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VIA ELECTRONIC FILING AND OVERNIGHT DELIVERY



November 22, 2006

Ms. Illona Jeffcoat-Sacco, Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard Ave., Dept. 408
Bismarck, ND 58505-0480

**Re: Public Service Commission Federal
2005 Energy Policy Act Standards Investigation
Case No. PU-06-290**

Otter Tail's Comments Federal 2005 Energy Policy Act Standards Investigation

Dear Ms. Jeffcoat-Sacco:

On October 23, 2006, the Commission held an EPACT workshop. At the conclusion of the workshop, the Commission set November 23, 2006 for receiving comments. Enclosed are the comments from Otter Tail Corporation d/b/a/ Otter Tail Power (Otter Tail).

An electronic copy is being sent to you at IJS@nd.gov and Sandi Scott at slscott@nd.gov today. Otter Tail has provided an original and 7 copies of Otter Tail's comments in the above-referenced Docket.

Please contact me at (218) 739-8595 or dprazak@otpc.com if you have any questions regarding this filing.

Yours truly,

A handwritten signature in black ink, appearing to read "David G. Prazak", is written over a large, stylized flourish.

David G. Prazak
Supervisor, Pricing,
Regulatory Services

Enclosures

STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION

Public Service Commission Federal
2005 Energy Policy Act Standards Investigation

Case No. PU-06-290

COMMENTS OF OTTER TAIL POWER COMPANY

I. BACKGROUND

On July 26, 2006, the Commission opened an investigation to consider whether to propose rules to adopt any or all of the new PURPA standards suggested under sections 1251, 1252 or 1254 of the Energy Policy Act of 2005 (“Act”). The Order also set a workshop to discuss some of these issues.

The Order further encouraged the public to provide comments by October 6, 2006 (later extended to October 19, 2006).

On October 18, 2006, Otter Tail informed the Commission that it would not provide any written comments at that time. Otter Tail added it would participate in the workshop scheduled for October 23, 2006.

On October 23, 2006, the Commission held a workshop at the State Capitol in Bismarck, North Dakota. Otter Tail attended the workshop. The issues considered were:

1. Whether the Commission should adopt any or all of the standards under sections 1251, 1252 or 1254 of the Act;
2. Whether the Commission should adopt different or modified standards from those described in sections 1251, 1252 or 1254 of the Act; and,
3. What compensation, if any, should be made available to consumers under PURPA section 122 for their reasonable expenses incurred by participating or intervening in this proceeding.

At the conclusion of the workshop, the Commission set November 23, 2006, for receiving written comments.

II. INTRODUCTION

Otter Tail Corporation d/b/a/ Otter Tail Power (Otter Tail), has assembled comments for the Commission and others in order to help the Commission make an informed decision regarding whether to adopt any or all of the standards under sections 1251, 1252 or 1254 of the Act or whether the Commission should adopt different or modified standards from those described in sections 1251, 1252 or 1254 of the Act.

Otter Tail will address each of the proposed new standards, as they were outlined in the October 10, 2006, e-mail from the Commission, and in the Order of July 26, 2006, and state its position. Also, Otter Tail will include comments provided to other State Commissions regarding the Act.

III. NET METERING – SECTION 1251

Is this standard already sufficiently in place under the Commission’s existing rules requiring net metering for qualifying facilities with less than 100 kW of generating capacity?

Otter Tail response: Yes. The North Dakota Administrative Rules, Chapter 69-09-07-09, covers the standard.

The Commission should not adopt the standard. Otter Tail agrees with the response from Montana-Dakota Utilities in their comments.¹

IV. FUEL SOURCES – SECTION 1251

Workshop Question: What is each utility’s current fuel source mix and how was it determined?

Otter Tail response: In general, 73 percent of our fuel source mix is coal. About 17 percent is purchases, 7 percent is hydro, and the remainder is from wind, biomass, fuel oil, solid waste and natural gas. Attached as Appendix A is a copy of a brochure titled “Your electricity”, which identifies fuel sources, air emissions, and how customers can save money.

The mix was determined by geographic and other factors including the Integrated Resource Planning Process (IRP) - which follows a least-cost approach, and other factors, and the recent legislation in Minnesota regarding the Renewable Energy Objective (REO). Otter Tail believes fuel diversity will continue to develop based on economics, technology, and legislation such as the Minnesota REO. Therefore, Otter Tail believes this standard should not be adopted, as it is unnecessary.

V. EFFICIENCY – SECTION 1251

Workshop Question A: What plans are in place to increase generation efficiency?

Otter Tail Response: As reported at the workshop, Otter Tail has no significant projects planned. See one planned project in the response to Question B.

Workshop Question B: What efficiency increases have been realized in the past 10 years?

¹ Case PU-06-290. Montana-Dakota Utilities Comments on EPACT Standards. October 19, 2006. IB., pp 3-5.

Otter Tail Response: During the workshop, Otter Tail provided a couple of efficiency improvement examples from the Big Stone Plant in South Dakota. Commissioner Wefald requested that Otter Tail provide additional information in its comments. Below is a summary of the efficiency improvements at the individual plants.

In general, efficiency improvements are made to a) restore lost efficiency and b) improve efficiency over original design. Otter Tail is reporting both where appropriate.

Coyote Station – near Beulah, North Dakota:

2003

- LP Turbine Upgrade - New design rotor provided a 2 percent improvement in plant efficiency.
- Boiler Controls Upgrade -Indeterminate efficiency improvement.

2004

- Changes in the lime slurry preparation process to increase the efficiency of the scrubber. This improved sulfur dioxide removal from the flue gas stream with the same amount of lime input to the system. Increased scrubber efficiency about 3 percent.

2004, 2005, 2006

- Three year project to modify baghouse to membrane bags and acoustical horns for cleaning. This decreased differential pressure across the baghouse by ~.5 inches of water.

2005, 2006, 2007, (Planned for 2008, 2009)

- The plant has retrofitted 4 out of 10 cooling tower fans to Variable Frequency Drive (VFD) control. When this project is completed, we will see approximately 1 MW reduction in station service for 75 percent of the year.

Projects at a scheduled interval to restore lost plant efficiency:

Quarterly

- High pressure water washing the boiler restores ~2 percent of the boiler efficiency

Yearly

- Foam cleaning the turbine once a year recovers lost MW and improves high pressure turbine steam flow passing capacity by ~3 percent.

2006

- Replace air heater baskets to restore lost efficiency due to degrading of the baskets. Reducing pressure drop across air heater by 6 inches of water is equivalent to 1 MW station service on ID fans.

Big Stone - near Milbank, South Dakota

1995

- Switch from lignite to sub-bituminous coal increased boiler efficiency by around 5 percent due to lower moisture levels in the fuel.

1996 & 2005

- Turbine replacement projects in 1996 (low pressure) and 2005 (high and intermediate pressure) have increased plant efficiency by a total of about 3 percent.

Hoot Lake – near Fergus Falls, Minnesota

1991 & 1992

- Control system change out. Indeterminate efficiency improvement.

2005

- Turbine control upgrade. Indeterminate efficiency improvement.

Hydro Units – various Minnesota locations

2004

- A complete turbine overhaul of Central Hydro. Approximately 3% efficiency improvement.
- A complete turbine overhaul of Pisgah Hydro. Approximately 3% efficiency improvement.

2006

- A complete turbine overhaul of Dayton Hollow #2 unit turbine. Too early to determine efficiency improvements.

Combustion Turbines - various locations

2000

- In three combustion turbines (CT) Otter Tail installed a Mee-Fog system which cools the inlet air to the CT compressor, thereby lowering the firing temperature of the combustion and exhaust gas temperature. This improved the three Otter Tail CT units by about 10 percent - which is up to 2 MW for each unit.

2003

- Intermediate Peaking Facility Selection: Otter Tail commissioned a new CT - a GE LM6000 Aeroderivative design gas turbine over a Frame design turbine. The aeroderivative design has a number fuel efficiency advantages over the Frame design turbine - including a very sophisticated control system that gives precise fuel and air control. The GE LM6000 is approximately 30% more fuel efficient than the frame design.

