



414 Nicollet Mall
Minneapolis, MN 55401

**PUBLIC DOCUMENT
TRADE SECRET DATA EXCISED**

November 3, 2014

—Via Electronic Filing—

Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: REPLY COMMENTS
COMPETITIVE RESOURCE ACQUISITION
DOCKET NO. E002/CN-12-1240

Dear Dr. Haar:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Reply to the October 23, 2014 Comments filed by parties regarding our September 23, 2014 Compliance filing, consistent with the Commission's September 25, 2014 NOTICE SEEKING COMMENTS in the above-referenced proceeding.

This information contains Trade Secret information pursuant to Minn. Stat. § 13.37, subd. 1(b), as the specific information of the individual units can be used by others to deduce the Equivalent Forced Outage Rate (EFOR) and the availability of a unit which could then be used in energy trading. This Trade Secret information unit derives independent economic value, actual or potential, to Xcel Energy, its customers, suppliers, and competitors, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use. This information is subject to efforts of the Company to maintain its secrecy. Disclosure of the Trade Secret information would have a detrimental effect by potentially providing valuable information not otherwise readily ascertainable and from which could be obtained economic value.

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service lists. If you have any questions regarding this filing, please contact me at james.r.alders@xcelenergy.com or (612) 330-6732.

Sincerely,

/s/

JAMES R. ALDERS
STRATEGY CONSULTANT
REGULATORY AFFAIRS

Enclosures
c: Service Lists

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
D/B/A XCEL ENERGY FOR APPROVAL OF
COMPETITIVE RESOURCE ACQUISITION
PROPOSAL AND CERTIFICATE OF NEED

DOCKET No. E002/CN-12-1240

REPLY COMMENTS

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Reply to the October 23, 2014 Comments filed by parties regarding our September 23, 2014 Compliance filing, consistent with the Commission's September 25, 2014 NOTICE SEEKING COMMENTS in the above-referenced proceeding.

In these Reply Comments, we continue to:

- Caution that the assessments of our expected capacity needs in the 2017 to 2019 time period throughout this proceeding have continued to decline and no longer support a capacity addition to our system. The most prudent course for our customers is deferring the addition of new generation for capacity purposes to 2019 or beyond; and
- Support making the public interest determination required for Geronimo's *Aurora* PPA in light of the Commission's assessment of the Company's capacity requirements and the availability of the solar PPA proposals that we have developed through our Solar RFP process (Docket No. E002/M-14-162).

As we explained in our September 23rd filing, we have identified two existing resources that can, with no or low cost modifications, serve as a bridge to meet the small need that may materialize in the 2018 to 2023 time period. We provide further information about the Manitoba Hydro and Blue Lake generation sources that would serve as this

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

bridge, as requested by the Department. We also further explain differences in our most current need assessment from the earlier (2011, updated in 2012, and 2013) need assessments used in this proceeding.

We also explained in our September 23rd filing that our Solar RFP process has identified solar projects that are roughly equivalent to Geronimo's project from a system perspective. To the degree the *Aurora* PPA is no longer needed to meet any capacity need in the identified time period, the public interest assessment should consider whether it allows the Company meet its Solar Energy Standard compliance requirements in the least cost way – and therefore, assessed in relation to the solar PPAs we filed on October 24, 2014 in Docket No. E002/M-14-162.

Our Reply Comments are organized to address these two issues, and those raised by the parties in Comments as follows:

- Company's September 23rd Need Assessment
- Public Interest Determination for Aurora PPA
- Other PPA Evaluation Issues

We additionally provide information requested by the Department in Attachment A to this filing.

REPLY COMMENTS

A. Capacity Need

1. Need Assessment Update as Directed by Commission Order

Calpine and Geronimo Energy characterize our resource need assessment update as an attempt to reargue matters decided by the Commission previously. Rather, in its May 23, 2014 Order, the Commission found that the future adequacy, reliability, and efficiency of power available to the Company, its customers, and the people of Minnesota and neighboring states, depends upon a prudent assessment of need.¹ The Commission also acknowledged that there were several areas of uncertainty in the record regarding the Company's resource needs in the 2017-2019 timeframe, including customer demand, evolving MISO reserve requirements, and possible changes in MISO's accreditation of demand response resources.

As a result of these uncertainties, Xcel Energy proposed in its initial testimony in this

¹ May 23 Order at 31.

