would appear slightly more expensive than the GE F type CT in Strategist. This is because Strategist is not a chronological model and cannot capture the quick start benefits of the LMS 100. Also, Strategist cannot effectively model the benefits of the LMS 100s dual fuel capability, because it assumes that gas is always available. In reality, natural gas used for electric generation is sometimes curtailed in favor of residential and industrial use. In such situations, an LMS 100 would still be able to provide peaking capacity to the system and provide a significant improvement to reliability in the winter months.

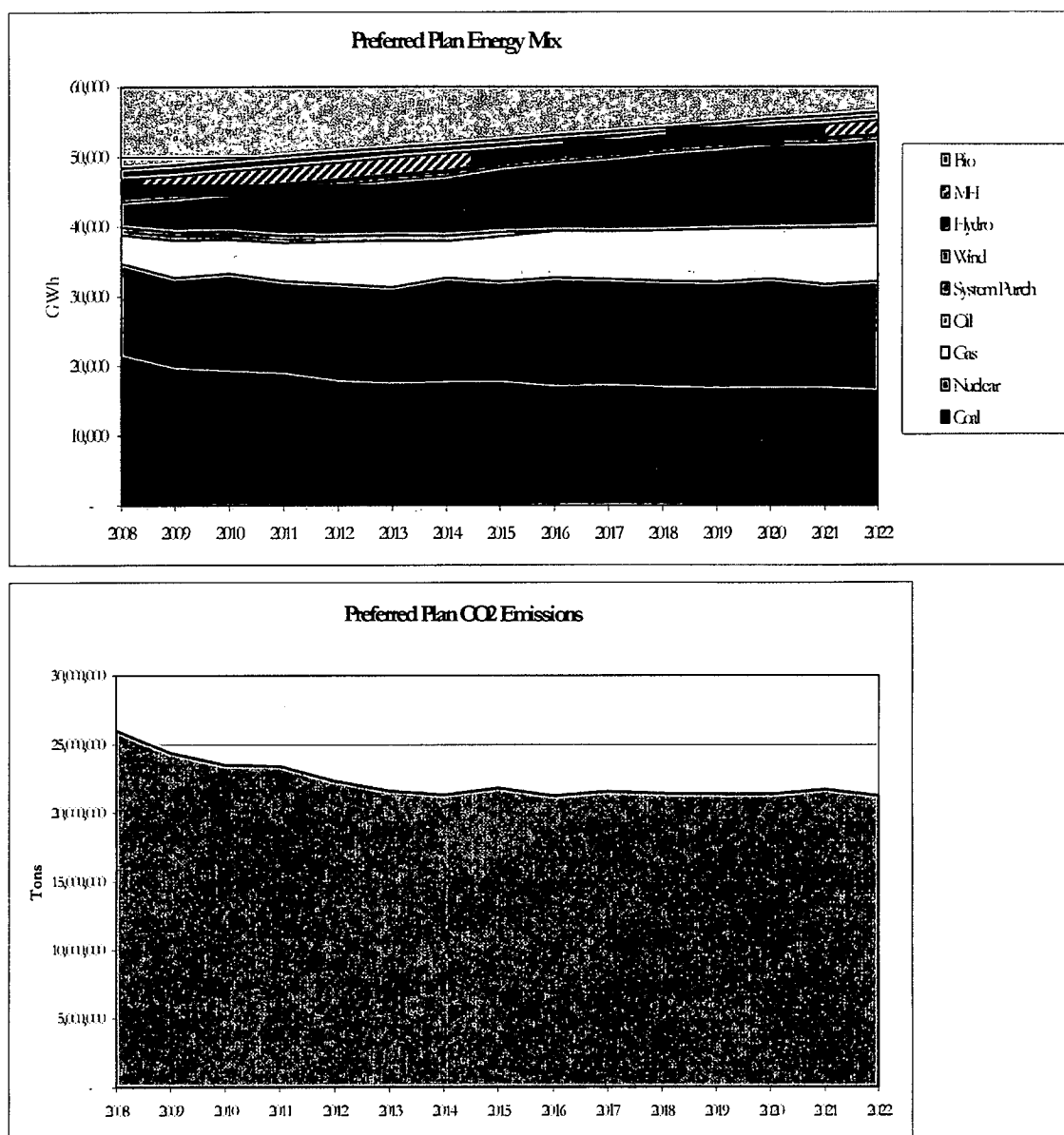
### **Preferred Plan**

Our Preferred Plan assumes that we extend the lives of our peaking facilities, complete the Sherco and Nuclear Upgrades and extend our contract with Manitoba Hydro. We have also included the possibility of repowering Black Dog in our preferred plan, although further study will be needed to determine the actual costs and benefits of this proposal and whether it is the appropriate course of action. The Preferred Plan reduces the Reference Case PVRR by \$1,788 million. The Plan also reduces carbon emissions by more than 20% from our 2005 levels and maintains the Company's fuel diversity.

Table 4-3

| Preferred Plan |                                                             | PVRR                 | \$60,054,763       | (\$000)                                      |                                            |
|----------------|-------------------------------------------------------------|----------------------|--------------------|----------------------------------------------|--------------------------------------------|
|                | Planned Additions                                           | Combined Cycle       | Combustion Turbine | Pulverized Coal<br>With CO2<br>Sequestration | Wind Additions                             |
| 2008           |                                                             | High Bridge CC 624MW |                    |                                              |                                            |
| 2009           | Rahr 12MW                                                   | Riverside CC 508MW   |                    |                                              | 100MW<br>CBED 209MW<br>Grand Meadows 100MW |
| 2010           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2011           | Monticello 68MW                                             |                      | 160MW              |                                              | 200MW<br>CBED 200MW                        |
| 2012           | Sherco 2 30MW<br>Sherco 3 10MW                              |                      | 320 MW             |                                              | 200 MW                                     |
| 2013           | Sherco 1 44MW<br>PI 1 83MW                                  | Black Dog 300MW      |                    |                                              | 200 MW                                     |
| 2014           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2015           | Manitoba Hydro 375MW<br>Manitoba Hydro DIV 350<br>PI 2 87MW | 600 MW               |                    |                                              | 200 MW                                     |
| 2016           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2017           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2018           |                                                             | 600 MW               |                    |                                              | 200 MW                                     |
| 2019           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2020           |                                                             |                      |                    |                                              | 200 MW                                     |
| 2021           | Manitoba Hydro 125MW                                        |                      |                    |                                              |                                            |
| 2022           |                                                             | 600 MW               |                    |                                              | 100 MW                                     |

Figures 4-3 and 4-4



To test the value of each alternative within the Preferred Plan, we repeated our analysis and subtracted each alternative from the overall Plan in order to calculate its impact.

Table 4-4

## Preferred Plan PVRRs and Alternative PVRR Differences (\$millions)

|                                          | Base Assumptions | Low Load | High Load | Coal + 20% | Gas +20% | Nuclear+20% | Coal-20% | Gas-20% | Nuclear-20% | Externalities High | Externalities Low | CO2 \$9 | CO2 \$40 | MISO ON | Capital Cost excl 5% | Capital Cost incl 5% |
|------------------------------------------|------------------|----------|-----------|------------|----------|-------------|----------|---------|-------------|--------------------|-------------------|---------|----------|---------|----------------------|----------------------|
| Preferred Plan                           | 60,055           | 58,829   | 61,572    | 60,925     | 62,657   | 60,423      | 59,187   | 58,272  | 59,759      | 60,179             | 60,235            | 55,808  | 67,691   | 59,981  | 61,498               | 64,871               |
| Pref. Plan minus Peakers                 | 460              | 462      | 460       | 460        | 481      | 460         | 460      | 439     | 460         | 460                | 460               | 460     | 474      | 456     | 442                  | 396                  |
| Pref. Plan minus Sherco Upgrades         | 196              | 183      | 214       | 183        | 283      | 196         | 210      | 124     | 196         | 196                | 195               | 225     | 157      | 144     | 191                  | 182                  |
| Pref. Plan minus Monticello Upgrade      | 333              | 325      | 342       | 338        | 377      | 321         | 328      | 285     | 344         | 334                | 334               | 294     | 410      | 301     | 332                  | 328                  |
| Pref. Plan minus Prairie Island Upgrades | 589              | 571      | 610       | 599        | 689      | 574         | 580      | 486     | 603         | 591                | 592               | 504     | 752      | 546     | 575                  | 543                  |
| Pref. Plan minus Manitoba Hydro          | 235              | 233      | 235       | 239        | 310      | 235         | 231      | 155     | 235         | 236                | 236               | 185     | 326      | 210     | 231                  | 214                  |
| Pref. Plan minus Black Dog               | 982              | 1,009    | 947       | 1,033      | 804      | 982         | 918      | 1,126   | 982         | 996                | 1,002             | 884     | 1,186    | 1,015   | 1,007                | 1,065                |
| Pref. Plan with DSM 1.3%                 | (547)            | (545)    | (546)     | (554)      | (720)    | (547)       | (541)    | (444)   | (547)       | (549)              | (550)             | (457)   | (707)    | (528)   | (580)                | (647)                |



This analysis demonstrates that not only is each element of the Preferred Plan cost effective on its own, but that the Plan also minimizes PVRP in its entirety.

We believe that our Preferred Plan provides a robust resource expansion Plan that meets our customers needs as well as all of our statutory and regulatory requirements at a reasonable cost. Our Plan does not rely on any single technology or fuel and in fact will add at various times new energy and capacity fueled by wind, hydro, coal, gas and nuclear energy. The Plan performs well under every scenario analyzed and performs particularly well under scenarios where the cost of carbon regulation is at \$20 or higher.

### **Effect of the Preferred Plan on Rates**

Although significant new resources will need to be added to our generation system, the rate impacts are expected to be moderate. The resources acquired through our preferred plan would increase the generation and fuel components of customer bills by an average annual compound growth rate of approximately 2.7%. The production portion represents roughly 66% of our total bill today and is estimated to make up about 67% of the total bill in 2022, demonstrating that our plan will keep production costs relative to the total bill relatively stable over this period. Overall bills, including projections of our increasing transmission and distribution costs, are expected to grow by roughly 3% to 4% each year from where they are today. Notably, these increases are based on sales growth that is somewhat lower than in previous years due to our increased DSM initiatives. Because of these efforts, many customer bills are not likely to increase at the same pace as our rates.

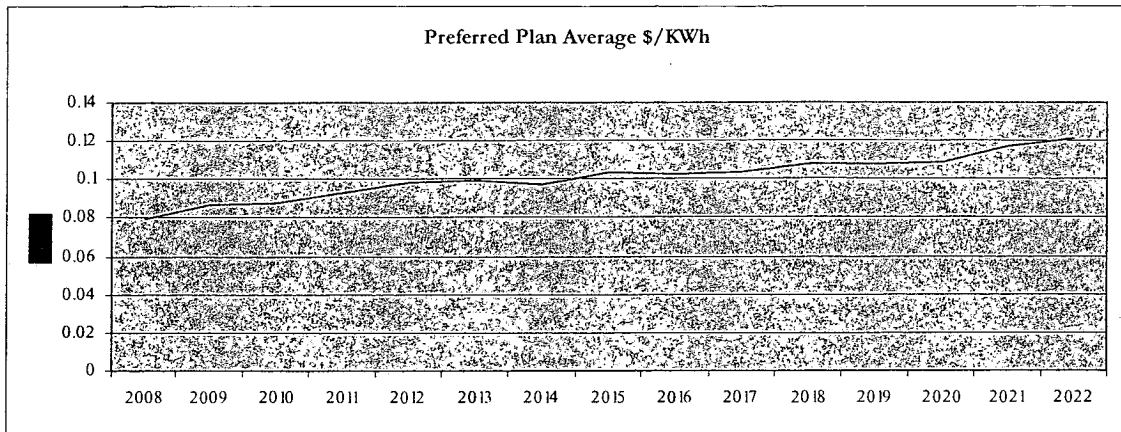
Key to our rate assumptions is the continuation of the PTC through 2015. Because of the ten-year credit period, the PTC will provide substantial savings to customers. For owned wind alone, the PTC value exceeds \$1 billion (in nominal dollars) over the planning horizon. Purchased wind has the PTC embedded in its price and the PTC is equally important in keeping that price

reasonable as the we move forward with a plan to meet 25% of our energy needs with wind resources.

An important element of this plan is that fuel and purchased energy costs associated with the resources anticipated to be added through this Resource Plan remain stable as a proportion of the total price for electricity, even though production costs as a percent of the total bill increases slightly. In 2009 estimated fuel and purchased energy accounts for approximately 24% of average rates for our customers and remains at this level through 2022. This reflects a resource expansion plan that is balanced between capital intensive additions such as owned wind and nuclear and Sherco upgrades combined with additions that are not as sensitive to fuel cost changes, such as purchased wind and our Manitoba Hydro agreement.

The growth in revenue requirements is driven by multiple factors including rate base depreciation, O&M, and fuel costs. To simplify the analysis, we used the average of all plant remaining lives to calculate the depreciation rate on generation of roughly 20 years. This approach implicitly captures much of potential impact of the Prairie Island life extension. The transmission upgrades are based on a five-year forecast of capital expenditures and capture the average growth over that period with subsequent years increased for inflation. Our distribution cost estimate was based on our 2008 budget and increased based on capital needs to meet customer growth and inflation. Attachment C provides greater detail on the rate impacts of the Plan.

Figure 4-5



### Reserve Margin Analysis

As we discussed in Chapter 2, we currently plan to obtain sufficient capacity to meet all of our projected needs plus a 15% MAPP reserve margin. In the past year, there has been much discussion and change among Midwest utilities with respect to reserve margins. In addition, the MAPP Planning Reserve Sharing Group (“PRSG”) and the Midwest Reliability Organization (“MRO”) have been looking at new planning reserve margin rules for our region.

We currently plan to obtain sufficient capacity to meet all of our projected needs plus a 15% MAPP reserve margin. In the past year, there has been much discussion and change among Midwest utilities with respect to reserve margins. In addition to the PRSG, the MRO is in the process of developing new resource adequacy standards for our region that will likely go into effect toward the end of 2008. To this end, MISO is preparing changes to module E of their Tariff to incorporate enhanced resource adequacy requirements and the Midwest PRSG has been formed by utilities seeking to create a uniform planning reserve margin for the entire Midwest. These developments will likely necessitate our withdrawal from MAPP sometime next year.

Xcel Energy became a member of the Midwest PRSG in May 2007. The Midwest PRSG is currently conducting a study to set reserve margin

requirements for member utilities. It is conducting loss of load expectation (LOLE) studies to determine the reserve margin that would allow each utility to maintain a reliability level of no more than one day's interruption of service in ten years. This analysis will have a slightly different basis from the MAPP reserve requirements:

- the reserve requirement would be based on our 50% forecast of uninterrupted load, rather than our actual peak load measured after the fact, and
- the requirement would be based on maximum dependable capability (MDC) instead of Uniform Rating of Generating Equipment (URGE). For many Xcel Energy units the URGE rating, which estimates the theoretical maximum of units, is considerably higher than the units' MDC.

Early indications are that the reserve margin resulting from this study will be lower than the 15% reserve margin currently required. However, the MDC ratings of units are also lower than our URGE ratings. Between the reduction in reserve margin, the use of MDC to measure capability and its application to our 50% forecast, we expect an overall reduction in our planning reserve requirement but do not yet have enough information to calculate an estimate. In order to evaluate the impact of changing reserve margins on our future resource requirements, we evaluated our Resource Plan using reserve margins of 12% and 15% based on our median (50/50) peak forecast and our unit MDCs. We also evaluated whether under this new arrangement, we can still rely on our short-term purchases to meet our long-term need.

With continued short-term purchases, if either of the new standards were agreed upon, we would need to slightly readjust our Preferred Plans as follows.