Workshop Question C: To what extent are generation efficiency improvements considered as part of integrated resource planning?

Otter Tail Response: During the workshop, Otter Tail responded that generation efficiency improvements are an integral part of the IRP process. Otter Tail provides the avoided cost information back to the plants so they can perform economic analysis on efficiency related projects.

The Minnesota Public Utilities Commission is considering whether to include this standard in its resource planning requirements. Otter Tail includes its recommendations² to the Minnesota Commission on this question:

- Allow flexibility in the manner in which utilities model fossil-fuel plant efficiency options. Otter Tail's main concern is whether the Commission and others will want these efficiency plant options modeled within the IRP model or if those can be done outside the model. For example, Otter Tail currently uses results from the IRP in a spreadsheet model developed specifically for the plant engineers to model their efficiency proposals. Their results then are fed directly into the model in the next IRP. The options are selected outside the IRP model but are part of the IRP process. Including the plant efficiency options as alternatives within the IRP model would create significant complexities, because of how IRP models are structured, and greatly would increase model run times, possibly by days.
- Consider that any ongoing activities related to fossil-fuel efficiencies need to meet U.S. Environmental Protection Agency (EPA) requirements with respect to EPA New Source Review (NSR) and prescribed in 40 CFR 52.21.

Workshop Question D: To what extent do competitive pressures drive improvements in generator efficiency?

Otter Tail Response: During the workshop, Otter Tail responded that these pressures certainly drive improvements. One of Otter Tail's long-standing goals is to produce electricity at the least cost possible.

Workshop Question E: Is ten years an appropriate planning horizon for improving generator efficiencies?

² Docket E-999-CI-06-159. Otter Tail's Comments on the Fossil-Fuel Efficiency Standard, October 6, 2006.

Otter Tail Response: During the workshop, Otter Tail responded that it doesn't believe there should be a set planning horizon. Otter Tail encourages the Commission to not adopt this standard.

The IRP process that Otter Tail is required to follow in Minnesota, which includes a system-wide view, utilizes a 20-year planning horizon. This process is updated every 2-3 years. Otter Tail believes this process has served Otter Tail and its customers well.

Workshop Question F: Does locational marginal pricing encourage or discourage increased generation efficiency over a period of years?

Otter Tail Response: During the workshop, Otter Tail responded that it believes that LMP encourages increased generation efficiency. Simply stated, markets drive efficiency improvements.

In summary, Otter Tail's believes this standard should not be adopted. It is unnecessary and could constrain or complicate a process that is already working well. The integrated resource planning process includes generation efficiency. In addition, economic and financial considerations encourage utilities to continue to seek ways to make their generation more efficient

VI. SMART METERING – SECTION 1252

Workshop Question A: How does the utility see facilitating Real Time Pricing, Critical Peak Pricing and Time of Use pricing for each customer class. (NARUC PURPA Manual, Page 73)

Otter Tail Response: During the workshop, Otter Tail responded that it believes mandated costs can be a hindrance.

Below are excerpts from Otter Tails responses³ to the Minnesota Commission on this topic.

Load management at Otter Tail dates back to the 1940's when time clocks were installed to control water heaters. And Otter Tail is still providing innovative rates and load management programs that meet the needs of our customers and the region. Otter Tail continues to add new meter technology and related infrastructure whenever it becomes economic for both our customers and the company.

For a full explanation of Otter Tail's response in Minnesota, please see Appendix B.

Otter Tail encourages the Commission not to adopt any standard, but address each utility and the type of metering technology and load management infrastructure on a case-by-

³ Docket E-999-CI-06-159. Otter Tail's Comments on the Smart Metering Standard, November 1, 2006

case basis. The reasons not to adopt the standard are clear – the Commission, the utility and their customers need flexibility, not a one size-fits-all approach. These types of standards can tie our hands and force uneconomic decisions. These decisions are better made at the utility and state level.

VII. INTERCONNECTION – SECTION 1252

Workshop Question A & B: Please describe the interconnection process your utility follows and compare it with the NARUC model (NARUC PURPA Manual, page 94) and the FERC small generator interconnection rules.

Otter Tail Response: At the workshop Otter Tail responded first by distributing a prepared handout, which is included in these comments as Appendix C. Otter Tail follows a separate interconnection process for transmission and distribution.

Next, Otter Tail addressed its generator interconnection materials on its website. For transmission-related interconnections, Otter Tail follows MISO interconnection procedures⁴. This is shown in the Interconnection process flowchart developed by Otter Tail Power Company⁵.

As for generator interconnections on the website, Otter Tail follows the Minnesota Statewide Distributed Generation Interconnection Process⁶, as is required by state law⁷. The Minnesota interconnection process is similar to the NARUC interconnection model. Otter Tail prefers the Minnesota interconnection process as it is clearer and provides more information to the customer.

Workshop Question C: Discuss - “Have interconnection requirements been a reason for customers not choosing to interconnect?”

Otter Tail Response: During the workshop, Otter Tail responded that it was not aware of a customer that did not choose to interconnect due to interconnection requirements.

Otter Tail believes that the Commission should not adopt this standard because it’s unnecessary and may limit flexibility. The North Dakota utilities that also operate in Minnesota have an interconnection process approved in that state that may also work well in North Dakota. It is desirable to have the flexibility to work with the Commission and other utilities to develop a process for interconnection in North Dakota which may or may not follow the specifications in Section 1254 (a)(15) of the Energy Policy Act.

⁴ <http://www.midwestmarket.org/page/Generator+Interconnection>

⁵ http://www.otpc.com/NewsInformation/PDF/DG_TransOrDistFlowChart.pdf

⁶ To see the flowchart, go to http://www.otpc.com/NewsInformation/PDF/DG_A1FlowChart.pdf

⁷ Minnesota Statute 216b.1611

VIII. CONCLUSION

Otter Tail wants to commend the Commission for setting up a workshop to discuss these standards in a public setting and provide written comments. Otter Tail believes it was a valuable exercise in order to discover how other utilities address federal issues.

Otter Tail encourages the Commission not to adopt any standard in this proceeding. The standards in question have already been reviewed by the Commission or, in Otter Tail's opinion, are not necessary. Otter Tail re-emphasizes that the Commission, the utility and their customers need flexibility, not a one size-fits-all approach. These types of standards can tie our hands and force uneconomic decisions. These decisions are better made at the utility and state level.

November 22, 2006

Respectfully submitted:

Otter Tail Corporation d/b/a
Otter Tail Power Company

/s/ DAVID G. PRAZAK

Supervisor, Pricing
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56538-0496

Appendix A:

Otter Tail Brochure “Your electricity”

Your electricity



Fuel sources

Air emissions

Your choices

OTTER TAIL
POWER COMPANY

www.otpco.com

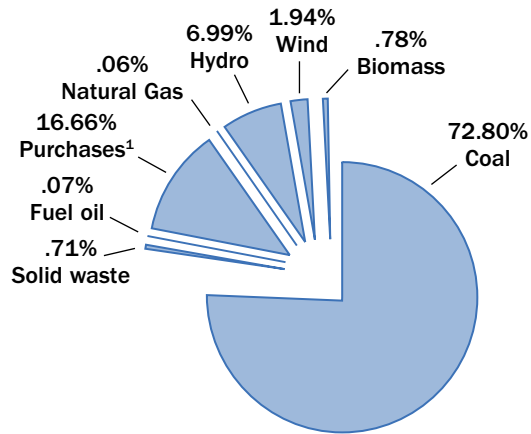
Use your electricity wisely to help the environment

Fuels used to generate electricity have different costs, reliability, and air emissions

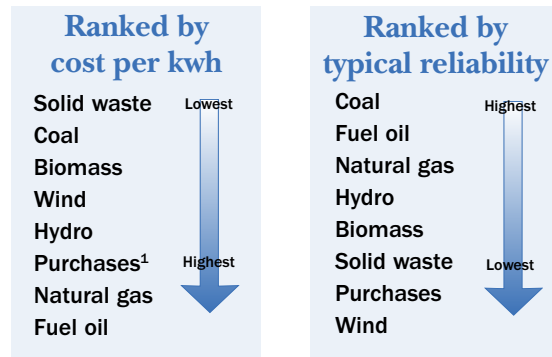


How are your electricity needs met?