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

proceeding that the Commission should require the Company to provide updates on its capacity need in Fall 2014 and 2015 for the express purpose of determining whether projects selected to meet the then anticipated need should be delayed or even cancelled.² The Department supported, and the Commission adopted the Company's proposal. Therefore, we provided the resource need update that the Commission directed in our September 23rd filing.

Our Need Update indicates that our capacity need for the 2017 to 2019 time period is not materializing. This changed assessment is not driven by only a modest change in the customer demand forecast, but rather is primarily due to the greater confidence in the MISO resource adequacy construct. We believe that our September 23rd Need Update appropriately raises the issue that a delay in adding capacity resources to our system is warranted until at least 2019, if not later, and we have therefore proposed ways of addressing that delay.³

2. *Department's Assessment of September 23 Need Update*

We appreciate the thoroughness of the Department's assessment of our Need Update in light of the limited time available to evaluate it. In summarizing its assessment, the Department notes that our update – like all need analyses – is subject to the ever-changing impacts of demand forecasts, planning reserve margins, and available generation capacity. Based on this, the Department concludes that the Commission should focus on the fact that the update shows our need falling within a reasonable range of past forecasts, and as a result, the Commission should stick with its March 2013 determination of our need for the 2017 to 2019 time period, which was based on an updated 2011 forecast.

We respectfully disagree with this conclusion. The trend in our need forecasts from our 2012 update of the 2011 forecast in our Resource Plan docket, to the 2013 forecast we relied upon in this proceeding, to the 2014 forecast we filed on September 23rd, is a steady reduction in our capacity need for the 2017-2019 time period. In addition, there is now greater confidence that the single greatest factor in the swings in

² See, e.g., Ex. 49 (Alders Direct) at 8-9.

³ Our proposal to delay the addition of capacity resources to our system does not constitute a prohibited request for reconsideration by the Company, as some parties contend. Nor would a Commission decision to delay or even cancel any of the proposed capacity projects constitute reconsideration on its own motion of its May 23 Order in this proceeding. Any delay or cancellation would be the natural consequence of the specific directives of the Commission's May 23 Order, which asked the parties to explore delay/cancellation options in the course of their PPA negotiations so the Commission could avoid imposing the costs of any of these projects on ratepayers if the updated need information Xcel Energy was required to file showed the projects were not needed. See May 23 Order at 35, 35-36.

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

need in past need assessments – the impact of MISO’s planning reserve margin calculation – will be stable for that same time period. Taken together with our assessment of generation available, we do not believe a capacity shortfall will materialize before 2019, and may not develop until several years later.

3. *Existing Generation and Near Term Adjustments to Resources*

In Comments, the Department provided a list of identified differences between their Strategist modeling and the Company’s updated assessment of available resources - listing the differences in solar forecast, changes in the retirements of Black Dog 3&4 and Key City, along with changes in UCAP ratings. In addition, we have identified the return to service of French Island 3, the life extensions of both Red Wing and Wilmarth, differences in retirement dates for Granite City and French Island 4, the 2013 Wind RFP additions, and changes in UCAP rating values across the entire resource base. Page 2 of Attachment A to this Reply provides a reconciliation of the majority of the differences between the Department’s Strategist model based on the Fall 2011 Resource Plan Update and the Company’s September 23rd Need Update reflecting current unit operations. We discuss these differences below:

Solar. In our load and resources analysis we have included our estimate of the creditable capacity associated with 129 MW of installed solar generation; 41 MW of small solar installations and community solar gardens, and 88 MW of utility-scale resources. Our thought process for including utility-scale solar was that we propose to install the same amount of utility-scale solar generation regardless of the Commission public interest determination on the Aurora PPA in this proceeding. However, Commission Staff sent Information Requests regarding the issue, and it has become apparent that our approach may not have been sufficiently clear. We outline our solar generation estimates below, and to help clarify the issue, have added a solar adjustment to our below Resource Need Summary that removes the utility-scale creditable solar capacity.