Table 4-5

2007 Preferred Plan - 15% Reserve Margin at 50% Peak Forecast \$59,609,095 (\$000)

|      | Planned Additions                                              | Combined Cycle       | Combustion<br>Turbine | Pulverized<br>Coal With CO <sub>2</sub><br>Sequestration | Net Wind<br>Additions                               |
|------|----------------------------------------------------------------|----------------------|-----------------------|----------------------------------------------------------|-----------------------------------------------------|
| 2008 |                                                                | High Bridge CC 624MW |                       |                                                          |                                                     |
|      |                                                                |                      |                       |                                                          | 100MW<br>CBED<br>209MW<br>Grand<br>Meadows<br>100MW |
| 2009 | Rarh 12MW                                                      | Riverside CC 508MW   |                       |                                                          |                                                     |
| 2010 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2011 | Monticello 68MW                                                |                      | 160MW                 |                                                          | 200MW<br>CBED<br>200MW                              |
| 2012 | Sherco 2 30MW<br>Sherco 3 10MW                                 |                      |                       |                                                          | 200 MW                                              |
| 2013 | Sherco 1 44MW<br>PI 1 83MW                                     | Black Dog MERP 300MW |                       |                                                          | 200 MW                                              |
| 2014 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2015 | Manitoba Hydro<br>375MW<br>Manitoba Hydro DIV<br>350 PI 2 87MW | 600 MW               |                       |                                                          | 200 MW                                              |
| 2016 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2017 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2018 |                                                                | 600 MW               |                       |                                                          | 200 MW                                              |
| 2019 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2020 |                                                                |                      |                       |                                                          | 200 MW                                              |
| 2021 | Manitoba Hydro<br>125MW                                        |                      |                       |                                                          |                                                     |
| 2022 |                                                                | 600 MW               |                       |                                                          | 100 MW                                              |

Table 4-6

2007 Preferred Plan - 12% Reserve Margin at 50%  
Peak Forecast

\$59,220,974

(\$000)

|      | Planned Additions                                                       | Combined Cycle          | Combustion Turbine | Pulverized Coal With CO <sub>2</sub> Sequestration | Net Wind Additions                            |
|------|-------------------------------------------------------------------------|-------------------------|--------------------|----------------------------------------------------|-----------------------------------------------|
| 2008 |                                                                         | High Bridge CC<br>624MW |                    |                                                    |                                               |
| 2009 | Rarh 12MW                                                               | Riverside CC<br>508MW   |                    |                                                    | 100MW<br>CBED 209MW<br>Grand Meadows<br>100MW |
| 2010 |                                                                         |                         |                    |                                                    | 200 MW                                        |
| 2011 | CBED<br>200MW<br>Monticello<br>68MW                                     |                         | 160MW              |                                                    | 200 MW                                        |
| 2012 | Sherco 2<br>30MW<br>Sherco 3<br>10MW                                    |                         |                    |                                                    | 200 MW                                        |
| 2013 | Sherco 1<br>44MW<br>PI 1 83MW                                           | Black Dog MERP<br>300MW |                    |                                                    | 200 MW                                        |
| 2014 |                                                                         |                         |                    |                                                    | 200 MW                                        |
| 2015 | Manitoba<br>Hydro<br>375MW<br>Manitoba<br>Hydro DIV<br>350 PI<br>2 87MW |                         |                    |                                                    | 200 MW                                        |
| 2016 |                                                                         | 600 MW                  |                    |                                                    | 200 MW                                        |
| 2017 |                                                                         |                         |                    |                                                    | 200 MW                                        |
| 2018 |                                                                         |                         |                    |                                                    | 200 MW                                        |
| 2019 |                                                                         |                         |                    |                                                    | 200 MW                                        |
| 2020 |                                                                         |                         | 160 MW             |                                                    | 200 MW                                        |
| 2021 | Manitoba<br>Hydro<br>125MW                                              |                         |                    |                                                    |                                               |
| 2022 |                                                                         | 600 MW                  |                    |                                                    | 100 MW                                        |

## MISO Market

As a member of MISO, Xcel Energy participates in a large market that provides for economic dispatch of units across the region and permits us to buy and sell energy on a real time and advance basis to help us in meeting our customer needs at the lowest possible cost.

Although we have access to this large and sophisticated market, we believe it is prudent to plan our system in a conservative manner such that we are

proposing to specifically install or acquire long-term resources to meet our customer needs. This appears to be even more critical with the possibility that transmission constraints could result in our system becoming isolated from the market, as occurred in February 2007.

Instead of relying on the market to supply long-term resources for Xcel Energy, we assume that we use our own resources, existing bilateral transactions, and planned resource additions to meet all of our forecasted energy needs. By not modeling the MISO market and assuming that Xcel Energy will self supply all its resource requirements we have made the most conservative assumption. To the extent that we can obtain lower dispatch and generation costs from the MISO market real-time, the total costs of our plan to customers will also be reduced.

### **Contingency Planning**

Xcel Energy has developed an action plan to acquire new resources to meet the needs of this Plan in a timely and equitable manner. However, there can be a number of circumstances where in spite of careful planning needed resources fail to materialize. For example, a developer of a contracted resource could declare bankruptcy, or a wind project may not be able to acquire turbines or connect to the system in a timely fashion. In these cases, we must have alternative sources to acquire the resources necessary to meet our customers' demand and energy needs.

Contingency planning involves the process of evaluating available options to replace a failed resource, based on a number of factors such as the size and characteristic of the need and the amount of time remaining to fulfill the need. Xcel Energy has developed a contingency plan that looks at a hierarchy of options for meeting our contingencies in a reasonable and timely fashion. This hierarchy uses our competitive acquisition processes as a basis for identifying alternative resources. In certain situations, contingency plans may require the Company to step in to construct a needed resource.

Table 4-7 below sets out our proposed contingency plan in the event that our planned or proposed resources fail to materialize:

Table 4- 7

## Hierarchy of Contingency Plan Alternatives

|    |                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                          |
|----|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Short term capacity purchases                                                                                                             | Save for “late breaking” contingencies for which there might not be time to use one of the following corrective actions in a cost effective manner.                                                                                                                                                                                                      |
| 2. | Use alternative bids                                                                                                                      | If the contingency becomes known before Xcel Energy has released bidders from their obligation, Xcel Energy would use this corrective action. This corrective action is most appropriate for replacing 1 <sup>st</sup> winning bids that drop out soon after selection or do not reach successful contract completion.                                   |
| 3. | Accelerate in service date of resources for which contracts have been executed or for self build projects that have already been approved | If the contingency becomes known sufficiently ahead of time, negotiate an earlier in service date for a resource planned for later in the acquisition period or accelerate the construction schedule of a self-build project that has already been approved. This corrective action is most appropriate for a one to two year delay in another resource. |
| 4. | Xcel Energy builds back-up bids                                                                                                           | If the contingency becomes known in time for Xcel Energy to build its own facility, Xcel Energy will self-build a facility to cover the contingency through the use of the back-up bid that will be filed with the Commission at the time the bids for the RFP are due to be submitted to the Company.                                                   |
| 5. | Sole source with reliable supplier                                                                                                        | This option could substitute for Xcel Energy building its back-up bid if time does not permit the Company to complete the necessary construction in a timely manner. Effectively,                                                                                                                                                                        |



|    |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                   | Xcel Energy would approach an independent power producer with whom it has had a good working relationship and sole source a new supply either from an existing facility or possibly an expansion of an existing facility.                                                                                                                                                                                                                                                                                                          |
| 6. | Install Temporary Generation                                      | The Company or an Independent Power Producer can implement this measure with somewhat less lead-time than the installation of new permanent generation and it is well suited to cover a generation project or transmission delay that may last a year or possibly two.                                                                                                                                                                                                                                                             |
| 7. | Implement interim Load Management or Customer Generation programs | Similar to the installation of temporary generation, this measure can be implemented in a relatively short lead-time (e.g. within 6 months) and is well suited to address resource delays.                                                                                                                                                                                                                                                                                                                                         |
| 8. | Reduced reserve margin                                            | <p>If the contingency became known too late to add new resources in time and insufficient short term purchases were available to cover the contingency, Xcel Energy could be forced to let its reserve margin slip a bit for a summer season until one or a combination of the other corrective actions could be put into place.</p> <p>This option will take into account the criteria used to determine the final reserve margin that Xcel Energy is required to meet according to MISO or other reserve sharing agreements.</p> |

## Conclusion

Xcel Energy proposes a Preferred Plan that combines reasonable, fuel diversity, and environmental stewardship. Careful implementation of this plan over the next several years will allow us to meet our Renewable Energy Standard, operate our system efficiently and meet our customers' needs at an overall reasonable cost. Resource additions to our system represent a diverse mix of fuels, with new energy coming from wind, coal, nuclear, hydro and natural gas.



### 3. Forecast and Resource Needs

- *The average annual growth rates in this resource plan are comparable to the average annual growth rates of previous resource plan forecasts.*
- *After accounting for a DSM methodology change in how we calculate our forecasts, our forecasts predict continuing growth in the demand for electrical power and energy consumption. Based on the median (50<sup>th</sup> percentile forecast) electric consumption is projected to grow by 1.1% or 556 GWh per year. Electrical demand is expected to grow at the rate of 1.2% or roughly 133 MW per year based on the 90<sup>th</sup> percentile forecast.*
- *Our energy and demand forecasts include embedded demand-side management savings from current programs and a forecast of additional savings from future programs of 1.1%.*

Forecasting is a key component of any resource plan. The demand and energy forecasts provide the basis for determining the type and amount of resources that will be needed over the 15-year planning period.<sup>1</sup> In this chapter, we present our forecast results, discuss key assumptions and compliance issues, and identify overall resource needs for the 2008 – 2022 planning period. The peak and energy forecasts are first produced with a 50% probability that the energy or demand will be less than the forecast and a 50% probability it could be higher. These initial forecasts are referred to as the median forecasts. From these forecasts, the 90/10 probability distribution forecast is developed.

In this Resource Plan, a change was made to how we previously accounted for DSM in our resource planning. In past forecasts, embedded DSM from past programs was included in the forecast, but the forecast did not incorporate estimated savings from future DSM programs. Future DSM savings were made as an adjustment during modeling. In determining the forecasts in this Resource Plan, we made adjustments to the forecasts to account for future DSM savings. We no longer make adjustments during modeling. The impact of these adjustments can be seen by comparing the forecasts depicted in Figures 3-7a and 3-7b.

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<sup>1</sup> The 15-year forecast includes Xcel Energy's service territories in North Dakota, South Dakota, Minnesota, Wisconsin and Michigan.

### **Forecast Adjustments**

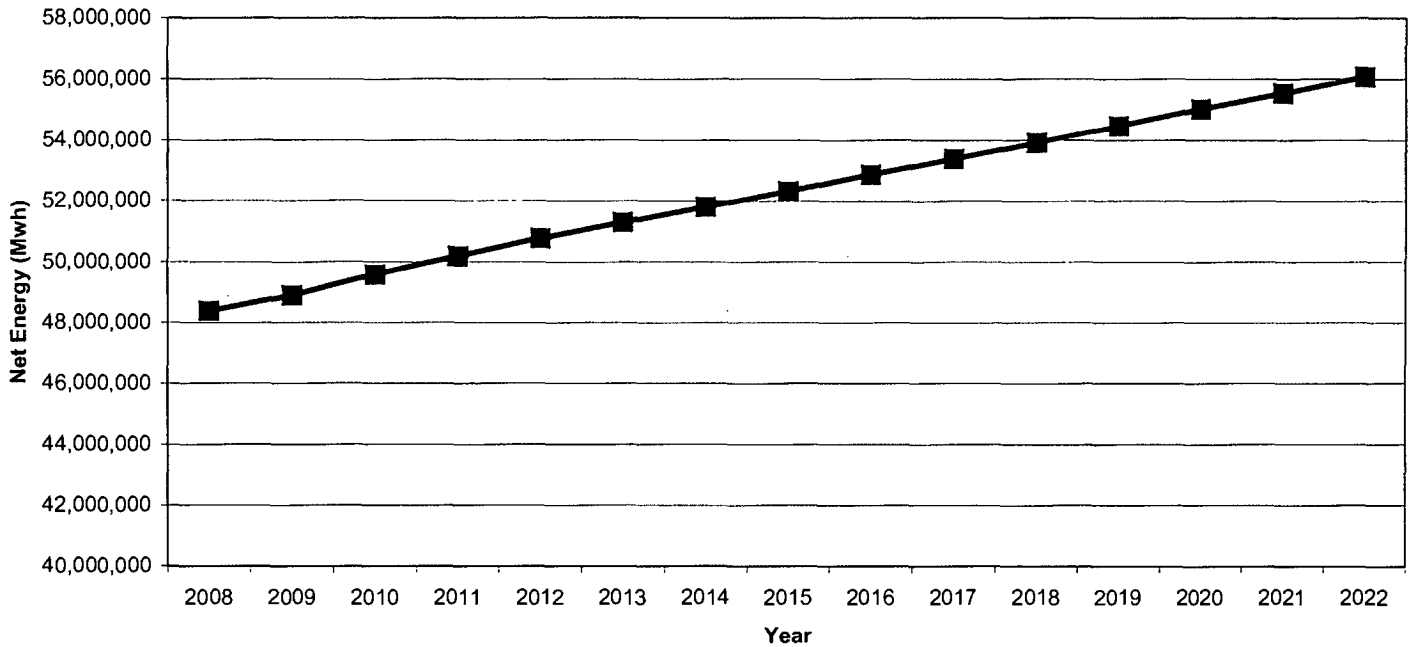
The impacts from all conservation program installations prior to 2007 are embedded in the historical demand and energy data. However, the energy and demand forecasts must be reduced by an estimate of future conservation savings. The future savings assumed for 2008 – 2009 are from the Company's 2007/2008/2009 CIP Triennial Plan goals and the conservation savings estimates included for 2010 – 2022 are based upon the 2007 legislation. For purposes of this forecast, we used our goal of 1.1% energy savings as discussed in Chapter 9 of this plan. The monthly conservation impacts are calculated by customer class, and then subtracted from the customer class level sales forecasts that result from the regression modeling process.

To determine the expected peak demand requirement, the demand forecast must also be adjusted for the potential impacts from our load management programs: such as the Saver's Switch and Peak Control programs. The Company's Saver's Switch and Peak Control programs result in short-term interruptions of service that reduce system capacity requirements rather than permanent reductions in energy use, thus, they are not included in determining the base energy forecast. The peak demand forecast, after adjusting for load management capability, is referred to as the "net" peak demand forecast.

### **Energy Forecast**

The base energy forecast increases at an average annual growth rate of 1.1% over the 2008 – 2022 forecast period. Electric energy requirements are expected to increase at an annual average of 556 GWhs a year, starting with 48,373 GWhs in 2008 to 56,060 GWhs in 2022.