The following chart shows the primary fuel sources used to produce your electricity in 2005.



Based on 2005 data, the following charts rank Otter Tail Power Company's energy sources on the basis of cost and reliability.



¹ We purchase electricity from various fuel sources throughout the region that may or may not include coal, hydro, fuel oil, nuclear, natural gas, or others. Otter Tail Power Company does not own any nuclear generating facilities, and we would not be likely to purchase nuclear-based electricity because utilities that own nuclear generating facilities typically use their lowest-cost resources, including nuclear, to serve their own customers.

What air emissions are produced?

Fuel type	Measured in pounds per 1,000 kilowatt-hours				
	Carbon dioxide	Sulfur dioxide	Nitrogen oxides	Particulate matter	Mercury
Coal	2,452	7.955	7.866	0.5668	0.00006440
Fuel oil	2,915	8.460	10.080	1.0400	0.0000090
Biomass	4,212	0.440	2.840	0.5300	0.00000270
Solid waste	2,384	7.480	9.700	0.0012	0.00005200
Purchases	1,839	5.537	3.982	0.3257	0.00004319
Natural Gas	1,386	0.008	1.290	0.0800	0.00000001

How do air emissions affect the environment?

Carbon dioxide (CO₂) is the principal greenhouse gas linked to global warming. **Nitrogen oxides** (NO_x) and **sulfur dioxide** (SO₂) contribute to acid rain; nitrogen oxides also contribute to smog. **Particulate matter** (sometimes called soot) contributes to asthma attacks and other respiratory illness. **Mercury** accumulates in some fish to levels exceeding current health department guidelines. *The Minnesota Pollution Control Agency is responsible for ensuring that emissions from utilities meet air-quality standards for nitrogen oxides, sulfur dioxide, and smog.*

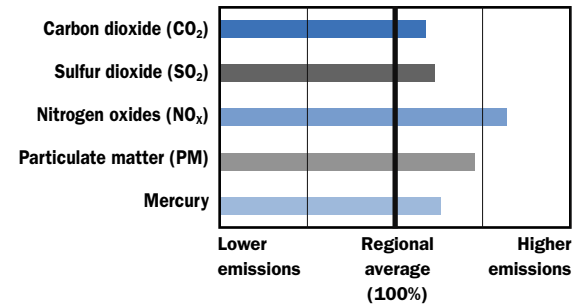
Wind and solar power produce none of these air emissions. Nuclear energy does not produce these air emissions but does produce both high- and low-level nuclear waste. Large hydropower may alter ecosystems and cultural resources, depending upon the location and design of the facility.

Statewide, coal-fired power plants in Minnesota generate 50 percent of all sulfur dioxide pollution, 35 percent of all carbon dioxide pollution, 43 percent of all mercury pollution, and 16 percent of all nitrogen oxides pollution.² All other generation sources contribute a small amount of pollution.

² Pollution is emitted from many places, such as industrial and commercial sources, cars, trucks, and home heating.

How does Otter Tail Power Company compare with the regional average?

The chart below shows how our company's air emissions compare with the regional average air emissions.



What can you do to help reduce air emissions?

You can participate in Otter Tail Power Company's energy-conservation programs. Minnesota customer participation in these programs between 1992 and 2005 reduced the need to produce 146,401,910 kilowatt-hours of electricity in 2005, a 3.59 percent savings. These annual savings resulted from both new and ongoing participation in our energy-conservation programs. By not producing this electricity, we avoided the following air emissions:

Air emission	Tons
Carbon dioxide	156,949
Sulfur dioxide	496
Nitrogen oxides	475
Particulate matter	35
Mercury	0.004

Save money by using electricity wisely

Conservation Improvement Programs (CIP) play a key role in planning to meet future electricity needs. In 2006 we continue to offer incentives and rebates to our customers who install energy-efficient systems.

Residential programs

- House Therapy—Home weatherization for low-income households.
- HotPack—A free water-saver kit to customers who install an electric water heater.
- Heat pump options—Rebates or financing for installing an air-source or geothermal heat pump.
- Residential demand control—A lower rate for customers who let us control their system during peak periods. A leasing program and rebates are available for installing a residential demand controller.
- CoolSavings—A \$5 monthly bill credit from June through September for customers who let us control their central cooling system during peak periods.
- Change a light—A fall in-store instant rebate promotion on compact fluorescent bulbs.

Commercial/industrial programs

- Rebates and grants—Businesses may qualify for a rebate for installing high-efficiency refrigeration, lighting, motors, heat pumps, or cooking equipment.
- Financing—Low-interest loans are available for efficiency-improvement projects.

Energy-saving tips

- Wash clothes with cold water.
- Replace your aging washing machine with a high-efficiency front-loading washer to reduce energy, water, and detergent use by up to 60 percent.
- Use task lighting instead of general lighting for work and leisure activities.
- Close shades and blinds during the day to keep your home cooler and open them in the evening to take advantage of natural light.
- Replace old refrigerators with more efficient models.
- Use electric fry pans, toaster ovens, and microwave ovens when cooking single-dish meals.

TailWinds renewable wind energy

Emission-free wind-generated electricity is available from Otter Tail Power Company. For a few more pennies a day you can support the advancement of wind power through Tail Winds.



To learn more

Checkout these resources:

www.ConservingElectricity.com for energy saving help for kids, homeowners, and businesses.

www.otpco.com or call 800-493-3299 for more about the Otter Tail Power Company programs described here.

www.commerce.state.mn.us or call 800-657-3710 for energy saving tips from the Minnesota Department of Commerce.

www.pca.state.mn.us/programs/electricity.html or call 651-297-2274 or 800-646-6247 for information about air emissions from the Minnesota Pollution Control Agency.



215 South Cascade
Fergus Falls MN 56537
www.otpco.com

Appendix B:

Otter Tail's Minnesota Comments on
Smart Metering
E-999-CI-06-159

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpco.com (web site)

VIA E-FILE

November 1, 2006

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147



Re: In the Matter of Commission Considerations and Determinations Under the Electricity Title, Section XII, of the Federal Energy Policy Act of 2005.
Docket No. E-999/CI-06-159
Otter Tail's Comments on the Smart Metering Standard

Dear Dr. Haar:

Otter Tail Corporation d/b/a Otter Tail Power Company (Otter Tail) provides its comments, submitted via electronic filing, regarding whether to adopt the smart metering standard of the Energy Policy Act, a comparable standard or different standard, or no standard. In addition, Otter Tail will provide an assessment of current practices and proposals for change.

As will be seen from Otter Tail's discussion of our history of metering and load management, Otter Tail has embraced changes available through technology as they become economically advantageous to our customers and the company. Otter Tail believes it has been quite successful in the regard for over 60 years. From Otter Tail's perspective, each utility has made investments in metering technology and load management infrastructure based on its unique service territory mix, energy and demand characteristics, and customer offerings.

Therefore, Otter Tail encourages the Commission not to adopt any standard, but address each utility and the type of metering technology and load management infrastructure on a case-by-case basis. The reasons not to adopt the standard are clear – the Commission, the utility and their customers need flexibility, not a one size-fits-all approach. These types of standards can tie our hands and force uneconomic decisions. These decisions are better made at the utility and state level.

Otter Tail respectfully requests Otter Tail's comments in the above-referenced Docket be accepted as being in full compliance with the filing requirements of the Minnesota Public Utilities Commission. Also included is an Affidavit of Service.

Please contact me at (218) 739-8595 or dprazak@otpco.com if you have any questions regarding this filing.