Solar Generation Estimates

Solar Capacity (ELCC MW, at Sys Peak)	2017	2018	2019	2020	2021	2022	2023	2024
Solar - Pre 2013 SES & Cycle 4 RDF	8.6	8.5	8.4	8.2	8.1	8.0	7.9	7.8
Small Scale	8.2	10.5	12.8	15.0	15.9	15.8	15.8	15.7
Solar Gardens	8.0	10.6	13.1	15.7	16.7	16.6	16.5	16.5
Utility-Scale	84.4	85.6	86.8	88.1	88.3	87.9	87.4	87.0

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

Bridge Resources. As part of our Need Update, we identified two resource adjustments that can contribute to maintaining surplus generation in the latter part of the decade – Blue Lake 1-4 and a 75 MW addition to our diversity exchange with Manitoba Hydro. In Comments, the Department asked that we respond to certain questions regarding these two resources:

Manitoba Hydro – Xcel Energy and Manitoba Hydro are currently in discussions regarding another exchange of generation capacity. This new capacity exchange under consideration would utilize existing transmission paths, and would provide 75 MW of capacity between the parties, with Xcel Energy receiving 75 MW of capacity from Manitoba Hydro in the summer and Xcel Energy providing 75 MW of capacity to Manitoba in the winter (similar to the existing 350 MW exchange agreement). The exact term of the additional 75 MW capacity exchange is still being negotiated between the parties, but it is contemplated that it will cover years 2017-2020. The Department asked whether we could rely on the 75 MW in our resource adequacy calculations for MISO. We believe we can, since our existing diversity exchanges have been accepted in resource adequacy calculations.

Blue Lake – In Comments, the Department observed that Blue Lake 1-4 was included in the 2010 Resource Plan (Docket No. E002/RP-10-825) Strategist files the Company provided it through 2030, and asked that we clarify how these resources have been reflected in resource assessments in the recent past. Subsequent to our 2012 update in the 2010 Resource Plan docket, also used in this proceeding, that reflects Blue Lake Units 1-4 in service through 2030, we withdrew our request to extend the depreciable lives of several peaking facilities, including Blue Lake 1-4.⁴ This resulted in its full depreciation at the end of 2012. After that point, we determined that with no further capital investments, these units would be available only through 2019, which we have reflected in our ongoing Strategist modeling – including that done as part of our September 23rd Need Update in this docket.

We summarize the impact of these bridge resources below, and provide a full reconciliation of differences between the resources included in our most recent Need Update with the resources that were part of earlier need assessments in this docket as Attachment A to this Reply.

⁴ Xcel Energy Reply Comments, Docket No. E,G002/D-12-151 (August 6, 2012).

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

**Resource Need Summary
(Including Bridge Resources and Solar Adjustment)**

	September 2014							
	2017	2018	2019	2020	2021	2022	2023	2024
Net Resource Excess (Deficit) – <i>Prior to Addition of Short-Term Resource Tools</i>	254	173	96	(71)	141	85	63	(161)
Blue Lake 1-4 Life Extension				153	153	153	153	
Potential Manitoba Hydro Diversity Agreement	73	73	73					
Net Resource Excess (Deficit)	327	246	169	82	294	238	216	(161)
Utility-Scale Solar Adjustment	84.4	85.6	86.8	88.1	88.3	87.9	87.4	87.0
Adjusted for Solar – Surplus/Deficit	242.6	160.4	82.2	(6.1)	205.7	150.1	128.6	(248.0)

In summary, we continue to believe there will be a 150-250 MW surplus of generation in our portfolio through at least 2018. A generation surplus is projected to continue through 2023, but increasingly depends on aging peaking generation. We continue to recommend what we believe is a conservative approach to assure adequate capacity to meet MISO resource adequacy obligations. Therefore, we continue to recommend that the Commission direct us to work with parties to update PPAs and the Black Dog 6 proposal to reflect 2019 in-service dates and include terms that would allow the resources to be delayed to 2020 or 2021. We propose to bring the results of further negotiations and any further resource need updates to the Commission by April 1, 2015.

4. Resource Availability

In the event the Commission agrees with the Department that capacity should be added to our system in 2018, the Commission is faced with limited choices. To meet a 2018 in-service date, parties have indicated they must be in a position to proceed in early spring 2015. There is very little time to attempt any adjustments to the PPAs that have been negotiated, if necessary. Furthermore, there is risk that the capacity associated with the facilities may not receive MISO accreditation until 2019, even if placed in-service in 2018. Both Calpine and Invenergy are unwilling to shoulder that risk. In fact, Calpine has been unwilling to guarantee accreditable capacity with a Commercial Operation Date (COD) earlier than 2020. Our Black Dog 6 project too needs to get underway soon, but can utilize transmission rights already in place. Therefore, if the Commission judges a 2018 thermal resource is warranted, we believe the most prudent course would be to authorize the Black Dog 6 project.