**Figure 3-1**  
**Median (50th percentile) Net Energy (Mwh)**  
**With 1.1% of Retail Sales DSM Adjustment**

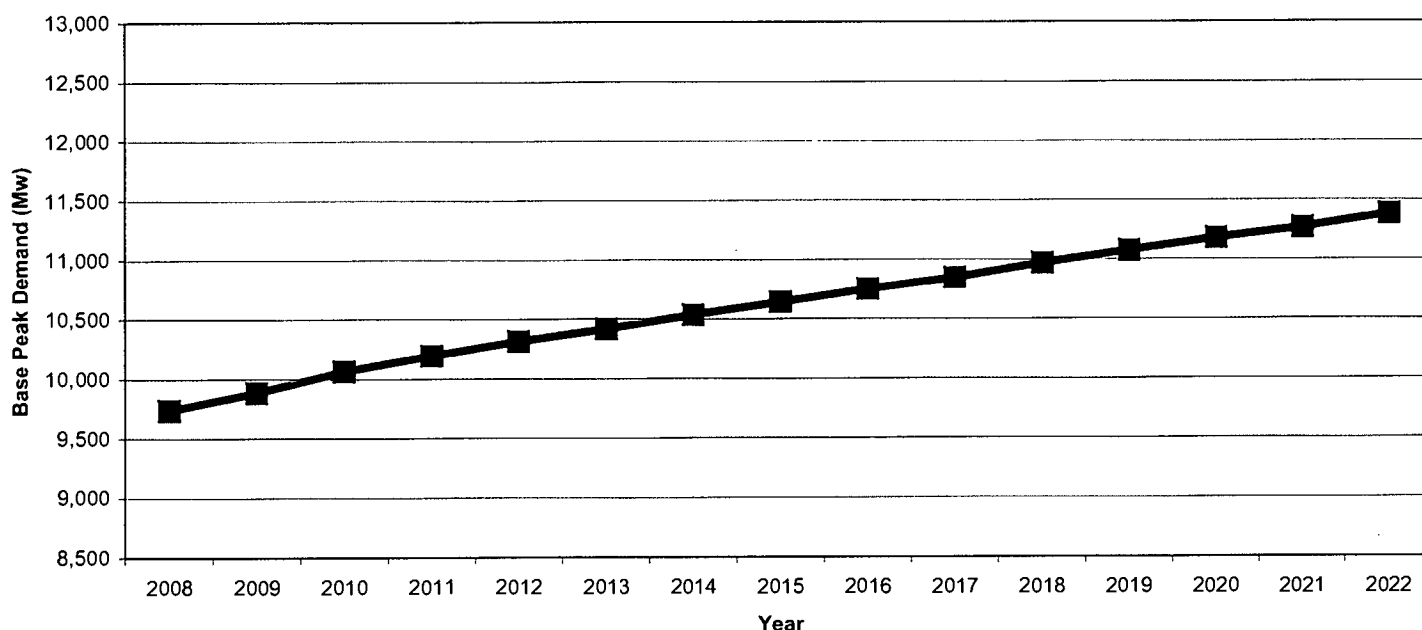


### **System Peak Demand Forecast**

As a summer peaking utility, our system peak demand is the greatest load placed on our system during the hour of highest use in the summer season. The peak normally occurs during periods of very hot and humid weather. We forecast to meet this peak demand through Company owned generation, purchases and load management programs.

Like the energy forecast, the base peak demand forecast has been reduced to account for conservation efforts but not the Company's load management

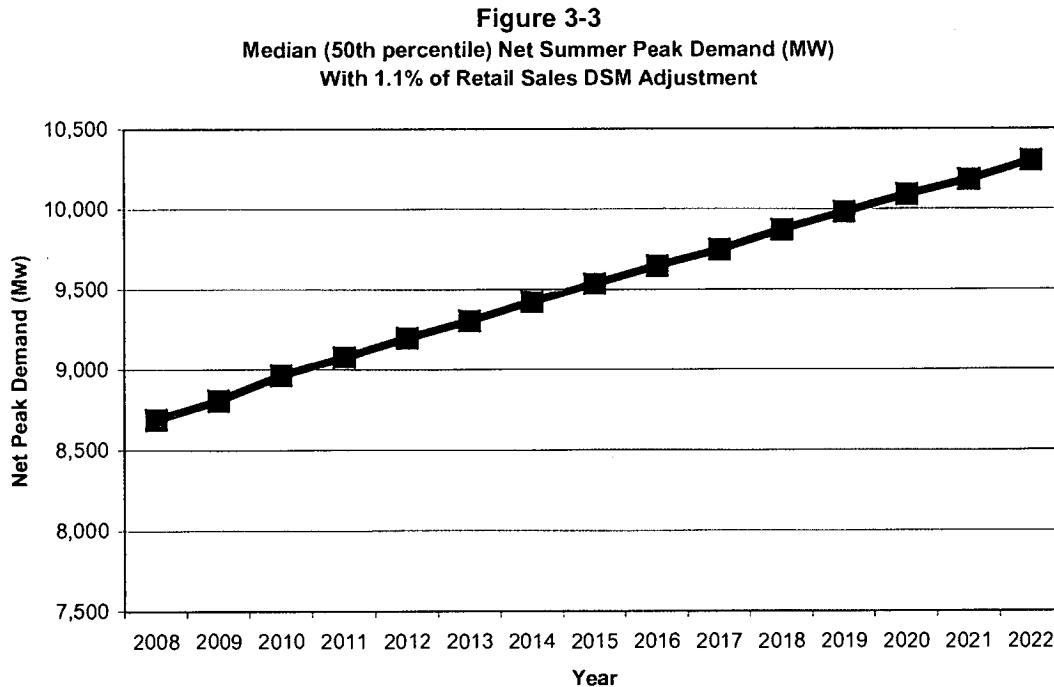
**Figure 3-2**  
**Median (50th Percentile) Summer Base Peak Demand (MW)**  
**With 1.1% of Retail Sales DSM Adjustment**



programs. During the 2008 – 2022 planning period, the median base peak increases as an average annual growth rate of 1.1%. Annual peak demand increases at an average of 130 MWs each year. Starting with 9,737 MWs in 2008 to 11,379 MWs in 2022.

The “net” peak forecast is the forecast after we adjust the base peak forecast for the demand reductions due to our very successful load management programs. The programs interrupt participating customers’ electric supply during peak periods that usually occur during hot summer weather. The net peak demand forecast is the demand the Company must meet through generation and purchases. The median net peak demand forecast increases at an average annual rate of 1.2% over the 2008 – 2022 planning period.

Additionally, the net peak demand forecast increases at an average of 126 MW annually, starting with 8,689 MW in 2008 to 10,295 MW in 2022.



### Key Demand and Energy Forecast Variables

Below we discuss some of the key variables that are included in the 2007 Resource Plan forecasts.

#### *Demographics*

Population projections are essential to the development of the long-range forecasts. The consumption of electricity is closely correlated with population statistics. The number of residential customers and weather data are key variables in the residential energy sales forecast. Over 99% of the variability in historical electric consumption by residential customers in our service territory can be explained through an econometric model that contains the number of residential customers and weather as key drivers. Forecasts for residential

customers are derived from population and household projections provided by Global Insight, Inc. We forecast an average annual growth rate for residential customers on our system of 1%, with the addition of 16,055 residential customers per year from 2008 through 2022.

#### *Economic Indicators*

Xcel Energy uses estimates of key economic indicators to develop electric sales forecasts. These variables include gross state product, employment, real personal income and productivity. Most of the variables used are specific to the jurisdiction and are statistically significant in the sales models for the commercial and industrial customer classes. Growth in electric energy consumption in the commercial and industrial sectors closely follows trends in economic activity. Global Insight, Inc. provided the economic forecasts used in our regression models.

#### *Weather*

The peak demand for electric power is heavily influenced by hot and humid weather. As the temperature and humidity rise, the demand for cooling rises steeply. Our approach to forecasting peak demand includes using a weather variable that consists of the mean of an index of heat and humidity referred to as the temperature humidity index (“THI”). Simply stated, the THI is an accurate measure of how hot it really feels when the effects of humidity are added to the high temperature. We have tracked the THI at the time of the system peak demand over the past 20 years. Because of the 20 years of smoothing, the weather variable does not drastically affect our median forecasts; however, it becomes a key factor in assessing the potential peak demand if and when hot and humid weather extremes are encountered. Since Xcel Energy must have adequate generating resources available during hotter than normal circumstances, planning for the extreme is important. Therefore, to fulfill our legal obligation to serve our customers even under extreme conditions, we utilize the 90/10 peak forecast instead of the 50/50 peak forecast to determine capacity resources.



### **Forecast Methodology**

Xcel Energy serves customers in five jurisdictions in the upper Midwest: Minnesota, North Dakota, South Dakota, Wisconsin and Michigan. We develop a forecast for each major customer class and jurisdiction using a variety of statistical techniques.

First we develop our system sales forecasts by using a set of econometric models at the jurisdictional level for the residential, small commercial and industrial and large commercial and industrial sectors. These models relate our historical electric sales to demographic, economic and weather variables as detailed in the prior section of this document. For the remaining customer classes, Public Street and Highway Lighting, Other Sales to Public Authorities, Interdepartmental and Firm Wholesale sales we use trend analysis and customer specific data. We compile our system sales by summing the individual forecasts for each sector in each jurisdiction.

Since some energy is lost, mostly in the form of heat created in transmission and distribution conductors, we use loss factors to convert the sales forecasts into energy production requirements at the generator. The forecasted loss factors are developed using actual historical loss factors and are held constant over the forecast period.

We have developed an econometric model to relate Xcel Energy's historical uninterrupted monthly peak demand to native energy requirements and weather at the time of the peak in the winter and summer seasons. The median energy requirements forecast (50/50 forecast) and normal peak-producing weather are used in the model to create the peak demand forecast. (Appendix A contains a comprehensive summary of the econometric modeling process utilized to develop the energy and demand forecasts.)

### Forecast Variability

As with any forecast, our forecasts of energy requirements and peak demand depend on other forecasts of key variables. Changes in these variables will affect our forecasts. For instance, if the number of households in our service territory is lower than Global Insight, Inc. has predicted, electric consumption in the residential sector will be lower. The peak demand for electric power each year is very sensitive to weather conditions and can vary considerably as the result of abnormal weather conditions. We supplement the median forecasts with forecasts developed using statistical techniques to reflect the potential variability in energy requirements and peak demand. Tables 3.1 and 3.2, and Figures 3.4, 3.5, and 3.6 show the higher and lower variations of the 2008 to 2022 long-range forecasts of energy requirements and net summer peak demand.

To assess the potential variability embedded in our forecasts, we developed probability distributions for the peak demand and energy requirements. The probability distributions were developed using a Monte Carlo stochastic simulation of peak demand (MW) and a simulation of energy (MWh). For example, the peak demand simulation involved taking 10,000 random draws from the weather probability distributions as well as 10,000 random draws from the 12-month sum of the energy probability distribution. The random draws produce 10,000 forecasts of peak demand and thus generate a probability distribution around the mean peak demand.

The probability distributions developed for this forecast yielded the following result for the net energy forecast. There is a 90% probability that the net energy will be less than 58,485,876 MWh in 2022 or alternatively, there's a 10% probability that the net energy will be less than 53,651,464,660 MWh. A more detailed description of the probability distribution methodology is included in Appendix A.

**Table 3-1**  
**Annual Net Energy**  
**With 1.1% of Retail Sales DSM Adjustment**

| <b>Annual Net Energy (MWH)</b> |                        |               |                        |
|--------------------------------|------------------------|---------------|------------------------|
|                                | <b>90% Probability</b> | <b>Median</b> | <b>10% Probability</b> |
| <b>2008</b>                    | 50,397,981             | 48,373,213    | 46,345,369             |
| <b>2009</b>                    | 50,932,855             | 48,882,025    | 46,825,280             |
| <b>2010</b>                    | 51,647,526             | 49,573,779    | 47,485,582             |
| <b>2011</b>                    | 52,276,831             | 50,177,296    | 48,069,261             |
| <b>2012</b>                    | 52,885,353             | 50,764,710    | 48,623,238             |
| <b>2013</b>                    | 53,445,040             | 51,279,128    | 49,127,136             |
| <b>2014</b>                    | 53,965,359             | 51,789,318    | 49,616,508             |
| <b>2015</b>                    | 54,529,680             | 52,314,897    | 50,107,573             |
| <b>2016</b>                    | 55,098,949             | 52,862,291    | 50,633,102             |
| <b>2017</b>                    | 55,635,470             | 53,376,029    | 51,129,554             |
| <b>2018</b>                    | 56,187,876             | 53,912,542    | 51,613,278             |
| <b>2019</b>                    | 56,772,945             | 54,453,539    | 52,133,788             |
| <b>2020</b>                    | 57,363,909             | 55,007,477    | 52,660,144             |
| <b>2021</b>                    | 57,895,043             | 55,520,687    | 53,145,487             |
| <b>2022</b>                    | 58,482,876             | 56,059,694    | 53,651,464             |
| <b>Average Annual Growth</b>   | <b>1.1%</b>            | <b>1.1%</b>   | <b>1.1%</b>            |

Table 3-2  
**Annual Base Summer Peak Demand (MW)**  
**With 1.1% of Retail Sales DSM Adjustment**

| <b>Annual Base Summer Peak Demand (MW)</b> |                        |               |                        |
|--------------------------------------------|------------------------|---------------|------------------------|
|                                            | <b>90% Probability</b> | <b>Median</b> | <b>10% Probability</b> |
| 2008                                       | 10,302                 | 9,737         | 9,173                  |
| 2009                                       | 10,446                 | 9,881         | 9,326                  |
| 2010                                       | 10,630                 | 10,060        | 9,486                  |
| 2011                                       | 10,773                 | 10,190        | 9,596                  |
| 2012                                       | 10,893                 | 10,310        | 9,727                  |
| 2013                                       | 11,006                 | 10,414        | 9,813                  |
| 2014                                       | 11,143                 | 10,531        | 9,927                  |
| 2015                                       | 11,250                 | 10,639        | 10,025                 |
| 2016                                       | 11,382                 | 10,748        | 10,127                 |
| 2017                                       | 11,487                 | 10,844        | 10,215                 |
| 2018                                       | 11,619                 | 10,965        | 10,322                 |
| 2019                                       | 11,732                 | 11,072        | 10,402                 |
| 2020                                       | 11,860                 | 11,176        | 10,493                 |
| 2021                                       | 11,961                 | 11,265        | 10,571                 |
| 2022                                       | 12,105                 | 11,379        | 10,660                 |
| <b>Average Annual Growth</b>               | <b>1.2%</b>            | <b>1.1%</b>   | <b>1.1%</b>            |

Table 3-3

**Annual Net Peak Demand (MW)**  
**With 1.1% of Retail Sales DSM Adjustment**

| <b>Annual Net Summer Peak Demand (MW)</b> |                        |               |                        |
|-------------------------------------------|------------------------|---------------|------------------------|
|                                           | <b>90% Probability</b> | <b>Median</b> | <b>10% Probability</b> |
| <b>2008</b>                               | 9,255                  | 8,689         | 8,126                  |
| <b>2009</b>                               | 9,370                  | 8,806         | 8,250                  |
| <b>2010</b>                               | 9,531                  | 8,961         | 8,387                  |
| <b>2011</b>                               | 9,656                  | 9,073         | 8,479                  |
| <b>2012</b>                               | 9,775                  | 9,192         | 8,609                  |
| <b>2013</b>                               | 9,891                  | 9,299         | 8,698                  |
| <b>2014</b>                               | 10,032                 | 9,419         | 8,816                  |
| <b>2015</b>                               | 10,142                 | 9,530         | 8,917                  |
| <b>2016</b>                               | 10,277                 | 9,643         | 9,023                  |
| <b>2017</b>                               | 10,385                 | 9,743         | 9,113                  |
| <b>2018</b>                               | 10,521                 | 9,867         | 9,224                  |
| <b>2019</b>                               | 10,638                 | 9,978         | 9,307                  |
| <b>2020</b>                               | 10,768                 | 10,084        | 9,402                  |
| <b>2021</b>                               | 10,874                 | 10,177        | 9,483                  |
| <b>2022</b>                               | 11,021                 | 10,295        | 9,576                  |
| <b>Average Annual Growth</b>              | <b>1.3%</b>            | <b>1.2%</b>   | <b>1.2%</b>            |