Yours truly,

/s/ DAVID G. PRAZAK
Supervisor, Pricing,
Regulatory Services

Enclosures

STATE OF MINNESOTA)
) SS
COUNTY OF OTTER TAIL)

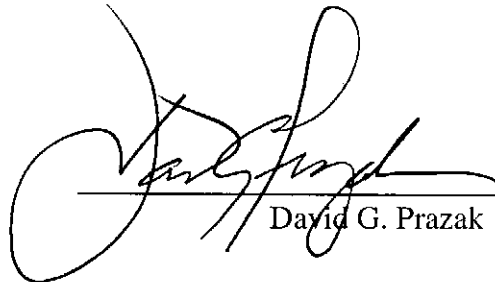
AFFIDAVIT OF SERVICE

RE: In the Matter of Commission Considerations and Determinations Under the
Electricity Title, Section XII, of the Federal Energy Policy Act of 2005.
Docket No. E-999/CI-06-159

I, David G. Prazak, being first duly sworn, depose and say:

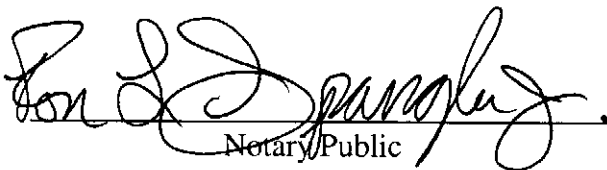
That on the 1st day of November 2006, I served the attached comments or summary
thereof in the above-referenced matter

- by facsimile transmission followed by first class mail
- by electronic mail
- e-filing to Burl Haar and Sharon Ferguson
- by first class mail to all persons on the attached service list
- by overnight mail



David G. Prazak

Subscribed and sworn to before me this
1st day of November 2006.



Notary Public



Otter Tail Power Company

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MN PUC Docket No. E-999/CI-06-159

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STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Commission Considerations and
Determinations Under the Electricity Title, Section XII,
of the Federal Energy Policy Act of 2005.

Docket No. E-999/CI-06-159

COMMENTS OF OTTER TAIL POWER COMPANY

I. INTRODUCTION

On July 27, 2006, the Commission examined the five standards of the Federal Energy Policy Act of 2005 (Act) and found that 2 of the 5 standards (Fossil-Fuel Generation Efficiency and Smart Metering) require additional consideration.

On August 15, 2006, the Commission issued its Order Taking Action Under Federal Energy Policy Act of 2005 and Soliciting Comments. The Commission will consider whether to adopt the smart metering standard of the Act, a comparable standard or different standard, or no standard. Furthermore, the Commission delegated to the Executive Secretary the authority to frame the issues set for comment, to set comment timeframes, and to otherwise manage the investigation.

On August 22, 2006, the Executive Secretary issued a Solicitation of Comment on the Smart Metering Standard. The Executive Secretary is seeking two types of comments: an assessment of what is currently in place, and proposals for change.

II. SUMMARY OF REPLY

Otter Tail Corporation d/b/a/ Otter Tail Power (Otter Tail), has assembled comments for the Commission and others in order to help the Commission make an informed decision regarding whether or not to adopt the Smart Metering Standard, a comparable or different standard, or no standard.

Otter Tail is providing comments regarding our current practices and comments on future proposals. In the discussion of our current practices, Otter Tail provides a summary of our load management history because use of load management achieves some of the same goals as smart metering – to keep customers’ costs low by avoiding on-peak energy and/or demand use. We also address items as suggested by the Executive Secretary. It should be noted that Otter Tail has provided some results from our participation in the 2006 FERC Survey on Advanced Metering and Demand Response (FERC Forms 728).

III. ASSESSMENT OF CURRENT PRACTICES

Otter Tail will provide comments on the following as requested by the Executive Secretary, and some additional items added by Otter Tail.

- Otter Tail Load Management: The early days to the present
- Class(es) affected by time-of-day rates, rate structures, customer response and participation
- Metering technologies
- Communication technologies
- Billing system
- Cost recovery
- Demand Control
- Why time-of-day rates were established
- Otter Tail's Load Research Program (Non-tariff metering)
- How well are goals being met; and in general, how well the program is going.

Otter Tail Load Management History: The early days to the present. Otter Tail made the choice in the 1940's to request that customers allow us to install time clocks on water heaters in order to control demand during peak hours since our load was growing dramatically after the war. In the early 1980's we saw that controlling other heating loads would help to flatten our load curve, thus delaying the addition of new power plants and making better use of our existing power plants. Consequently, after 25+ years of options for customers to control their home and business energy costs, we have nearly 1/3 of our customers with some type of load control device on their home. (41,000 of 128,000 customers, system-wide)

In 2002 we made the decision to upgrade our load management system since our technology was 20+ years old and starting to cause concerns that all customers were consistently receiving the load management control signals. In addition, newer load management systems offered greater flexibility and management of controlled loads that our older system did not. This required new software to operate the system, system integration with our system operations center, training of company Service Reps and Linemen who installed receivers, new handheld test devices for installers, a trip to each premise to remove, install and then test radio receivers -- all of which was a major effort.

By the end of 2006 we will have replaced just over 80% of the radio receivers, with expected completion by mid-2007 of the load management radio receiver and system upgrade. This large demand-response investment (over \$7 million) allows our customers to continue to help Otter Tail control energy costs for all customers over the next 20 years.

Classes, rate structures, customer response and participation affected by time-of-day rates and other load management programs. The data shown in Appendix A are excerpts from Otter Tail's responses to the FERC 728 Survey using 2005 data. During the winter months, Otter Tail is able to control 8 to 12 percent of its peak demand.

Metering technologies. Otter Tail has three basic types of meters: energy meters, energy and peak demand meters, and energy and demand interval meters.

Otter Tail's typical meter is a residential 240 volt meter with five dials that are read and entered into a handheld PC once a month for energy use billing (136,000 meters of the total meter count of 170,000).

For the majority of commercial customers and a few residential customers our rates require that we install meters that display energy usage (kWh) along with peak energy demand (kW) for the month. These are also read once a month by service representatives or contract meter readers.

Otter Tail has a number of meters on commercial or industrial accounts where we have installed a meter with the capability to record energy for each 15-minute period during the month. Data is collected weekly using land-line or cell phones (approx. 75 phones or cell phones presently used on billing accounts). In some cases the load profile data is used to calculate the billing (RTP rate) and in all cases, to watch more closely these large accounts.

Otter Tail does not have large scale investment of metering technologies to support time-of-use rates when defined on its narrowest terms. Time-of-Use (TOU) Rates are based on the estimated cost of electricity during a particular time block. Time-of-use rates are usually divided into three or four time blocks per twenty-four hour period (on-peak, mid-peak, off-peak and, sometimes, super off-peak) and by seasons of the year (summer and winter).

Communications technology. Otter Tail utilizes the following communications technology to gather metering information; regular phone lines, cell phones and satellites. Otter Tail has also utilized the internet in a handful of locations in transmission substations with some success.

Billing system. Otter Tail Power Company currently manages a legacy customer information system that serves as the billing engine to produce customer electric bills. The system is over 25 years old. It is capable of managing most of the rates we currently offer. However, manual billing is required on a few rates that have hourly pricing or other complex rate structures.

Cost recovery. In general, tariffs cover the majority of costs associated with programs and pricing options. However, there are exceptions such as customer-owned or leased demand control devices used in our Residential and Commercial Demand Control programs, Power Profiler subscriptions, or in situations where a customer requires additional facilities that are either paid up front or handled with our Line Extension Policy. Residential Demand Control and Power Profiler are discussed later in greater detail.

Load management programs operating at present rely on radio receivers, tower/transmitters, computer control system, and computer billing systems. These costs are contained in the tariffs for the approved rates.

Costs of installation of the radio receivers, towers, transmitters, and computer systems, along with related operating and maintenance expenses, are part of the basis for our bundled electric rates. Utility load management systems generally benefit all ratepayers in managing overall energy price, reducing capacity costs, and maintaining system stability and integrity.