In Comments, Calpine presents the idea that selection of the Mankato Energy Center expansion will provide greater flexibility in responding to future changes on our system brought about by baseload resource retirements. We presume Calpine's

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

reference has to do with the ongoing discussion in our resource plans concerning the future of coal on our system, and in particular, Sherco 1&2. Major changes to our remaining coal fleet will have big impacts, and need to be considered very thoughtfully. If the Commission accepts our proposal to renegotiate PPAs to reflect a potential need in the 2019-2021 timeframe and bring the result back in April 2015, the Commission will have the benefit of our next Resource Plan filing before making its judgment on the merits of such an argument.

In our Resource Plan, we will present a broad spectrum of alternatives that can be used to meet Minnesota's energy policy goals and pending federal carbon dioxide emission standards. Our preliminary analysis indicates that these policy goals can be cost-effectively achieved not only with additional retirements, but also with strategies that utilize existing generation well into the future without adding new intermediate or baseload resources for some time. We look forward to engaging all of our stakeholders in this important energy policy dialogue.

B. Other PPA Evaluation Issues

There are a number of questions that the parties' comments raise with respect to the *Calpine*, *Invenery*, and *Aurora* PPAs, which we address below.

1. *Calpine PPA*

a. Commercial Operation Date

In Comments, Calpine calls into question whether it could engage in meaningful negotiations regarding a 2020 or 2021 COD for a variety of reasons. While recognizing that delay raises a number of issues that could affect the viability of Calpine's project, we understood in the course of our negotiations with Calpine that it would consider a COD for its project after 2019. This stems from Calpine's unwillingness to commit to a firm 2018 or 2019 COD because of the uncertainty surrounding the timing of its project's interconnection to the grid.

The Department's Comments asked the Company to clarify whether Calpine's option in Section 10.6 of its PPA to delay COD by one year based on its inability to obtain accreditation of the project's capacity can only be exercised once, or whether Calpine can exercise the option again the next year. We clarify that in the course of negotiating this term, we asked Calpine if it was willing to limit this one-year delay option to the initial 2018 COD, so it was not applicable to the 2019 COD. Calpine declined, stating there was too much uncertainty regarding when the network

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

upgrades necessary for its project to be interconnected to the grid would be completed, and hence when the project would be eligible for accreditation. The exercise of this option is therefore not limited.

b. MISO Seasonal Capacity Accreditation

The Company and other MISO Transmission Owners and interested stakeholders are working with MISO to allow generating resources that can reliably operate in summer or winter conditions to obtain capacity accreditation for those periods, regardless of the status of their interconnection agreements. This change will require MISO to modify a number of processes, including those for generator interconnection and supply adequacy. MISO's Planning Advisory Committee, Interconnection Process Task Force, and Supply Adequacy Working group are all currently working on addressing this capacity accreditation issue. As a result of these efforts, MISO has proposed an interim plan to "test" generator interconnection projects on a yearly basis to see if they can qualify as a capacity resource for the next planning year. In addition, MISO has requested feedback on a long-term solution to resolve the issue. At this time, however, the Company cannot advise when this issue will be effectively resolved.

2. *Invernergy PPA*

The Department asked that we confirm whether Invernergy's option in Section 10.6 of its PPA to delay COD by one year based on the inability to obtain accreditation of the project's capacity by COD can only be exercised once, or whether it can be exercised again the next year. As with Calpine's PPA, this option is not limited. We offered the term to Invernergy after it became part of the *Calpine* PPA, which we felt compelled to do, because Invernergy also faced uncertainty regarding when the network upgrades required for its project to be interconnected to the grid and eligible for accreditation would be completed.

The Department also asked that we clarify whether we contemplate that Invernergy's project will operate with an interruptible or firm gas supply. We clarify that the project would operate on interruptible gas, which is consistent with Invernergy's proposal. Our modeling in this proceeding supported this choice, showing that the use of interruptible gas greatly reduces the project's impact on system costs while having no impact on system reliability.⁵ Invernergy's decision to expand its back-up fuel supply at no cost to the Company and its customers also provides added

⁵ Ex. 48 (Wishart Rebuttal) at 20-24.

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

assurance regarding the project's availability to support system reliability.