**Figure 3-4**  
**Net Energy (MWh)**  
**With 1.1% of Retail Sales DSM Adjustment**

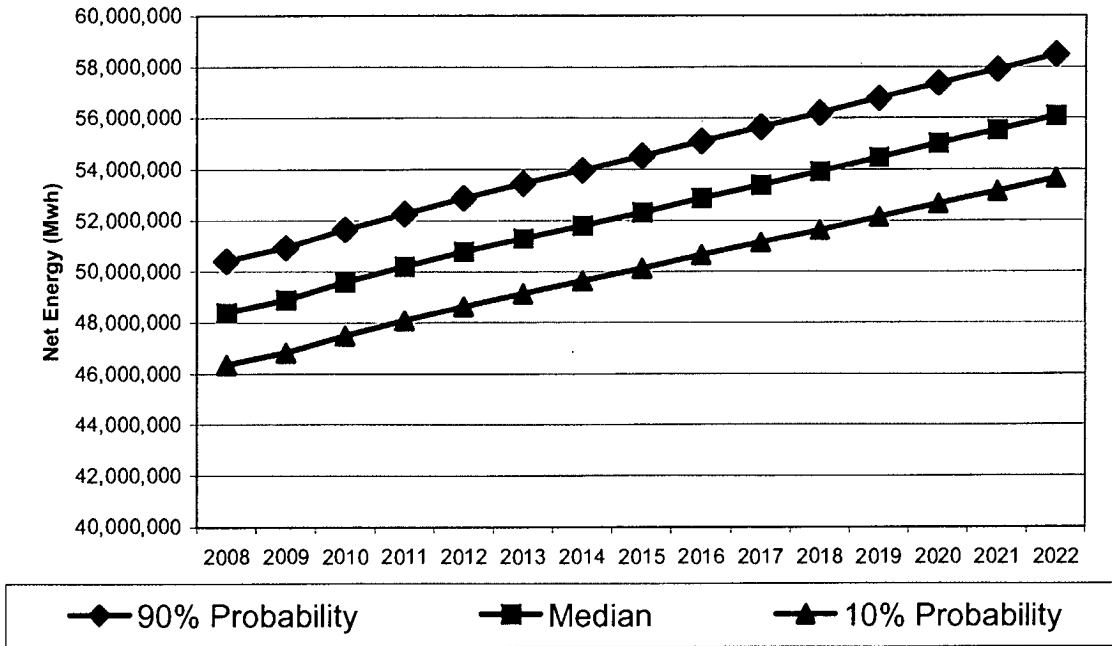
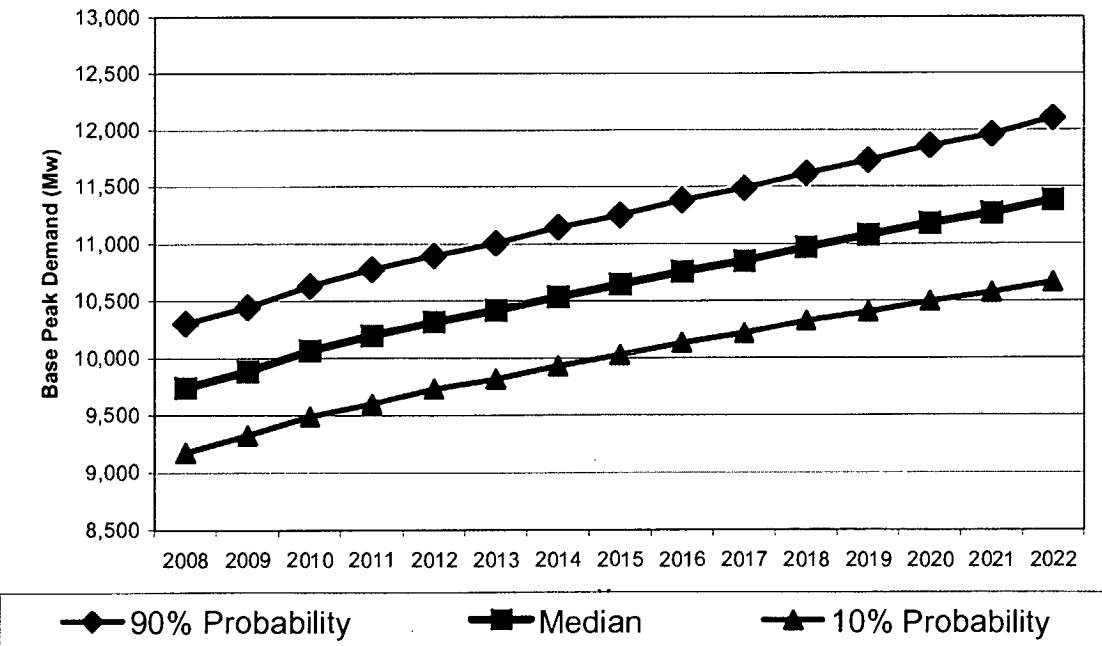
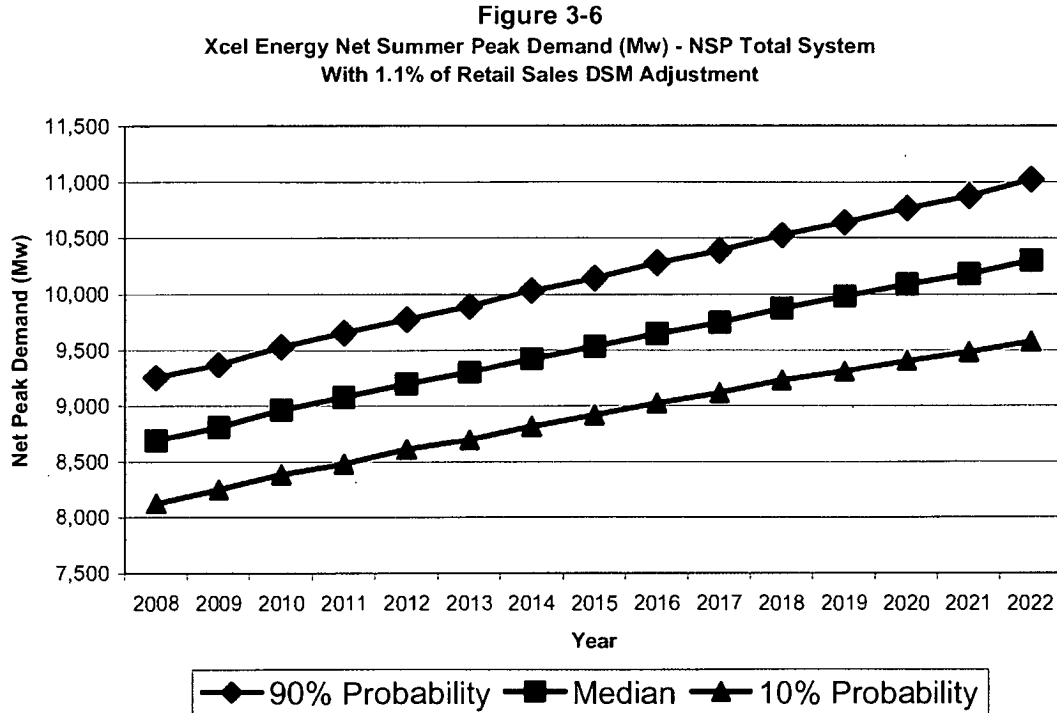


**Figure 3-5**  
**Base Summer Peak Demand (Mw)**  
**With 1.1% of Retail Sales DSM Adjustment**





### Forecast Compliance Issues

Projections of energy and demand are fundamental to identifying the need for generation resources. The Department of Commerce (“DOC” or “Department”) closely reviews our forecasts in Resource Plans and Certificate of Need proceedings. In the 2004 Resource Plan, the Department expressed concerns regarding our forecast methodology. Ordering paragraph 14 of the Commission’s July 28, 2006 Order in Docket E002/RP-04-1752 instructed the company to meet with the Department to continue discussions regarding improvements to our forecast and required we file a report on the discussion before December 1, 2006. On November 22, 2006, we filed a letter apprising the Commission of the ongoing discussions between the Department and the company and committed to providing an updated report on the discussions by February 1, 2007.

Since November 22, 2006, we met with the Department on several occasions via conference call and in person on January 16, 2007. Via conference calls and email, we provided further explanations and exchanged data with the Department.

Since forecasting is so critical to our resource planning, having a clearly articulated and documented forecast process is extremely important. To that end, we appreciate the discussions with the Department regarding concerns with our forecasting techniques. Our discussions resolved a number of specific questions the Department raised and we have included additional information on areas we agreed to address in our February 1, 2007 report in this Resource Plan.

Areas we agreed to address in this resource plan include: forecast vintage; use of the 90/10 peak and 50/50 energy forecast; a status report of forecasting changes at the Midwest Independent System Operator (“MISO”) and the Midwest Reliability Organization (“MRO”); and a discussion on risk.

#### *Forecast Vintage and Comparison*

The review process for a Resource Plan or a Certificate of Need typically takes months and, in some cases, years to complete. During this time, forecasts can change as economic variables change. In the last Resource Plan proceeding, the Department requested that we provide an explanation of the differences between forecasts that are presented in different proceedings. A number of the specific vintage questions the Department raised were addressed during our meeting and follow-up discussions. We agreed to provide a comparison of our new forecast to previous forecasts on a going forward basis.

The graphs below compare the peak demand and energy of the Company’s current forecast with the forecasts approved in the 2004 Resource Plan, the Base Load CON filed in November of 2006 and the Electric Utility Annual Report filed in mid 2007. We have also included a comparison of the energy



and demand forecasts with and without DSM for direct comparison to previous forecasts (which did not include the DSM adjustments). Figure 3-7a indicates that the energy forecast (without DSM) is slightly higher than the forecast reported in our 2007 Annual Electric Utility Report, but lower than the forecast approved in our 2004 Resource Plan. This is due to a reduction in some economic indicators since the 2004 Resource Plan forecast was produced. Figure 3-7b indicates that there has been very little change in the demand forecast since previous forecasts. The new demand forecast without DSM is slightly lower than the previous demand forecasts. Again, this is due to a reduction in some of the economic indicators used in determining the forecast.

As indicated earlier, the average annual growth rates in the forecasts are similar to the average annual growth rates of previous forecasts. The change in DSM methodology reduces the forecast needs, but other factors also contribute including updated loss factors that are lower than previous forecasts, some key variables being less optimistic in this forecast, and weather normalized actual sales for 2007 which were lower than forecast.

**Figure 3-7a**  
**Net Energy Requirements (MWh)**  
**Median (50<sup>th</sup> Percentile) Forecast**  
**Comparison of Current and Previous Energy Forecasts**

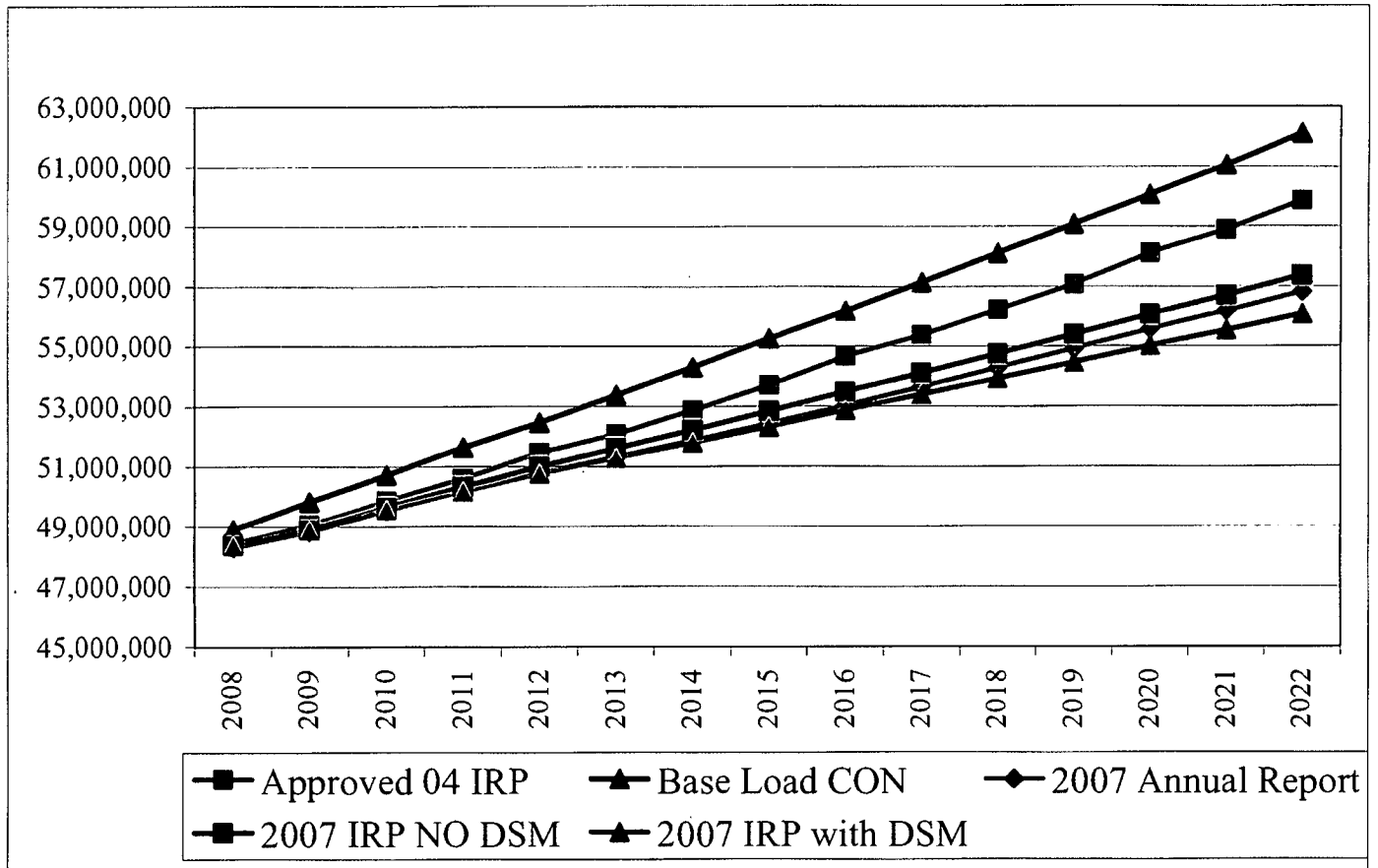
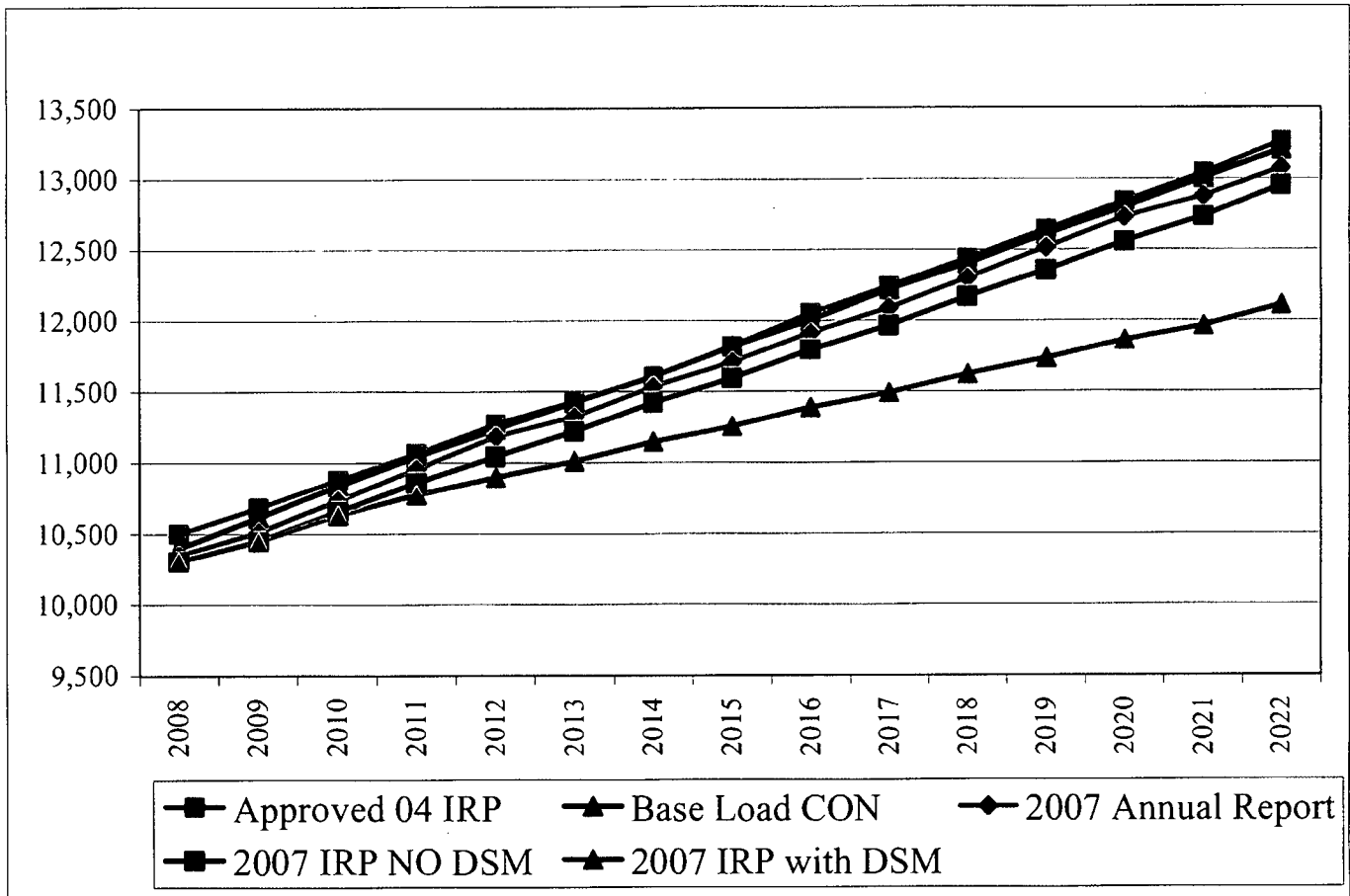