As indicated earlier, a new load management system to replace the aged original system has been installed in phases beginning in 2002. Installation will be complete in 2007. Again, these costs have been paid by customer revenue.

Below are two examples where customers pay for equipment or a monthly subscription fee.

Demand Control Devices: The Residential Demand Control (RDC) tariff is Otter Tail's version of a time-of-use rate in that it discourages energy use during on-peak periods when demand is high. Customers on the RDC rate predetermine the demand they can live with during control periods. A radio-controlled signal is sent to RDC customers during high demand/high price periods. If their household is using more than their predetermined demand rating, they can either actively reduce energy use by turning off additional appliances, or they can choose to pay a higher demand.

The demand control devices used by customers on the Residential Demand Control tariff are customer owned. The cost of an RDC unit is typically \$400 to \$700, depending on the model selected, plus installation wiring costs. Customers have added this advanced technology to their internal wiring systems and controls to closely manage electric use in a manner that puts them in control of the demand level they maintain, and consequently control their total electric bill.

This tariff has a unique benefit for households that use the most electricity including electric heating. It's also unique because RDC customers pay for the demand control equipment on their side of the meter but they also receive the benefit. Customers on average recoup their investment in less than five years.

Power Profiler: Otter Tail also provides, for a fee, the ability for the commercial or larger commercial customer with the proper metering to sign up for a special program named "Power Profiler." This internet based program allows the customer access to his energy usage for every 15 minute block of time, during each day of the month. This allows customers to make real-time energy-related changes in their operation that easily offset the cost of the monthly subscription. Power Profiler allows them to track energy usage based on the known flow through their manufacturing or operation. A fee is charged for this service since it requires metering beyond that needed for monthly billing for electric usage.

Why the time-of-day rates were established. Otter Tail proposes that we have a number of time-of-day rates that qualify as time-of-use. Those are included below.

Otter Tail's time-of-use rates were established by a combination of offerings proposed by Otter Tail and from Commission Orders. Below is a list of time-of-use tariffs and their respective dockets.

Large General Service Time of Use: E-017/M-90-512
General Service Time of Use Rider: E-017/M-80-178
Commercial Time of Use: E-017/M-84-287
Irrigation Service Option 2: Same as above
Fixed time of delivery (under and over 100 kW): E017/M-86-523
Real Time Pricing: E017/M-95-1044
Residential Demand Control: E-017/M-83-232

Otter Tail's Load Research Program (Non-tariff metering). Otter Tail is including a brief discussion on our Load Research program. Otter Tail believes this is an important part of the metering infrastructure that helps Otter Tail understand its customers for rate design.

Since 1991, Otter Tail has an on-going Load Research Program. The main purpose of Load Research is to produce statistically valid samples of various customer groups in order to better allocate costs and design rates.

Approximately 2,000 meters with recording ability have been installed on a random sample of premises for each rate grouping. This data is presently collected once each quarter using a handheld device. To keep up with new technology that is economical, we have budgeted and have on order new handheld devices which will allow service representatives and contract meter readers to collect data from these load survey accounts each month during normal meter reading routes.

Meters are also installed in our larger substations and a sample of smaller substations in order to collect 15-minute energy usage data to be used to determine loading on transformers, substations and the system. Daily data is collected using satellite modems and sent to our computer system early each morning for the previous day

How well are goals being met and in general, how is the program going. Otter Tail believes its current demand-side management portfolio is operating as designed. We offer the following in support:

- The primary goal of the load management program at Otter Tail is to delay construction of new generating resources to meet customer loads and improve our system load factor, while managing the price customers pay for electricity.
- Otter Tail has not filed for a formal increase to base rates in Minnesota since 1986. Part of the reason for that has been successful integration and ongoing management of our DSM resources.

- Otter Tail’s customers enjoy some of the lowest rates in the nation. In fact from 1985 to 2005, Otter Tail Power Company customers saw an average increase of approximately 5 percent on their electric bills. This while national averages for electricity increased 27%¹.
- Otter Tail has participated in a number of Demand Side Management surveys. In a 2005 study², Otter Tail was in the top tier of utilities with DSM resources.
- Successful integration of more than 40,000 load management customers has had the effect of flattening Otter Tail’s 24-hour system load shape during periods of control. Peak clipping (dual fuel, water heating control, residential demand control, etc), load shifting (storage heating, demand control, irrigation, air conditioning control), strategic conservation (weatherization, efficient technologies) and flexible loads (standby generation, interruptible) all work in harmony to minimize the impacts of high energy cost and constrained capacity situations. The controlled service rates in our portfolio provide customers lower-priced options in exchange for lifestyle changes or investment on their part. Careful design and integration of new rates and programs will continue to ensure that we maintain our relatively flat, controlled system load shape.

Future: Otter Tail anticipates a change to our winter peaking status in or around 2014. Unmanaged winter peaks will still be higher than unmanaged summer peaks, but the greater winter season control capability may result in controlled winter peaks becoming lower than the controlled summer peaks. This has created additional emphasis on summer control rates and careful integration of new winter controlled service rates.

IV. COMMENTS ON FUTURE PROPOSALS

Otter Tail will provide the following comments on:

- Goals to be accomplished
- Customer class or classes affected
- Automated Meter Infrastructure
- How costs are proposed to be recovered
- Suggested programs

Goals to be accomplished. Otter Tail believes the main goal of smart metering is to send price signals to the customer in order for the utility to reduce costs and pass on the savings to the customer. This must be coupled with the use of proven and cost-effective technology.

¹ Edison Electric Institute. “EEI: Straight answers about rising electricity prices”, July 2006.

² Summit Blue Consulting, INTERNATIONAL ENERGY AGENCY DEMAND SIDE MANAGEMENT PROGRAMME TASK XIII: DEMAND RESPONSE RESOURCES, North American Utility Demand Response Survey Results, 2005.

Customer class or classes affected. Otter Tail has time-of use tariffs in place for the commercial and large commercial classes. Otter Tail already offers residential customers a form of time-of-use tariff, Residential Demand Control, as described earlier in our comments.

By adopting the Smart Metering Standard, Otter Tail and other utilities would be mandated to develop a traditional time-of-use program for their residential customers. Although Otter Tail has been monitoring other residential time-of-use programs, none that we are aware of have long-term successes. Several of those programs have failed because price differentials have not been extreme enough to warrant modified lifestyle.

We would offer instead that our Residential Demand Control program provides pricing based on time of use. With Otter Tail's existing Residential Demand Control tariff, customers willing to modify their lifestyle in favor of lower price are put in control of their energy use and curtailment during peak periods. Those opting not to modify lifestyle during peaks pay a higher incremental price. Energy management choices and price paid move in concert with each other. The RDC tool supports the customer in his/her effort to manage energy use.

The Commission will recall that from November 2002- June 2003, Xcel Energy and the Minnesota Commission investigated the potential for mandatory residential time-of-use³. The Order declined to proceed with the Xcel Residential TOU Pilot. Rather than Otter Tail supplying the information related to this docket, Otter Tail is hopeful that Xcel will provide their first-hand experience in mandatory Residential Time of Use proposals.

Not all utilities have the AMI (Automated Meter Infrastructure) and back office infrastructure like Xcel. To mandate these types of systems on smaller utilities would be very costly as investment in metering must be married to investment in billing systems able to process and bill for the new rates. Otter Tail finds the outcome of the Xcel Residential TOU Pilot as well as other time of use programs very interesting. On top of costs associated with their types of time-of-use program Otter Tail's customers would incur significant costs associated with upgraded metering and billing.

Automated Meter Infrastructure (AMI). Otter Tail is aware of new technology and options that vendors have brought to the table. There have been vast improvements in the communications methods to meters, allowing two-way communications at a lower price than ever before. However, the economics must be justified for our customers.