3. *Geronimo PPA*

The Department asked that the Company explain the risk of compensable curtailment costs under the *Aurora* Solar PPA, which we summarize below:

- The non-compensable curtailment provisions in the *Aurora* PPA are similar to those in the Solar RFP PPAs, modified only to account for and acknowledge the technical differences due to the distributed nature of the *Aurora* project.
- Under the *Aurora* PPA, the Company will pay for economic curtailments. Economic curtailments will be initiated when it is more economic for the Company to curtail the resource (due to negative LMPs, for example) than to let the resource continue to generate (at negative prices). Curtailment of this type limits the total cost paid by customers.
- Unlike wind, solar is an "on-peak" resource, and likely will experience fewer curtailments due to negative LMPs or system balancing issues. This is true for both distribution and transmission interconnected resources.

If its *Aurora* PPA is found to be in the public interest, Geronimo asks the Commission to direct that 100 percent of the costs of the PPA be recovered from the Company's Minnesota ratepayers. This request is based on the Condition Precedent in Section 6.1, which provides that the Company may terminate the PPA if it does not obtain regulatory approval from both the Commission and the North Dakota Public Service Commission.

We note that this issue touches on a significant policy issue with respect to the impacts of Minnesota energy policies on our integrated NSP System in the Upper Midwest. Pursuant to the settlement adopted by the North Dakota Public Service Commission in our most recent rate case, we are currently examining ways that our integrated system can be restructured to avoid the policies of one state having unwanted impacts on the ratepayers of another state. The feedback we have received from North Dakota is that until we adequately address this issue, any new capacity and any new renewable resources we propose to add to our system will be reviewed by the North Dakota Public Service Commission with heightened scrutiny.

Geronimo's request for 100 percent recovery of the costs of its solar PPA from Minnesota ratepayers squarely presents the issue that North Dakota has raised with the Company. We agree with Geronimo that the North Dakota Advanced Determination of Prudence process will take time, and that the Commission can alleviate this issue by ordering that 100 percent of the *Aurora* project's costs be

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

recovered from Minnesota customers.

C. Commission's Public Interest Determination for Aurora PPA

In this docket, the Commission is making its determination regarding whether the Geronimo *Aurora* PPA is in the public interest. We have negotiated in good faith and presented the resulting contract for the Commission's consideration.

In a separate effort we have also conducted a competitive bidding process for solar resources needed to comply with Minnesota's Solar Energy Standard. We have attempted to keep parties informed of the progress of that competitive bidding process through submitting progress reports in Docket No. E002/M-14-162. On October 24, 2014, we filed a Petition in that docket seeking approval of three Solar PPAs, or in the alternative two PPAs if the Commission finds the *Aurora* PPA in this proceeding in the public interest.

We have acknowledged that our request for approval of three solar PPAs in the other proceeding overlaps with the Commission's determination here. With our filing of the *Aurora* PPA in this docket, we asked the Commission to take a holistic view when determining which solar resources we should acquire – presuming that the Commission will want to consider the cost differences between *Aurora* and the other PPAs presented as it makes its public interest determinations in both dockets.

As noted in our Solar PPA Petition, we are not asking the Commission to merge its decision regarding the Geronimo project with its Solar PPA decision. Rather, by holistic view, we mean that there are two alternative solar generation portfolios that can be crafted: (1) should the Commission decide to move forward with the Geronimo solar project, a 187 MW portfolio could consist of the *Marshall Solar* and *MN Solar I* PPAs, and the Geronimo solar project; (2) a 187 MW portfolio could consist of only the *Marshall Solar*, *MN Solar I* and *North Star Solar* PPAs.

In summary, there has been a consistent trend of declining capacity need throughout this proceeding. The current resource need information we submitted September 23rd affirms this trend and indicates that we will have no capacity need until 2019 at the earliest. These circumstances, we believe, further amplify the importance of a holistic view of the resources we need to both serve the capacity needs of our customers and those we need to meet our solar compliance requirements. For the Commission to choose to treat Geronimo's capacity proposal on a different footing than the other capacity proposals in this docket by allowing it to move forward despite the lack of a demonstrable capacity need for the project would be inconsistent with the objectives

**PUBLIC DOCUMENT –
TRADE SECRET DATA EXCISED**

of this docket.⁶

CONCLUSION

Xcel Energy respectfully requests the Commission to:

- Direct the Company to work with Calpine and Invenergy on their respective PPAs, as well as work on its own Black Dog Unit 6 proposal, to update project terms and pricing to reflect in-service timing in the 2019-2021 time period.
- Make its *Aurora* public interest determination in light of the Commission's assessment of the Company's capacity requirements and the least-cost solar resources available to meet Minnesota's Solar Energy Standard.