**Figure 3-7b**  
**Base Peak Demand (Mw)**  
**90<sup>th</sup> Percentile Forecast**  
**Comparison of Current and Previous Demand Forecasts**



*90<sup>th</sup> Percentile versus 50 Percentile Peak Demand Probability Forecast*

To meet our customers' needs during periods of peak demand, we must acquire resources on the short-term market. Beginning in 2004, these acquisitions became increasingly difficult due to decreasing capacity reserve in the Upper Midwest and increasing constraints on the transmission system. As a result of these constraints, we changed how we planned our demand forecast.

Before 2004, we presented a median peak forecast in our Resource Plan. Under this model, we used a 50% peak probability forecast (i.e., a 50% chance

of actual demand being higher than the forecast) and then determined the long-term capacity resources required to meet that median level of demand. When actual demand exceeded the 50% peak demand level, we acquired short-term capacity resources. These resources were not included in our calculation of the “gap” between our load and resources, nor were they included as resources to be acquired in our action plan.

As short-term resources became more difficult to obtain after 2004, our ability to close the “gap” between our load and resources put at risk our ability to meet our reserve margin. As a member of the MAPP Reserve Sharing Group, we are required to maintain a 15 percent reserve margin over and above our actual summer peak demand as measured on an after-the-fact basis. If we fail to meet our reserve requirement, we are subject to penalties of up to \$45/kW season for each reserve kW we did not have available. To meet these requirements in the face of the tighter market for short-term resources, it became necessary to reduce our reliance on short-term capacity resources, place more weight on the long-term resources and move away from planning with the 50% median peak forecast.

In our 2004 Resource plan, we adopted for the first time a 90% probability forecast for peak demand and a 50% probability forecast for energy. Under this approach, we determined the amount of accredited short-term resources that we expected we would reasonably be able to obtain in any given season. We have determined that this accredited short-term resources capacity is 750 MW based on the transmission paths that we currently control or believe that we could control, as well as the estimated transfer capability into MAPP from the rest of MISO. We set this amount as our baseline level of short-term capacity and added it to our total capability to determine the gap between our load and resources. We then compared our increased capability against our 90% forecast level to ensure that we were acquiring sufficient resources to meet our actual peak.

In our last resource plan, intervenors commented that the change from using the 50 % to the 90% peak forecast may cause us to acquire excess resources at an unreasonable cost to customers. We disagree, as our treatment of short-term purchases also changed. This maintains the historic balance of resources to forecast specifically because we included an additional 750 MW of short-term resources in our gap analysis. The change to the use of the 90% peak forecast will only change our resource needs if the difference between the 50% peak forecast and the 90% peak forecast is greater than 750 MW. Although the change from use of a 50% forecast (when short-term purchases are not counted) to use of a 90% forecast (when short-term purchases are counted) will result in a small shift between short and long-term resources in our portfolio, it does not actually result in a change in the amount of resources we are acquiring to meet our resource needs.

In this Resource Plan we have once again used a 90% peak forecast level and 750 MW of short-term purchases to ensure that we acquire sufficient resources over the planning period to meet our peak demand plus the MAPP reserve requirements. It is likely, however, that our reserve requirement will be changing in the near future, due to our membership in the new Midwest Planning Reserve Sharing Group ("PRSG"). In Chapter 4, Modeling and Preferred Plan, we provide the Commission with a discussion of a potential new methodology for determining reserve margins, and also perform a sensitivity analysis showing the impact of alternative reserve margins on our Resource Plan.

### *Forecasting at MISO and MRO*

The Department had questions regarding whether new discussions of reserve sharing at MISO and the MRO would result in Xcel Energy being required to change the way that we did our forecast. At the current stage of discussions with this group, this does not appear to be the case. Each utility will be responsible for its own forecast when determining the level of reserves

necessary to meet the reserve requirements of the Midwest PRSG. This topic is discussed in more detail in Chapter 4, Reserve Margin Analysis.

#### *Risk Assessment in Forecast*

The Department also expressed concern that because we are using the 90% forecast for planning, we are not evaluating the variability around the demand forecast as a sensitivity. However, we believe that this is a planning construct, and not a forecasting one. Our forecast shows a median forecast with probabilities of higher and lower levels. For planning, we choose to look at a high probability level to ensure that we meet our actual peak and our reserve margin. Thus, we do not believe it is necessary to create new probability distributions around the 90% demand forecast to evaluate our resource plan.

Overall, we believe our dialogue with the Department has been constructive and useful. We believe we have addressed the concerns they raised and we have responded to the Department request for additional information in this Plan. We are open to further discussions of these issues in this proceeding.

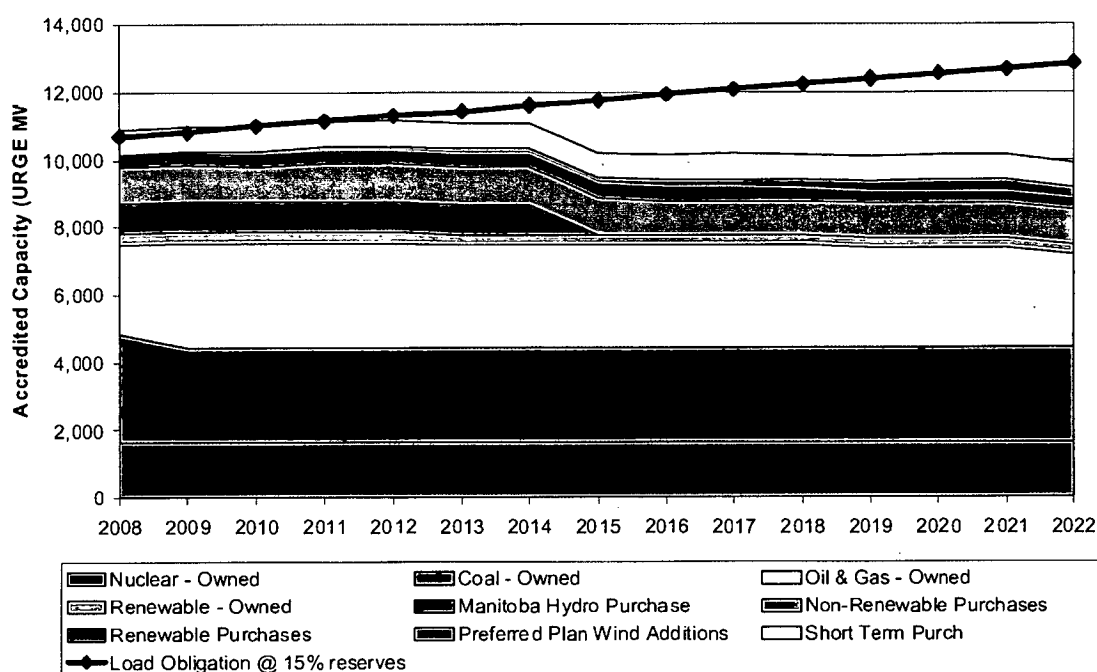
#### **Resource Needs**

As mentioned above, as a member of the MAPP, we are required to carry enough accredited capacity to meet our seasonal peak load, plus a 15% reserve margin. Notwithstanding the MAPP requirements and the financial penalties associated with the requirements, Xcel Energy is required by Minn. Stat. §216B.04 to supply safe, adequate and reasonable electric service to all customers in our exclusive service territory. It is extremely important that we have adequate generation capacity in place to meet those requirements. In terms of electricity planning, we believe the consequences of having too much capacity are preferable to having too little. Consequently, we need to plan to a fairly high level of certainty that the generation capacity in our portfolio will meet the projected demand for the coming season.

*Generation Requirements*

Once estimates of our customers' energy and power requirements are established through our forecasting process, we conduct an examination of the generating resources available to meet those requirements. Figure 3-8 presents a comparison of Xcel Energy's forecast of production capacity requirements compared to existing generation resources and pending generation acquisitions.

**Figure 3-8**  
**Requirements and Resources 2008-2022**



The peak demand forecast line in Figure 3-8 also reflects the conservation and load management demand-side management adjustments mentioned earlier and MAPP's 15% generation reserve requirement. Figure 3-8 indicates that the load obligation for electric power will be approximately 10,700 MW in 2008, 11,600 MW in 2015, and 12,900 MW in 2022.

On the supply side, we own approximately 6,200 MW of existing non-nuclear accredited production capacity and approximately 1,600 MW from Prairie

Island and Monticello nuclear plants. Existing long-term power purchases amount to approximately 2,300 MW in 2007, but this amount will change over time as purchase agreements expire and additional contracts are acquired for new wind generation. We have added 60 MW of new generation at the King plant and are in the process of adding approximately 300 MW at Riverside and High Bridge as part of the Metro Emissions Reduction Project (MERP). We have also included the addition of 750 MW of short-term purchases from various parties. Compliance with the RES and other states' renewables mandates will require us to have an approximate total of 4,000 MW of wind energy on our system by 2020. We are currently reviewing proposals for 160 MW of summer peaking capacity to be on-line per our 2004 Resource Plan. Lastly, in determining our future available resources, we have made the assumption that Prairie Island is successfully relicensed. Based on our forecasted demand and expected available resources discussed above, we anticipate the need for new production capacity starting in 2012.

If any of the generation initiatives – or the assumed DSM savings - fails to materialize as planned, additional resources will be required. Thus, reaching consensus on an action plan to hedge this risk will be important to ensuring our ability to reliably and cost-effectively meet our customers' needs.

### **Conclusion**

Our forecasts predict continued growth in demand of 1.2 % per year and energy of 1.1% per year over the 15-year planning period. The predicted growth rates assume we achieve our DSM goals of 1.1% of Retail Sales and we are able to fully comply with the RES of 30% renewables by 2020 – with 25% coming from wind energy. Comparing our projections to our available resources, we anticipate a need for additional generating resources starting in 2012, with 2,000 MW needed by 2018 and 2,800 MW needed by 2022. The remainder of this Plan outlines our assessment of this resource needs and plans for meeting it.



## **2) Landscape**

## 2. Landscape

- *Xcel Energy shares the state's vision for an environmentally sound energy future. Our Plan will meet our customers' resource needs and legislative requirements in a manner that ensures a robust, diverse system, reliable service and reasonable costs.*
- *New legislation enacted by the 2007 Minnesota Legislature drives this Plan and will define many of our resource needs, acquisition strategies, and system operations.*

### Minnesota's Energy Future

Xcel Energy embraces Minnesota's policy of balanced, proactive environmental leadership and believes it best serves the interests of our customers, communities and other stakeholders. We believe this approach will reduce future costs and risks associated with system operations, improve the value of the energy services we provide our customers, and enhance and protect the environment. We recognize there are environmental costs associated with our resources that are likely to be internalized over time, as environmental regulation continues to develop and expand. It thus makes good sense to diversify our resource mix with cleaner resources that will accommodate a variety of potential future regulatory schemes related to emissions.

This approach builds on our history, in which we have led other utilities and states in demand-side management, renewable energy, and environmental performance. Minnesota implemented renewable energy and demand-side management well before most other states, and now requires some of the most aggressive programs in the country. Likewise, we began developing renewable resources in 1991, and now rank as the national leader among regulated utilities in the development of wind power. Our performance has led to being named to the Dow Jones Sustainability Index for North America, and three of our energy efficiency programs recently received national awards issued by the American Council for an Energy-Efficient Economy. Together, by building a constructive and supportive regulatory framework, we have laid the foundation for a reasonable cost and an environmentally sound energy future.

Building on these accomplishments and strengths, the 2007 Minnesota Legislature enacted significant new legislation that drives this Resource Plan. We support these

initiatives, and are committed to achieving compliance. As a result, this Resource Plan provides increased emphasis on clean resources, including:

- Expanded savings from DSM, energy efficiency and conservation;
- Significantly increased levels of renewable energy;
- Expanded output and extended lives for our nuclear plants;
- Upgraded environmental systems, improved efficiencies, and expanded output for certain of our coal-fired plants;
- Use of purchased hydro-electric capacity and energy;
- Replacement and repowering of inefficient generation;
- Assessment of the potential for carbon capture and storage; and
- Evaluation of bio-fuels and energy storage/optimization technologies.

In this chapter, we present an overview of the initiatives to provide context for our proposed Resource Plan.

### **2007 Legislative Initiatives**

Earlier this year, the Minnesota Legislature adopted the most ambitious energy and climate management legislation in the nation. Working closely with the Governor, and with broad bipartisan support, the Legislature took bold action to address a carbon-constrained future. The new laws – the Renewable Energy Standard (“RES”) and Next Generation Energy Act – require that:

- Utilities must produce 25 percent of their retail sales from renewable resources by 2025. For Xcel Energy, this Renewable Energy Standard requires that we must produce 30 percent of our retail sales from renewable resources by 2020, with 25 percent of those sales provided by wind resources.
- Statewide greenhouse gas emissions must be reduced to levels at least 15 percent below 2005 levels by 2015, at least 30 percent below 2005 levels by 2025, and at least 80 percent below 2005 levels by 2050.
- Statewide energy savings goals are increased to 1.5 percent per year.

We present an overview of each major Act and a brief description of its initial impact on this Resource Plan below.

*Renewable Energy Standard (Minnesota Session Laws 2007, Chapter 3)*

The RES requires that Xcel Energy produce 30 percent of its retail sales from qualifying renewable resources by 2020, 25 percent of which must be provided by wind resources. For other Minnesota utilities, the RES standard is 25 percent of retail energy served by qualifying renewable resources by 2025. The Statute defines qualifying renewable resources to be:

- Solar;
- Wind;
- Hydroelectric with a capacity of less than 100 MWs;
- Hydrogen, provided that after January 1, 2010, the hydrogen must be generated from a qualifying renewable resource; and
- Biomass, including landfill gas, an anaerobic digester system, and mixed municipal solid waste or refuse-derived fuel.

The RES authorizes the Commission to modify or delay implementation of the Standard if it finds doing so to be in the public interest, considering impacts such as customer costs and reliability. These so-called “off ramps” will be discussed in greater detail later in this Plan.