Another important aspect of AMI is that it must be able to communicate with the company's billing system. Otter Tail has a legacy billing system that, while over 20 years old, performs well enough for the metering and other technologies that we utilize.

In the future, AMI may be possible for Otter Tail. But the decision should be made on a case-by-case basis by the utility and/or regulators, after close study of cost effectiveness, and rigorous study of other alternatives such as our current RDC program or other

³ Order Opening Investigation, Docket E-002/CI-01-1024 and Docket No. E-002/M-02-1894.

programs intended to drive real-time connections to energy use such as prepaid metering. Furthermore, with developments occurring rapidly in the locational marginal pricing markets, we remain unclear how those developments might impact utility demand and price response programs.

V. CONCLUSIONS

Minnesota enjoys one of the most advanced energy efficiency and demand response markets in the nation. Our programs, services, and rates that have been designed jointly by utilities and regulators are the envy of the nation. A rush to judgment by other states due to the buzz created by the Energy Policy Act does not mean that Minnesota is in a similar position. In many respects, we enjoy a “been there, done that” environment created by engaged customers, creative development by the utilities, and a supportive regulatory environment.

A discussion of all these alternatives and developments should occur before a rush by other states causes unnecessary costs to be incurred by customers in Minnesota.

Load management at Otter Tail dates back to the 1940’s when time clocks were installed to control water heaters. And Otter Tail is still providing innovative rates and load management programs that meet the needs of our customers and the region. Otter Tail continues to add new meter technology and related infrastructure whenever it becomes economic for both our customers and the company.

Otter Tail urges the Commission to continue its stewardship of our unique position in the national energy arena and not rush to adopt the Smart Metering Standard. The reasons not to adopt the standard are clear – Commissions, utilities and their customers need flexibility, not a one size-fits-all approach. These types of standard can tie our hands and force uneconomic decisions. These decisions are better made at the utility and state level.

November 1, 2006

Respectfully submitted:

Otter Tail Corporation d/b/a
Otter Tail Power Company

By: _____
David G Prazak
Supervisor, Pricing
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56538-0496

Appendix A

Otter Tail Power - Load Management Results for Residential 2005 FERC Form 728						
Name of Program or Tariff	Direct Load Control- Water Heating	Small Dual Fuel	Thermal Storage	Residential Demand Control	Direct load Control -Air Conditioning	Total Winter
Voluntary or Mandatory Enrollment	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	
Number of Enrolled Customers	10,453.0	4,475.0	900.0	2,538.0	359.0	18,725.0
Maximum Demand of Enrolled Customers (MW)	9.4	13.9	4.4	17.8	1.1	
Potential Peak Reduction (MW)	9.4	13.9	4.4	7.6	0.1	35.3
Actual Peak Reduction in 2005 (MW)	9.4	13.9	4.4	7.6	0.1	35.3
Potential MWh Change Due to Program/Tariff	7,528.0	11,096.0	4,410.0	1,903.5	42.0	
Actual Annual MWh Change Attributed to Program/Tariff in 2005	4,705.0	6,935.0	3,308.0	1,142.0	25.0	16,115.0

Appendix A

Otter Tail Power - Load Management Results for Commercial 2005 FERC Form 728						
Name of Program or Tariff	Large Dual Fuel	Direct Load Control- Water Heating	Thermal Storage	Commercial Time of Use	Irrigation	Total Winter
Voluntary or Mandatory Enrollment	Voluntary	Voluntary	Voluntary	Voluntary	Voluntary	
Number of Enrolled Customers	140.0	52.0	31.0	42.0	111.0	376
Maximum Demand of Enrolled Customers (MW)	8.4	0.2	3.1	2.1	5.6	
Potential Peak Reduction (MW)	8.4	0.2	0.3	0.4	1.1	9
Actual Peak Reduction in 2005 (MW)	8.4	0.2	0.3	0.4	1.1	9
Potential MWh Change Due to Program/Tariff	9,240.0	176.0	-	176.4	444.0	
Actual Annual MWh Change Attributed to Program/Tariff in 2005	7,728.0	147.0	-	176.0	300.0	8,351

Appendix A

Otter Tail Power - Load Management Results for Lg. Commercial 2005 FERC Form 728						
Name of Program or Tariff	Real Time Pricing	Large General Service-Time of Use	Large General Service-Rider	Released Energy Access Program (REAP)		Total Winter
Voluntary or Mandatory Enrollment	Voluntary	Voluntary	Voluntary	Voluntary		
Number of Enrolled Customers	1.0	10.0	7.0	3.0		
Maximum Demand of Enrolled Customers (MW)	5.4	50.0	40.0	16.0		
Potential Peak Reduction (MW)	1.0	5.0	40.0	1.0		47.0
Actual Peak Reduction in 2005 (MW)	0.5	3.0	15.0	-		18.5
Potential MWh Change Due to Program/Tariff	-	-	-	-		
Actual Annual MWh Change Attributed to Program/Tariff in 2005	-	-	-	-		-

Appendix C:

Handout from Otter Tail at the
North Dakota EPACT Workshop
October 23, 2006

Otter Tail Power Company

Handout for Discussion re: Interconnection – Section 1254

Bernadeen Brutlag, JoAnn Thompson, Dave Prazak

Bismarck State Capitol
Monday October 23, 2006
10 a.m. CDT
Pioneer Room

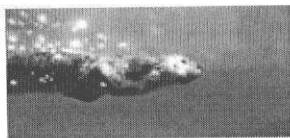
Otter Tail's Assignment

Interconnection – Section 1254: Lead Utility: Otter Tail

- Please describe the interconnection process your utility follows and compare it with the NARUC model (NARUC PURPA Manual, page 94) and the FERC small generator interconnection rules.
- Have interconnection requirements been a reason for customers not choosing to interconnect?

Otter Tail's Agenda

1. Describe Otter Tail's interconnection process for both Transmission and Distribution
2. Comparison of Otter Tail's interconnection process with NARUC and FERC model
3. Discuss - "Have interconnection requirements been a reason for customers not choosing to interconnect?"

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Generator interconnection

Overview

Anyone planning to interconnect a generator to Otter Tail Power Company's electric system is required to follow specific processes and procedures. These processes and procedures vary with the size of the project and the voltage that you intend to interconnect. This [flow chart \(pdf\)](#) should help to determine the process that best fits your generator interconnection project. Throughout the interconnection process, an Otter Tail Power Company representative will work with you to ensure that the process goes as smoothly as possible.

Which process should you follow?

The following descriptions will help you determine which process best suits your project. Because no two projects are identical, there may be slight variations to the processes and procedures identified below. Please note that additional variations might apply based on how the output will be used (i.e., self-supply, sale to Otter Tail Power Company, or sale to other).

Interconnection processes:

1. If you interconnect to Otter Tail Power Company's **high-voltage transmission system** (100 kv and above) you must submit a request to the Midwest Independent Transmission System Operator, Inc. (Midwest ISO or MISO) and must follow the [Midwest ISO's generator interconnection procedures](#).
2. If you interconnect to Otter Tail Power Company's **subtransmission system** (41.6 kv– 100 kv), and you intend to sell the output, you must submit a request to the Midwest ISO and must follow the [Midwest ISO's generator interconnection procedures](#).
3. If you interconnect to Otter Tail Power Company's **distribution system** (less than 41.6 kv), and the project is greater than 10 MW, you must submit a request to Otter Tail Power Company and must follow [Otter Tail Power Company's interconnection procedures](#). If, via the power flow studies, the project is identified as impacting the transmission system, Otter Tail Power Company will notify you. You then will be required to submit a request to the Midwest ISO and must follow the [Midwest ISO's generator interconnection procedures](#).
4. If you interconnect to Otter Tail Power Company's **distribution system** (less than 41.6 kv), and the project is 10 MW or less and meets the State of Minnesota special fuel requirements, you must follow the processes and procedures for [interconnection for distribution generators](#). **Please note**, however, that if the project's nameplate capacity is greater than the minimum expected load on the distribution substation you should comply with Process 3, above.