Dated: November 3, 2014

Northern States Power Company

⁶ The Environmental Intervenors' comments point out the difficulty that the Commission faces. While agreeing with the Company that it currently does not have a demonstrated capacity need, MCEA tries to limit the application of that fact only to the thermal proposals in this docket, but not to Geronimo. At the same time, to avoid the logic that the lack of any capacity need supports evaluating Geronimo's project along with the Solar RFP proposals to determine which should be acquired to meet our solar mandate obligations, MCEA contends that the selection of Geronimo is justified because it is a capacity resource, unlike the Solar RFP proposals. *Compare* MCEA Comments, note 5, *with id.* at 6.

Owned Generation - Unit Name	Strategist								
	UCAP (MW)	2017	2018	2019	2020	2021	2022	2023	2024
[TRADE SECRET BEGINS]									
King 1									
Sherco 1									
Sherco 2									
Sherco 3 - Xcel Portion									
Monicello 1									
Prairie Island 1									
Prairie Island 2									
Black Dog 5/2									
High Bridge									
Riverside									
Angus Anson 2									
Angus Anson 3									
Angus Anson 4									
Blue Lake 1									
Blue Lake 2									
Blue Lake 3									
Blue Lake 4									
Blue Lake 7									
Blue Lake 8									
Flambeau 1									
French Island 3									
French Island 4									
Granite City 1									
Granite City 2									
Granite City 3									
Granite City 4									
Inver Hills 1									
Inver Hills 2									
Inver Hills 3									
Inver Hills 4									
Inver Hills 5									
Inver Hills 6									
Wheaton 1									
Wheaton 2									
Wheaton 3									
Wheaton 4									
Wheaton 5									
Wheaton 6									
Grand Meadow									
Nobles									
Pleasant Valley									
Boxlers Wind									
Bay Frost 4									
Bay Frost 5									
Bay Frost 6									
French Island 1/2									
Red Wing									
Winmarth									
Wisconsin Hydro									

[TRADE SECRET ENDS]

Power Purchase Agreements	Strategist								
	UCAP (MW)	2017	2018	2019	2020	2021	2022	2023	2024
[TRADE SECRET BEGINS]									
Invenengy Cannon Falls LLC									
JSP-Cottage Grove									
Manitowish Energy Center, LLC									
Manitoba Hydro Electric Board - 125 MW (year-round) system capacity and energy purchase									
Manitoba Hydro Electric Board - 350 MW Diversity Sale Agreement									
Manitoba Hydro Electric Board - 375/325 MW System Power Sale Agreement									
Small Hydro PPA's (existing)									
Diamond K Dairy, Inc.									
Fibo-Minn LLC									
Gas Recovery Systems Energy, LLC (Pine Bend)									
KODA Energy, LLC									
Laurentian Energy Authority 1, LLC									
St. Paul Cogeneration, LLC									
WM Renewable Energy, LLC. (Burnsville formerly MN Methane)									
Barren County, Wisconsin (Waste-to-Energy Facility)									
Heenequin Energy Resource Co., Limited Partnership (HERC)									
Best Power Ind. LLC (St. John's Solar)									
Slayton Solar, LLC									
Wind PPA's (Existing)									
Rock Actua									
Courtenay									
Odel									

[TRADE SECRET ENDS]

2017 2018 2019 2020 2021 2022 2023 2024
Differences between Xcel Energy's 2014 Resource Need Assessment (minus) DCC's 2011 Resource Plan Update Strategic Model

[TRADE SECRET BEGINS]

Wind Additions (2021 Accreditation)

French Island 3 Return to Service (Spring 2016)

Changes in Retirement Dates	DOC	XE 2014
French Island 4	2020	2023
Granite City 1-4	2013	2023
Blue Lake 1-4	2025	2016
Red Wing	2017	2027
Wilmarth	2017	2027

Differences in Unit Ratings

Solar Forecast Differences

LMF Forecast

TRADE SECRET ENDS]

CERTIFICATE OF SERVICE

I, Tiffany Hughes, hereby certify that I have this day served copies of the foregoing document or a summary thereof on the attached list of persons.

by depositing a true and correct copy or summary thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota; or

via electronic filing

Docket Nos. E 002/ CN-12-1240
 E 002/ M-14-788
 E 002/ M-14-789

Dated this 3rd day of November 2014

/ s/

Tiffany Hughes
Records Analyst