The impacts of the RES on our system are many and varied. Most directly, since we currently obtain nearly five percent of our retail sales from biomass and hydroelectric energy either on our system or under contract, our compliance with the RES will stem largely from new wind resources. Specifically, we estimate that we will need to add approximately 2600 MW of new wind resources on our system, or approximately 200 MW annually until 2020; in contrast, our 2004 Resource Plan required the addition of 1680 MW of wind by 2019. Also pursuant to 2007 legislation, on December 10, 2007, we submitted our Renewable Energy Plan presenting our initial action plan for acquiring wind resources and achieving greater balance in our wind portfolio.

Aside from the wind acquisition strategy, to meet the requirements of the RES, Xcel Energy must undertake other significant changes to our mix of resources and system operations. The intermittent nature of wind resources dictates there will clearly be periods when available wind energy will supplant base load resources to meet our customers' energy needs.

As a result, existing base load resources will need to operate differently compared to how we have operated those resources in the past to accommodate the new wind additions. In addition, we will require more quick-start gas peaking plants to back up the wind power. However, while significant additional investment in gas-fired generation is required to meet the RES, our analyses indicate that the amount of natural gas consumed system-wide will only increase moderately, as wind will provide most of our incremental energy requirements. We discuss these implications in greater detail later in our Plan.

*Energy Efficiency and Conservation –Next Generation Energy Act “the Act” (Minnesota Session Laws 2007, Chapter 136, Article 2)*

In addition to establishing an ambitious RES, the Legislature adopted a new approach to conservation and DSM. In the past, the state's Conservation Improvement Program (“CIP”) requirements established certain levels of spending to promote conservation, and the conservation savings we have achieved have been significant. Between 1990 and 2006, Xcel Energy has invested almost \$600 million (nominal dollars) resulting in over 4,000 GWh of electric energy savings and 2,000 MW of demand savings. Absent these savings, we would have to add up to 70 percent in additional wind resources to meet the RES requirements.

For Xcel Energy, the new legislation almost doubles our CIP efforts, which currently achieve approximately 0.8 percent savings annually. The new statewide goal is 1.5 percent of annual energy savings of retail electric sales. This performance-based goal is a new approach that we believe focuses attention on the right measure: performance, rather than spending. The new legislation challenges the State of

Minnesota to meet the 1.5 percent savings goal through a combination of existing and new energy conservation improvement programs. The programs may be based on rate design, energy codes and appliance standards, or they may be designed to transform the market or to change consumer behavior. Subject to certain qualifications, the programs also may be based on energy savings resulting from efficiency improvements to the utility infrastructure and system, and other efforts to promote energy efficiency and energy conservation.

Xcel Energy is committed to helping to achieve the DSM goals established by the 2007 Legislature. These efforts will affect the size, type and timing of resources required to meet our customers' needs. Further reductions in load growth through expanded conservation efforts should result in reduced or delayed resource needs, or both. Achieving higher DSM goals requires that we find additional cost-effective ways to implement more conservation in our industrial sector. Achieving substantially more industrial savings may change the shape of our system load profile over time, thus affecting the type of resource (base load, intermediate, or peaking) best suited to meet our customers' needs. Achieving a 1.5 percent reduction in retail sales will also require Xcel Energy, the Department of Commerce and other stakeholders to develop the methodologies and measurement tools that will facilitate the capture of the energy conservation from the "indirect" conservation opportunities identified by the Act.

*Greenhouse Gas Reduction Goals—Next Generation Energy Act (Minnesota Session Laws 2007, Chapter 136, Article 5)*

This legislation addresses climate change and carbon dioxide levels in the state and sets the goal to reduce statewide greenhouse gas emissions to levels at least 15 percent below 2005 levels by 2015, at least 30 percent below 2005 levels by 2025, and to at least 80 percent below 2005 levels by 2050. It requires the development of a comprehensive greenhouse gas emission reduction plan to meet those goals.

Until a comprehensive and enforceable state law or rule that limits and reduces statewide carbon dioxide emissions is in effect, the legislation additionally prohibits

the following activities after August 1, 2009, unless the project offsets emissions with a carbon-dioxide reduction project:

- Constructing within the state a new large energy facility that would contribute to statewide power sector carbon dioxide emissions;
- Importing or committing to import from outside the state, power from a new large energy facility that would contribute to statewide power sector carbon dioxide emissions; or
- Entering into a new long-term power purchase agreement that would increase statewide power sector carbon dioxide emissions. For purposes of this section, a long-term power purchase agreement means an agreement to purchase 50 megawatts of capacity or more for a term exceeding five years.

The legislation also requires the Commission to establish an estimate of the likely costs of future carbon dioxide regulation on electricity generation, which must be used in all electric generation resource acquisition proceedings. The Commission recently acted on this requirement, and adopted an initial range of \$4 – 30/ton for a carbon value to be used in resource analyses.

As a package, these three new statute changes have a substantial direct effect on our resource planning for 2008-2022. The immediate impact of this legislative package was so substantial that the Company determined this legislation constituted a “changed circumstance” significant enough to require a re-examination of those yet to be acquired resources that were underway pursuant to the approved 2004 Resource Plan. Simultaneously with this filing, we have filed a compliance filing stating our recommendations as to how to proceed with the dockets we asked to be re-examined.

The requirement for substantial new wind on our system has reduced the projected amount and type of other resources required to meet our customers’ needs. For example, in compliance with the greenhouse gas emission limits, this Plan proposes an emission free strategy to use hydro capacity to address some intermediate load needs.

In doing so, however, this amount of wind generation unavoidably changes the nature of those needs while creating new challenges to system operations. The new conservation and DSM requirements will reduce customer demand and energy requirements as well impact the overall load profile—and as a result—the type of resources best suited to meeting our system needs.

*Other Requirements of the Next Generation Energy Act*

In addition to its DSM and carbon-management provisions, the Act includes many future studies and analyses that will impact how the Company will meet our customers' needs. Those studies have not been completed in time to inform this Resource Plan, but we provide a brief overview here.

For example, the Act requires:

- The Legislative Electric Energy Task Force (“LEETF”) to study nuclear power and carbon sequestration with a report due March 1, 2008.
- The Commission to issue a report on wind curtailment payments by January 15, 2008.
- The Department of Commerce (the “Department”) to look at the state’s need for base load resources through 2025.
- A study on distributed generation to be completed in two parts, due June 15, 2008 and September 15, 2009.
- The LEETF to examine issues surrounding wind development property agreements in a report due February 1, 2008.
- The C-BED task force to make recommendations on topics involving the development of community-based generation projects by January 15, 2008.
- A study assessing whether Minnesota would benefit from a state transmission authority or interconnection rules that would not be subject to FERC or MISO rules to be prepared by February 15, 2008.
- The Commissioner of the Department of Commerce, in consultation with many other government agencies, to submit a climate action plan to the



legislature by February 1, 2008 and report on potential regional approaches to reducing greenhouse gases in reports on February 1, 2008 and 2009.

As these reports are issued and the Legislature and the Commission consider the implications and needed actions, the Company expects that our Resource Plan may need to change in ways not expected today to further the public policy direction.

### **Ongoing Oversight**

The 2007 Minnesota energy policy legislation established significant new energy policies for utility implementation. It did so relying on the Commission, the regulatory community, and utilities to implement this agenda in a manner to carefully maintain reliability and affordability. The 2007 legislation charges the Commission with the dual roles of facilitating the ambitious series of new and enhanced policy initiatives, while continuing to serve the needs of Minnesota customers with reliable, cost competitive energy.

Specifically, the Commission must determine if and when the statutory “off ramps” may be appropriately invoked. The Commission’s oversight and implementation of this law authorizes it to modify or delay the implementation of a standard obligation, in whole or in part, if the Commission determines it is in the public interest to do so. In deciding whether to modify or delay implementation, the Commission must consider a wide variety of criteria set forth in law, ranging from customer costs and equipment availability to transmission issues. Similar to the effect on utilities, the 2007 package of energy policy legislation will present the Commission with challenging new issues, and an important role.

### **Conclusion**

The 2007 Minnesota Legislature’s passage of the RES and the Next Generation Energy Act creates a new landscape for the development of this Resource Plan. The size, type and timing of our resource needs have been significantly impacted by the new requirements for renewable energy, DSM and greenhouse gas reductions. Xcel Energy recognizes many challenges lie ahead, but intends to continue to move

forward to comply with the new requirements, furthering our shared environmental leadership policies.



## 1. Executive Summary

### Introduction

Northern States Power Company, a Minnesota corporation (“Xcel Energy” or the “Company”), submits to the Minnesota Public Utilities Commission (“MPUC” or “Commission”) our 2007 Resource Plan covering the period 2008 – 2022 for consideration and approval. This Plan identifies how we propose to meet our customers’ needs for capacity and energy while complying with significant new initiatives enacted by the 2007 Minnesota Legislature regarding renewable energy, demand-side management (“DSM”), and greenhouse gases.

The Minnesota Legislature has clearly specified an expansion path for new resources in the state, and we fully support this “Environmental Leadership” approach. We believe that a strong commitment to reducing the environmental impact of energy use and production is essential, offers an important hedge to future costs of increased environmental regulation, and can be accomplished while maintaining reasonable customer rates and reliable service. We thus support the goals and requirements adopted by the 2007 Minnesota Legislature, and believe they establish an appropriate path for us to pursue. This Resource Plan provides our proposal for achieving compliance while maintaining reasonable customer rates.

Like previous filings, then, this Plan presents our analysis of customer needs and resource options under a variety of assumptions. More so than other filings, however, this Plan is driven by our efforts to implement new legislative requirements, providing for 2600 MW of new wind resources, increased DSM goals of approximately 30 percent energy savings and 50 percent demand savings, and a 22 percent, 6-million ton reduction in carbon emissions by 2020. Compliance with these requirements results in significant changes in our resource needs from previous Plans – most notably, the elimination of the incremental, 375-MW base load need identified in our 2004 Resource Plan due to the significant additions of wind energy on our system needed to comply with the Renewable Energy Standard

(“RES”). As a result, the composition of needed resources for our system has changed, and our preferred path now imposes far fewer environmental costs than previous plans have suggested.

To ensure we comply with these new legislative requirements in an efficient and cost-effective manner, it is critical that we implement an effective resource acquisition process, building on the acquisition process adopted in our 2004 Resource Plan. To this end, we present a long-term view of our system needs, our proposals for meeting those needs while complying with legislative requirements, and a process for addressing the contingencies that will inevitably arise.

Thus, our 2007 Resource Plan includes:

- *A new forecast that projects a need for additional capacity and energy.* This forecast anticipates annual energy growth of approximately 1% at the median forecast and approximately 1% annual demand growth at the 90% forecast level over the planning horizon. While lower than previous forecasts due to expanded DSM efforts, this load growth will require the addition of approximately 3200 nameplate rated MW of non-wind resources on our system by 2022.
- *The addition of up to 2600 MW of new wind resources by 2020 to meet our renewable requirements.* Minn. Stat. § 216B.1691 provides that we generate or procure renewable resources to meet milestones for renewable energy amounting to a total of 30 percent of retail sales by 2020, at least 25 percent of which must be wind energy. Consistent with Subdivision 7 of that statute, we have also proposed our approach for acquiring these significant wind resources in an efficient and effective manner that will maintain reasonable rates for customers.

- *A plan to meet the Energy Conservation Policy Goal beginning in 2010, as provided by Minn. Stat. §216B.2401.* This statute provides that we are to attempt to achieve annual energy savings equal to 1.5 percent of annual retail energy sales of electricity directly (through energy conservation improvement programs and rate design) and indirectly (through energy codes, appliance standards, and other means). This Plan presents our assessment of the economic potential for additional savings on our system and our initial proposal for addressing the expanded statutory requirements for DSM. The specific programs to achieve these goals need to be developed and approved as part of the Company's 2010 Conservation Improvement Program ("CIP") filing.
- *Retention of existing resources and capacity expansions where appropriate.* Given our customers' significant need for new resources, retaining and expanding the value of existing assets is important to ensuring reasonable costs for our customers. Our existing fleet is located at strategic points on our system that must be maintained for reliability and take the best advantage of existing transmission resources. Our Plan calls for retention and expansion of our nuclear fleet, key coal-fired units, and aging peaking facilities, where appropriate. Our proposals accomplish these expansions in a manner that still achieves the carbon-reduction goals adopted by the 2007 Legislature.
- *Plans to efficiently acquire and install the 2600 MW of intermediate and peaking resources needed to support the additional wind resources and meet our customers' growing needs.* Combined, the load reductions that will be achieved from expanded DSM efforts and energy production provided by new wind resources change the type and timing of new resources needed on our system. Given the intermittent nature of wind energy and increasing peak-day requirements, supporting the reliability of our system will require significant additions of peaking capacity, as well as additional intermediate capacity. When combined with our planned wind additions, these resources offer the most

reasonable cost path for new additions. We propose a plan for developing and acquiring such peaking and intermediate resources in a timely and efficient manner, making the most effective use of available transmission resources and retaining the use of the two-track resource acquisition process adopted in our 2004 Resource Plan.

- *A resource mix that will achieve Minnesota's goal for carbon reductions by 2020.* Our modeling suggests that implementation of our Plan will ensure our compliance with the state's carbon-reduction milestones, providing a 22-percent (6-million ton) reduction in CO<sub>2</sub> emissions from 2005 levels by 2020. Achieving the longer-term goals will be challenging, as we have fewer opportunities for reductions in fossil-fuel use on our system after that point. Nonetheless, we are committed to working to achieve the state's goals of carbon management and reduction in fossil-fuel use, and will continue to work with stakeholders to that end going forward.

Combined, we think our Plan sets forth an appropriate path for meeting our customers' needs in an efficient and effective manner while accomplishing the Environmental Leadership approach adopted by the State and supported by the Company. We welcome discussion of our Plan with all stakeholders.

### Five-Year Action Plan

To successfully ensure our compliance with new statutory requirements, acquire sufficient resources to meet our customers' needs, and maintain reliable service at reasonable rates, we propose the following five-year Action Plan:

- *Significantly increase DSM goals to meet legislative requirements.* To date, we have been successful in meeting the goals established in previous Resource Plans; however, we believe that it will be more challenging to meet the new legislative goals. This Plan presents our assessment of economic potential on our system, consistent with the statute. Based on our evaluation, we

propose to achieve 1.1 percent annual savings, and will continue to explore means of expanding this goal in the future through both expanded customer programs and system infrastructure investments.

- *Install sufficient renewables to meet the state Renewable Energy Standard.* We are committed to meeting the RES, and estimate it will require the addition of approximately 2600 MW of new wind resources on our system by 2020. In our Renewable Energy Plan, we have provided our plan for complying with the RES, outlining our proposal for utility-owned resources, Community-Based Energy Development (“C-BED”), and purchases from third parties to fulfill these requirements. We expect to issue our solicitation for new proposals shortly, and will continue to negotiate with C-BED providers to ensure our compliance with near-term RES milestones.
- *To permit continued operation of our nuclear plants, obtain NRC license extensions and Certificates of Need for a 20-year life extension and power uprates at Prairie Island (“PI”) nuclear generating units 1 and 2 and Monticello.* Our analysis shows that relicensing and continued operation of our nuclear fleet will save customers approximately \$1.1 billion over the 20-year license extension period. We plan to file an application for a Certificate of Need for a 71 MW power uprate at our Monticello plant in early 2008, as well as Certificates of Need for both life extension and power uprates at PI 1 and 2 by Spring 2008.
- *Pursue capacity expansion at our three Sherco coal-fired units.* Our analysis confirms that additional capacity at our Sherco plant remains cost-effective and should be pursued. This Resource Plan seeks approval of the 17 MW project at Sherco 3, and we intend to file separately for approval of an Emissions Reduction Project for environmental improvements and 69 MW capacity expansion at Sherco 1 and 2. To offset the slight increase in carbon emissions due to these capacity expansions, we offer reductions from our Black Dog coal-fired plant or other system resources, which will be detailed



in our upcoming filing. In this way, we can keep this portion of our expansion path carbon-neutral, furthering our overall effort to comply with the state's carbon management goals while meeting increasing customer needs.