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5. If you interconnect at less than 100 kv and for self-supply with no intents for resale, you may initiate your request with Otter Tail Power Company.

In addition to the procedures noted above, an interconnection customer will be required to abide by Otter Tail Power Company's technical guidelines provided in the technical handbook. The [technical handbook](#) outlines the technical requirements when interconnecting a generator, tie-line, or substation to Otter Tail Power Company's electric system.

Questions? Email the [generation interconnection coordinator](#) at Otter Tail Power Company.

Related pages

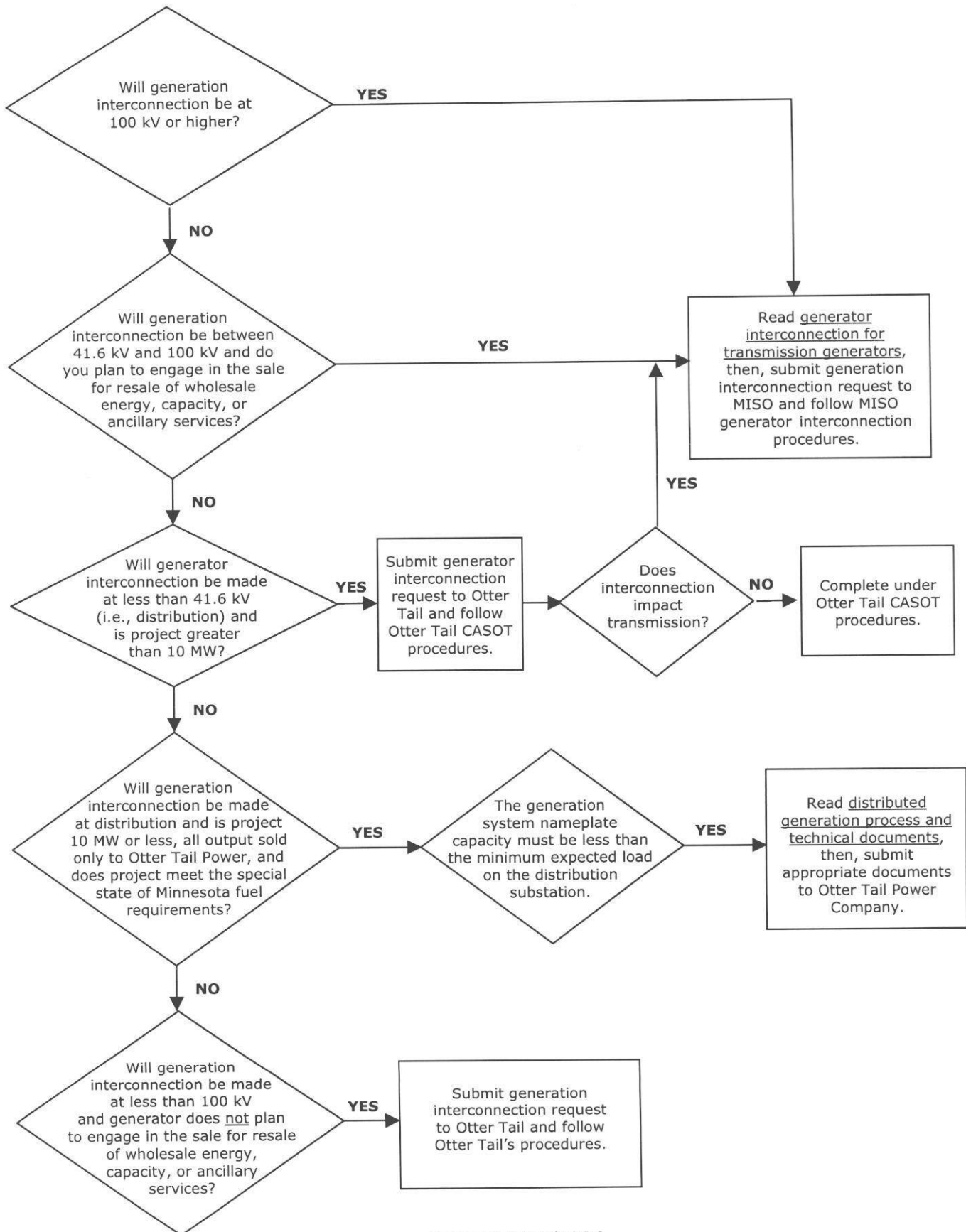
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Interconnection process flow chart - Otter Tail Power Company



Revised 4/19/2006

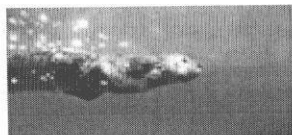
Small Generator Interconnection Procedure (SGIP) Overview - Study Process

No.	Procedure Stage	Required Submission	Notes
1	Application	<ul style="list-style-type: none"> ▶ Deposit ▶ Complete application form (Attachment 2). 	To avoid losing queue position, please make sure all requested technical data are provided using specified forms.
2	Feasibility Study	<ul style="list-style-type: none"> ▶ Technical data ▶ Executed study agreement (Attachment 6). ▶ Study deposit. 	This study will identify potential adverse system impacts resulting from the interconnection and include, but not limited to a short circuit, thermal, and voltage analysis.
3	System Impact Study	<ul style="list-style-type: none"> ▶ Technical data ▶ Executed study agreement (Attachment 7). ▶ Study deposit. 	This study will include, but not limited to, a power flow, short circuit, voltage, stability, and system protection analysis. Study results will include a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in the analysis and implementation of the interconnection.
4	Facility Study	<ul style="list-style-type: none"> ▶ Executed study agreement (Attachment 8). ▶ Required technical data, if any. ▶ Study deposit. 	This study will specify and estimate the cost and time schedule for the modifications needed to implement the conclusions from the system impact study.
5	Interconnection Agreement	<ul style="list-style-type: none"> ▶ Executed or unexecuted agreement. 	

The above SGIP:

- 1) Applies to generators proposing to interconnect to transmission system facilities defined as transmission and does not include connections to distribution facilities
- 2) Interconnection requests made under this process will only enable energy resource status (ER). Any generator requesting network resource status is requested to follow the large generator interconnection request procedures.

Source: <http://www.midwestmarket.org/page/Small%20Generator#overview>

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Interconnection for distribution generators

On August 1, 2001, [Minnesota Statute § 216B.1611](#) became effective. The statute directed the Minnesota Public Utilities Commission (MPUC) to establish standards under which an electric utility would interconnect with a customer's plant that uses certain "clean" fuels to generate up to ten megawatts of power for use on-site by the customer, with any unused electricity sold to the utility. The statute refers to such plants as "distributed generation" (DG).

On September 28, 2004, the MPUC issued its order directing retail electric public utilities to file tariffs consistent with the new standards.

On December 27, 2004, Otter Tail Power Company proposed terms under which it would interconnect with and support the operations of a DG customer.

On March 21, 2006 the MPUC issued its order approving a revised and clarified version of Otter Tail Power Company's DG proposal and directing Otter Tail Power Company to post the process and technical documents on this web site.

Process and technical documents

- [Overview of the interconnection process - Distributed generation interconnection process flow chart \(pdf\)](#)
- [Application process \(pdf\)](#)
- [Interconnection requirements \(pdf\)](#)
- [Application for interconnection \(pdf\)](#)
- [Engineering data submittal \(pdf\)](#)
- [Interconnection agreement \(pdf\)](#)
- [Distributed generation service rider \(pdf\)](#)
- [Standby service tariff \(pdf\)](#)

In addition to the procedures noted above, an interconnection customer will be required to abide by Otter Tail Power Company's technical guidelines provided in the technical handbook. The [technical handbook](#) outlines the technical requirements when interconnecting a generator, tie-line, or substation to Otter Tail Power Company's electric system.