- *Investigate and pursue repowering as appropriate to retain and maximize the value of our existing fleet.* Our Metropolitan Emissions Reduction Project ("MERP") offered a great opportunity for reducing emissions while extending the useful life of important system resources. We will continue to pursue potential repowering and life-extension projects and propose them for implementation, if appropriate. Our Black Dog plant offers one such possibility, which we intend to further study as a potential future proposal. In addition, we intend to explore contract negotiations for continued refuse-derived fuel for our Red Wing and Wilmarth plants to determine the future of those facilities.
- *Initiate a new proceeding for approval of a 375 MW intermediate and 350 MW peaking contract with Manitoba Hydro beginning in 2015.* While our Resource Plan no longer indicates a need for additional base load resources beyond investments in our existing fleet, it does indicate substantial need for peaking and intermediate resources. Our analysis confirms that our proposed term sheet with Manitoba Hydro, currently offered for approval in a separate proceeding (Docket No. E-002/CN-06-1581), is a cost-effective resource and fills an important need for intermediate and peaking resources during the planning period. Because the underlying nature of the identified need has substantially changed from the 2004 Resource Plan, we propose to close the on-going proceeding and initiate a new proceeding pursuant to the two-track resource acquisition process approved by the Commission in conjunction with our prior Plan. We believe this new process would be more efficient were we to complete contract negotiations and initiate the new proceeding with the filing of a proposed purchased

power agreement. We expect to make such a filing by Fall 2008. We present in greater detail our proposal for addressing the ongoing proceeding under separate cover, as required by the Commission's Order in Docket Nos.E-002/RP-04-1752, E-002/M-07-2, and E-002/CN-06-1581.

- *Initiate proceedings for up to 320 MW of new peaking resources for 2012 and 600 MW of intermediate resources by 2015.* While the timing and amount of additional resources depends on the timing of wind acquisitions, we project the need for substantial additional resources relatively early in the planning period. Because we believe that these resources would be integrated on our system most efficiently and effectively in a coordinated, planned basis -- such as through the development of an energy campus strategically located on our system -- we expect to propose to develop and construct many of these facilities using the two-track resource acquisition process. Our Action Plan proposes to initiate these near-term processes in late 2008 and 2009, respectively, to ensure the resources are developed in time to meet projected system requirements.
- *Continue and support efforts to ensure that sufficient transmission resources are available to get needed generation to load.* While federal regulatory requirements separate generation from transmission, both are needed to serve customer needs. Our experience with bidding demonstrates the significant influence transmission access and availability has on our resource selection. Given the significant need projected for the planning period, it is important that adequate transmission is developed in a timely fashion. We plan to continue our advocacy before state and federal regulatory bodies to encourage transmission planning and investment, to work with the Midwest Independent Transmission System Operator ("MISO") to facilitate interconnection of resources, and to work with regional utilities to ensure appropriate planning and investments are made. CapX2020's Application for a Certificate of Need for additional transmission resources, currently

pending before the Commission, should help ensure a robust transmission network to reliably meet projected needs.

While these actions seek to implement our preferred course, we recognize the uncertainty over whether all components will be approved and successfully accomplished. Therefore, we have also developed plans to help hedge this risk, making available options that will allow us to best meet our customers' needs. These plans include:

- *Acquisition of resources through the approved resource acquisition process in the event of a projected supply shortfall, and delay, elimination, or reduction of resource acquisitions in the event of projected supply surplus.* In the event any approved resource is not developed and available to meet projected needs on a timely basis -- for example, should a selected resource fail to obtain needed permitting -- we propose to pursue resource acquisitions according to a hierarchy described in this Plan to address the shortfall. We would make the appropriate regulatory filings under our approved resource acquisition process to secure these resources to implement these contingency plans, as needed. Likewise, in the event we anticipate lower needs, such as if our DSM efforts achieve greater success than anticipated by this Plan, we would delay, reduce or cancel planned acquisitions as appropriate. In this way, we retain the flexibility to adapt to changing system requirements in an appropriate manner.
- *Conduct periodic assessments to consider the combined impacts of the many events that will be occurring on our system.* As always, we will continue to carefully monitor developments affecting our system. To the extent that we need to respond to a development in a way not addressed by this Resource Plan, we will file with the Commission under Minn. Rule 7543.0500, subd.5, for a notice of changed circumstance. Careful monitoring and prompt action will be

required to ensure we successfully manage resources during this period of continuing market development and change.

We believe this comprehensive Action Plan will result in a robust, diverse, and reasonable-cost system for providing electricity service to our customers. Our Plan relies on a variety of resources to meet our customers' needs, is designed to fulfill all statutory requirements, and strikes a reasonable balance among competing objectives. We respectfully request that the Commission approve our Plan, and welcome the opportunity to engage in a constructive dialogue with all stakeholders to ensure a sound energy future for our customers.

### Chapter Summaries

To assist in understanding the key components of our proposed Resource Plan, we provide the following summaries of each chapter of this filing.

#### *Landscape*

This chapter provides an overview of the context for this Resource Plan, including a summary of the major legislative initiatives enacted in 2007 and Xcel Energy's overall business plan. This context is important to our Plan, as new initiatives such as the RES and Next Generation Energy Act (addressing C-BED, DSM, and climate change) help drive our Plan.

#### *Forecast*

A resource plan begins with a projection of customer demand for capacity and energy over the planning horizon. This chapter outlines our forecasting methods and results. In it, we discuss the reflection of various methodology changes discussed with the Department since our last Resource Plan and further explain our methods and approach. Our forecast projects annual energy growth of approximately one percent based on the median forecast for the planning period and annual demand growth rate of approximately one percent at a 90 percent forecast level. As explained in this chapter, we believe using this 90 percent

confidence interval for forecasted demand is important to ensuring we have met our planning obligations to MISO and the Mid-Continent Area Power Pool (“MAPP”).

Our forecast for energy and capacity over the planning period is as follows:

**Figure 1-1**  
**Median Net Energy (Mwh)**  
**With 1.1% of Retail Sales DSM Adjustment**

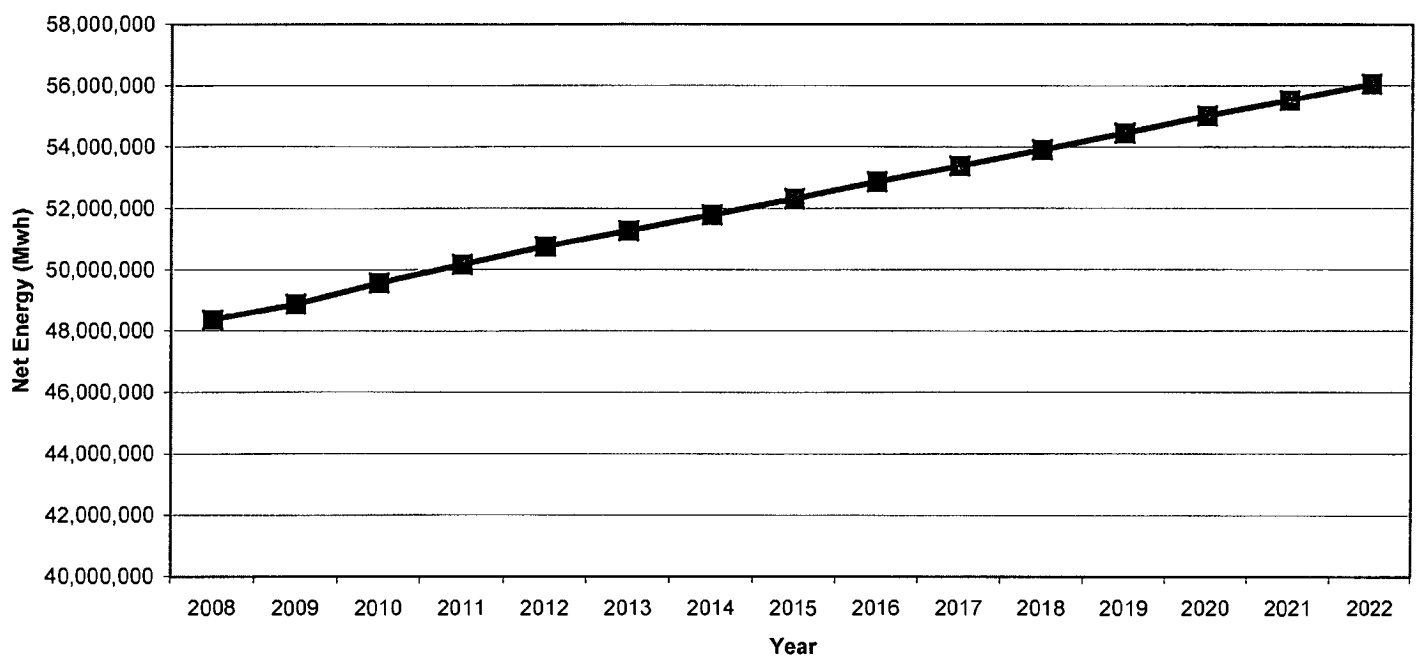
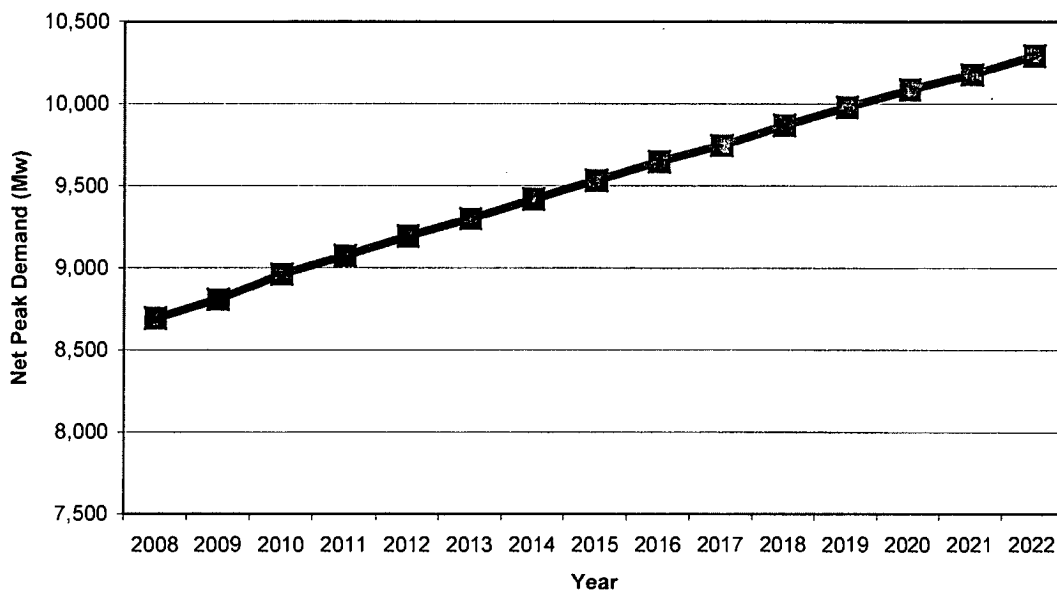
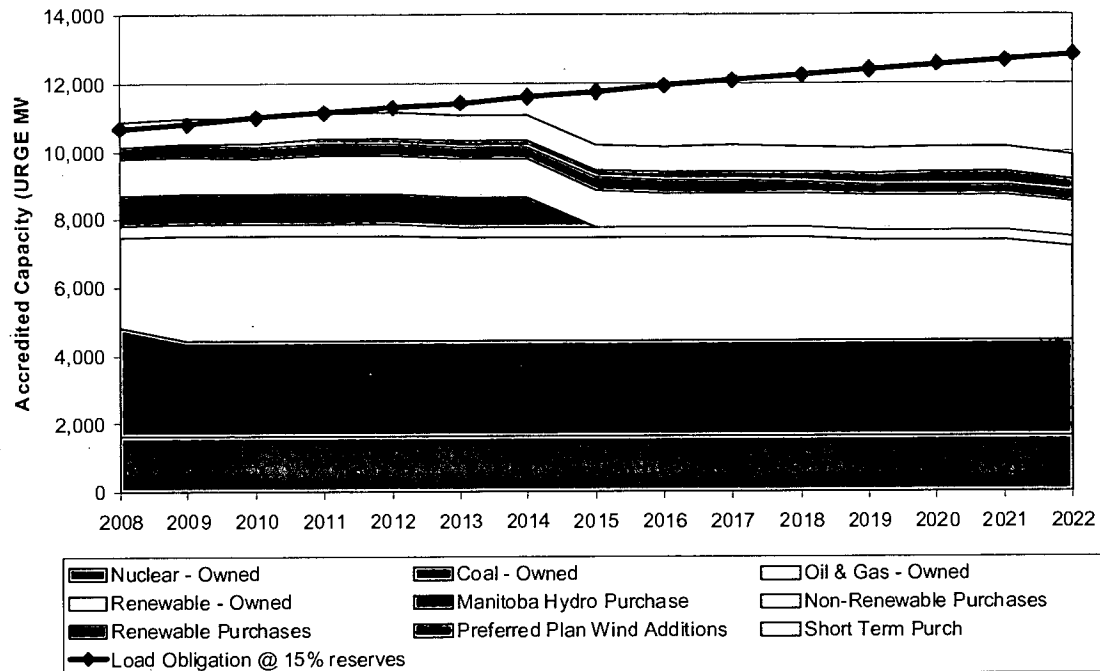


**Figure 1-2**  
**Xcel Energy Median Net Summer Peak Demand (Mw)**  
**With 1.1% of Retail Sales DSM Adjustment**



In addition, we compare the forecasted need to our current capabilities, identifying the overall resource need to be met over the planning horizon:

**Figure 1-3**  
**Requirements and Resources 2008-2022**



Based on this comparison, we anticipate the need for additional generating resources starting in 2012, and reaching approximately 3200 nameplate rated MW by 2022.

#### *Modeling and Preferred Plan*

Sound analysis is critical to developing an appropriate Plan. In this chapter, we present our analytical methods and approach, identifying the various risks posed during the planning horizon and our comparative analyses to reflect them.

We began our modeling using a number of assumptions regarding the forecast, existing resources, renewable energy, and environmental externalities. We then

modeled a number of scenarios varying these assumptions to test sensitivities. This modeling information provides a foundation of how different acquisition and customer growth scenarios will affect our resource needs. Because of the significant amounts of wind resources we will be adding over the planning period, the model results as well as our experience point to the need to acquire significant intermediate and peaking resources. Wind energy will significantly increase, providing large amounts of future energy, while new peaking resources will be required to provide complementary capacity and wind-following capability. As a result, these peaking and intermediate resources should only moderately add to our use of natural gas to supply electric energy, but will add to the amount of gas-fired capacity available to meet peak requirements. Based on our analysis, experience and judgment, we propose the following Preferred Plan:

**Table 1-4**  
**2007 Preferred Plan**

| Preferred Plan | PVRR                                                        | \$60,054,763         | (\$000)            |                                        |                                            |
|----------------|-------------------------------------------------------------|----------------------|--------------------|----------------------------------------|--------------------------------------------|
|                | Planned Additions                                           | Combined Cycle       | Combustion Turbine | Pulverized Coal With CO2 Sequestration | Wind Additions                             |
| 2008           |                                                             | High Bridge CC 624MW |                    |                                        |                                            |
| 2009           | Rahr 12MW                                                   | Riverside CC 508MW   |                    |                                        | 100MW<br>CBED 209MW<br>Grand Meadows 100MW |
| 2010           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2011           | Monticello 68MW                                             |                      | 160MW              |                                        | 200MW<br>CBED 200MW                        |
| 2012           | Sherco 2 30MW<br>Sherco 3 10MW                              |                      | 320 MW             |                                        | 200 MW                                     |
| 2013           | Sherco 1 44MW<br>PI 1 83MW                                  | Black Dog 300MW      |                    |                                        | 200 MW                                     |
| 2014           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2015           | Manitoba Hydro 375MW<br>Manitoba Hydro DIV 350<br>PI 2 87MW | 600 MW               |                    |                                        | 200 MW                                     |
| 2016           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2017           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2018           |                                                             | 600 MW               |                    |                                        | 200 MW                                     |
| 2019           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2020           |                                                             |                      |                    |                                        | 200 MW                                     |
| 2021           | Manitoba Hydro 125MW                                        |                      |                    |                                        |                                            |
| 2022           |                                                             | 600 MW               |                    |                                        | 100 MW                                     |



To assess the robustness of our Plan, we performed several scenarios that tested the impact in terms of costs and environmental impacts of various other potential resources into the Plan. We show the resulting PVRRs of those scenarios in the following table:

Table 1-5

## Preferred Plan PVRRs and Alternative PVRR Differences (\$millions)

|                                          | Base Assumptions | Low Load | High Load | Coal + 20% | Gas +20% | Nuclear+20% | Coal-20% | Gas-20% | Nuclear-20% | Externalities High | Externalities Low | CO2 \$9 | CO2 \$40 | MISO ON | Capital Cost escl 3% | Capital Cost escl 5% |
|------------------------------------------|------------------|----------|-----------|------------|----------|-------------|----------|---------|-------------|--------------------|-------------------|---------|----------|---------|----------------------|----------------------|
| Preferred Plan                           | 60,055           | 58,829   | 61,572    | 60,925     | 62,657   | 60,423      | 59,187   | 58,272  | 59,759      | 60,179             | 60,235            | 55,808  | 67,691   | 59,981  | 61,498               | 64,871               |
| Pref. Plan minus Peakers                 | 460              | 462      | 460       | 460        | 481      | 460         | 460      | 439     | 460         | 460                | 460               | 460     | 474      | 456     | 442                  | 396                  |
| Pref. Plan minus Sherco Upgrades         | 196              | 183      | 214       | 183        | 283      | 196         | 210      | 124     | 196         | 196                | 195               | 225     | 157      | 144     | 191                  | 182                  |
| Pref. Plan minus Monticello Upgrade      | 333              | 325      | 342       | 338        | 377      | 321         | 328      | 285     | 344         | 334                | 334               | 294     | 410      | 301     | 332                  | 328                  |
| Pref. Plan minus Prairie Island Upgrades | 589              | 571      | 610       | 599        | 689      | 574         | 580      | 486     | 603         | 591                | 592               | 504     | 752      | 546     | 575                  | 543                  |
| Pref. Plan minus Manitoba Hydro          | 235              | 233      | 235       | 239        | 310      | 235         | 231      | 155     | 235         | 236                | 236               | 185     | 326      | 210     | 231                  | 214                  |
| Pref. Plan minus Black Dog               | 982              | 1,009    | 947       | 1,033      | 804      | 982         | 918      | 1,126   | 982         | 996                | 1,002             | 884     | 1,186    | 1,015   | 1,007                | 1,065                |
| Pref. Plan with DSM 1.3%                 | (547)            | (545)    | (546)     | (554)      | (720)    | (547)       | (541)    | (444)   | (547)       | (549)              | (550)             | (457)   | (707)    | (528)   | (580)                | (614)                |

Finally, given the rapidly changing marketplace, we believe contingency planning and flexibility is needed to take appropriate, responsive action should selected resources fail to be developed or are otherwise delayed. To that end, we propose a contingency plan that preserves the ability to meet our obligation to serve customers -- including constructing our own facilities -- subject to appropriate regulatory approvals.

### *Renewables*

This chapter discusses our planned efforts to acquire renewable energy to comply with the RES, which is central to our overall Plan. In it, we provide an overview of our Renewable Energy Plan, submitted on December 10, 2007 in compliance with 2007 Session Laws, Chapter 136, Section 10. That plan sets forth our renewable resource acquisition strategy for meeting near-term RES milestones, and outlines our vision for achieving greater balance in our total renewable energy portfolio, striving for utility owned, C-BED, and purchased wind energy in relatively comparable proportions. The Renewable Energy Plan describes our intent to solicit proposals for up to 500 MW of wind energy, allowing us to acquire resources as a hedge for ensuring compliance with initial RES milestones while gaining better knowledge to support future development. We will also continue to work with C-BED developers to provide an initial 500 MW of C-BED by 2010.

This chapter also provides further analysis of the cost and other implications associated with our planned acquisition of renewable resources. Our Plan contemplates the addition of approximately 3,000 MWs of nameplate wind between 2008 and 2022, and our modeling indicates that these are the lowest cost available resources. To formulate the costs for this scenario, we assumed that the Federal Production Tax Credit ("PTC") for wind would be available until 2015, and note that the future of the PTC and transmission access and availability are key and require on-going monitoring and advocacy to support our efforts to meet the RES.

*Existing Fossil and Refuse Derived Fuel Resources*

As evidenced by our MERP project, now well into the construction and completion phases, we believe that it is critical to retain and maximize the value of our existing fleet. This chapter provides an overview of our existing fossil and refuse derived fuel plants, discusses their place in our analysis, and provides information regarding our on-going evaluation of retirements and repowering. We expect to continue to operate all of our existing resources, except as noted throughout the planning period and have reflected in our analysis additional investments needed to support continued operation. We note that some of these resources are good candidates for refurbishment or repowering. In particular, we will be doing life extension and environmental projects at our Sherco Plant, and will be evaluating options for the remaining coal-fired units at our Black Dog plant. We will continue to perform maintenance and monitoring activities at all other existing plants to ensure that we can operate them as long as it makes economic sense. We will continue to evaluate these issues and will bring any proposals to the Commission as they become more fully developed.

*New Resources*

Our Plan anticipates that we will require significant amounts of natural gas peaking and intermediate capacity over the planning horizon. We expect that some additional capacity could be developed at existing sites, but will also seek to establish “energy campuses” in conjunction with other generation facilities and potentially allow for development of biofuels, battery storage and other concepts. The purpose of an energy campus is to locate these needed resources close to the intermittent wind resources they are intended to support and near natural gas and transmission lines to take advantage of the fuel and delivery systems. We believe such a coordinated effort will provide the most cost-effective combination of resources for our customers.

This chapter also discusses the appropriate level, cost and available storage of natural gas-fired capacity on our system. Natural gas plants can offer benefit to a

utility's portfolio due to its lower capital costs and operating flexibility, particularly when used to meet peaking or intermediate needs or to support intermittent resources such as wind energy. However, as the Commission is well aware, natural gas prices have risen over the past several years and have become quite volatile. Determining the appropriate role for natural gas-fired resources on our system is important for the development of this Plan.

As discussed in this chapter, our analysis indicates that our overall portfolio will benefit from the addition of natural gas resources to support the new wind developments, as the wind/natural gas combination provides needed capacity and energy at lower overall costs than other available alternatives. In addition, our analysis indicates that while the share of natural gas capacity in our portfolio would increase from 29 to 40 percent over the planning horizon, the amount of natural gas used to generate electricity would increase from approximately 8 to 13 percent. This result occurs because the anticipated wind resources will supply large portions of our overall energy needs, thus the natural gas resources would generate electricity for relatively few hours of the year.

Finally, our Plan does not call for any new, coal-fired generation for the foreseeable future, as our analysis indicates such resources are not cost-effective for our system at this time, particularly since we believe carbon capture and sequestration must be included for any new coal resources. In our view, failure to reflect the costs of carbon capture and sequestration in the evaluation of new coal facilities would leave customers open to substantial risk of higher costs due to potential future carbon regulation.

### *Nuclear*

Retaining the benefits of our nuclear fleet is a key component of our Plan. This chapter presents our analysis of the value of life extension and power uprates at these facilities, assesses various replacement alternatives, and outlines our plan for

pursuing relicensing for the Prairie Island units and power uprates at both PI and Monticello through upcoming regulatory filings.

Because the Company does not currently see a need to add new base load resources beyond those provided by investments in our existing fleet, we are not planning any new nuclear plants. While we believe new nuclear generation may offer promise because it does not contribute to greenhouse gases, it is not currently in our plans.

### *DSM*

This chapter presents our analysis of the cost-effectiveness of additional DSM. The 2007 DSM legislation requires a significantly higher DSM rate than we have traditionally achieved, even though our current programs are among the most aggressive in the nation. While consistently we have captured 0.6 to 0.8 percent of our retail sales levels in energy efficiency savings, the Next Generation Energy Act sets a goal of 1.5 percent energy savings and requires a minimum goal of one percent, pending approval from the Commissioner of the Department of Commerce.

To achieve these aggressive goals, we need to modify our approach to delivering conservation programs. At this time, we have not yet fully determined the feasibility of achieving these goals or developed a detailed implementation plan. However, our analysis indicates that energy savings of 1.1 percent are achievable and sustainable over the planning period, and we expect to propose this level to the Commissioner for approval. We thus believe it is appropriate to adopt this level for planning purposes, and will continue to work to expand our goals as our plans develop.

### *Distributed Generation*

We have previously studied the potential for distributed generation on our system, but distributed generation resources have not been a significant part of our

resource mix to date. This outlines new studies in hopes that we can obtain more of this valuable resource in the future.

### *Environment*

This chapter outlines how we intend to meet the carbon management and reduction goals. Because of the diversity of our system, we are able to present a resource plan that will manage and reduce our carbon emissions. The chapter also presents a status report on environmental regulations and our compliance with regulations and various Commission Orders regarding environmental issues.

### *Transmission*

Detailed transmission planning now takes place in the Minnesota Transmission Planning Process, which takes place every two years. In conjunction with other transmission-owning utilities in the state, we submitted a Biennial Transmission Plan to the Commission on November 1, 2007. This chapter offers a summary of that plan and outlines how the addition of transmission and our renewable energy goal coincide. We believe transmission infrastructure is on track for our earliest milestones, but critical work and evaluation will be necessary for future renewable energy standard milestones. The CapX 2020 initiative and coordinated transmission study will help provide this critical information to allow us to continue to add renewable energy successfully.

### *Compliance*

In this chapter, we review the various Commission Orders, legislation and administrative rules that provide requirements for this plan. We include a matrix listing of these various requirements to facilitate the compliance review of our Plan.

### **Conclusion**

This Plan offers a great opportunity to implement our shared vision with the state for a sustainable energy future. While implementation of these aggressive goals will

be challenging, we are well prepared to craft new approaches to meeting those challenges.

We offer a comprehensive Action Plan to set us on course for implementing this vision. Our Plan will ensure we implement the sizable amount of new resources required to meet our customers' growing needs, meet new environmental challenges and requirements, and adapt to changing circumstances as they arise. Implementation of our Plan will ensure a robust, diverse, and reliable system to provide reasonably priced, environmentally sound electricity to our customers.

We welcome consideration of our Plan, and look forward to dialogue with stakeholders.

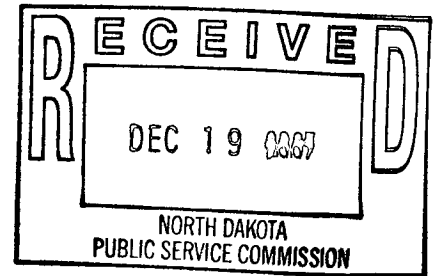




414 Nicollet Mall  
Minneapolis, Minnesota 55401

December 14, 2007

Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101-2147



RE: 2007 RESOURCE PLAN  
DOCKET NO. E002/RP-07-\_\_\_\_\_

Dear Dr. Haar:

Northern States Power Company, a Minnesota corporation ("Xcel Energy," "Company"), is pleased to submit our 2007 Resource Plan to the Minnesota Public Utilities Commission. We submit this Plan in compliance with the Commission's September 28, 2007 Order in Docket Nos. E002/RP-04-1752, E-002/M-07-2 and E-002/CN-006-1518, as well as the Commission's planning rules and various other related Orders.

This Plan incorporates the actions needed to comply with expansive new legislation regarding carbon management, renewable energy, and demand-side management ("DSM") adopted by the 2007 Minnesota Legislature. We support these initiatives, and believe they set the foundation for a reasonable cost, environmentally sound energy future.

Overall, our assessment confirms the continued need for significant additional resources, but indicates that the type of incremental resources has changed from prior plans due to the expansion of wind and DSM. As a result, our remaining needs are for peaking and intermediate resources, as they provide the capacity and wind-following energy needed to complement renewables and DSM. The exceptions are our planned capacity expansions at existing power plants, which – although their economics have changed from the previous plan-- remain cost-effective because of their comparatively low costs.

We believe our Plan addresses the key issues facing the Company and provides stakeholders with clear understanding of our proposed expansion path. Highlights of our Plan include:

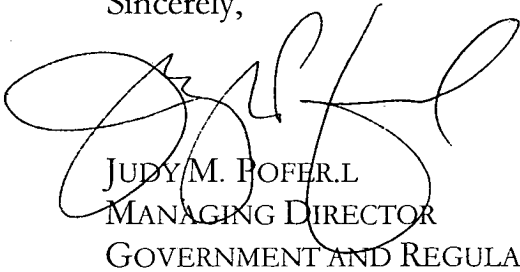
- 2600 MW of additional wind resources, allowing us to comply with our Renewable Energy Standard of 30% renewable energy by 2020.
- Increases in DSM of approximately 30 percent energy savings and 50 percent demand savings.
- Life extension, expanded output, and potential repowering of key nuclear and coal-fired resources.
- Additional purchases from Manitoba Hydro.
- Incremental peaking and intermediate needs of 2300 MWs.
- Carbon reductions of 22 percent below 2005 levels by 2020, a 6-million ton reduction.

Implementation of this Plan will allow us to meet growing customer needs, significantly reduce carbon and other emissions, and maintain reliable service at reasonable rates. We welcome dialogue with stakeholders and look forward to the Commission's consideration of our Plan.

Enclosed are the original and 15 copies of this filing. Copies have also been served on the Department of Commerce, the Office of the Attorney General – Residential Utilities Division, as well as parties to our most recent Resource Plan. Our service list is attached. In addition, interested parties will soon be able to obtain copies from our web site at [www.xcelenergy.com](http://www.xcelenergy.com). We expect to have the filing posted on our web site early next week.

Please contact either me at (612) 330-6125 or Betsy Engelking, Manager, Resource Planning and Bidding at (612) 330-7987 if you have any questions regarding this filing.

Sincerely,



JUDY M. POFERT  
MANAGING DIRECTOR  
GOVERNMENT AND REGULATORY AFFAIRS

Enclosure  
c: Service List

# CERTIFICATE OF SERVICE

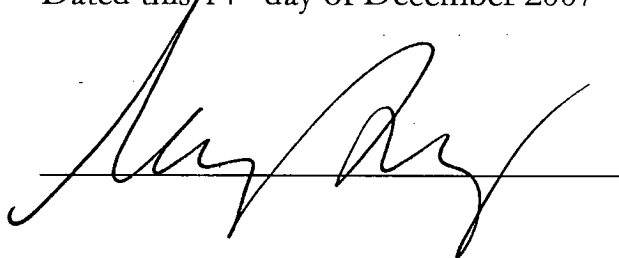
I, Nancy A. Haley, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States Mail at Minneapolis, Minnesota

xx electronic filing

DOCKET No. E002/RP-07\_\_\_\_\_

Dated this 14<sup>th</sup> day of December 2007

A handwritten signature in black ink, appearing to read 'Nancy A. Haley', is written over a horizontal line.

In the Matter of Xcel Energy 2007 Resource  
Plan

E002/RP-  
INITIAL DISTRIBUTION  
12/14/2007

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