Questions? [Email the generation interconnection coordinator at Otter Tail Power Company.](#)

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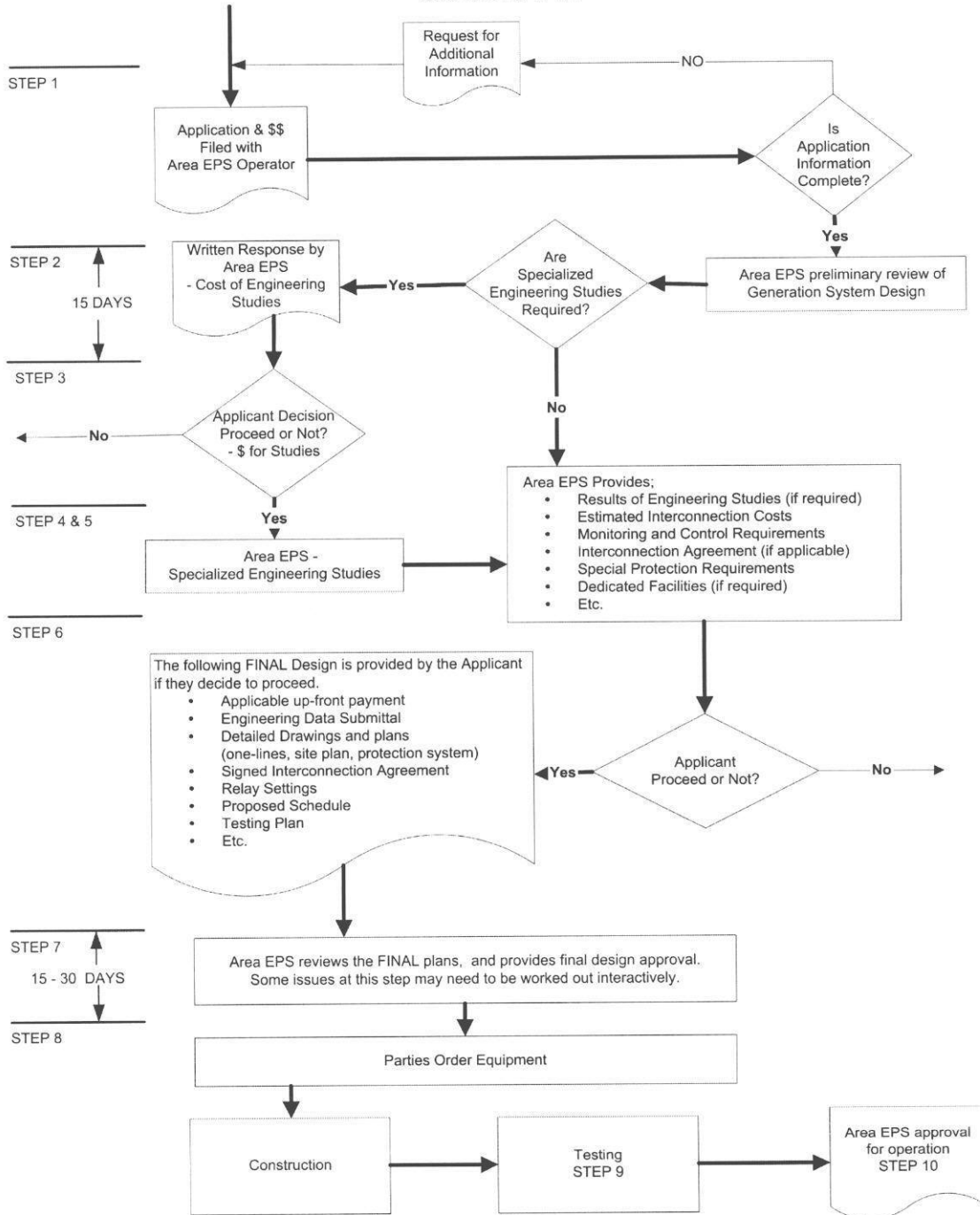
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APPENDIX A

DISTRIBUTED GENERATION INTERCONNECTION PROCESS SUMMARY



7.3.1. Application process

The application process is different for each the standards. NRECA, NARUC, and FERC all propose slightly different standards, but the procedures for receiving approval for interconnection are roughly the same for all standards. Figure 7.1 is taken from NRECA's "Business and Contract Guide for Distributed Generation (DG) Interconnection (p5)."⁶⁷ This document provides an overview of the process for NRECA.

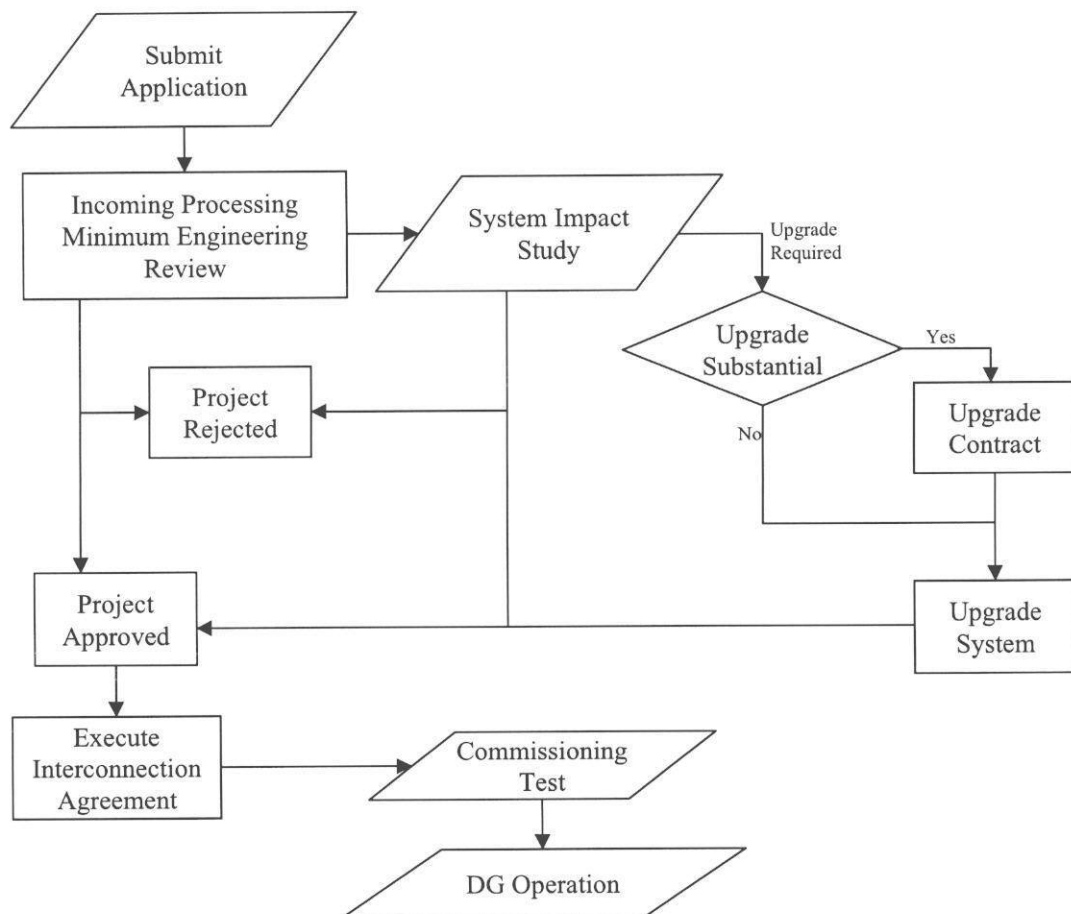


Figure 7.1. The NRECA application process for DG.

⁶⁷ Available at <http://nreca.org/PublicPolicy/dgtoolkit.htm>

ENERGY POLICY ACT OF 2005 CONFERENCE REPORT

[TO ACCOMPANY H.R. 6]

JULY 27, 2005.—Ordered to be printed

SEC. 1254. INTERCONNECTION.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621 (d)) is amended by adding at the end the following:

“(15) INTERCONNECTION.—Each electric utility shall make available, upon request, interconnection service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term ‘interconnection service’ means service to an electric consumer under which an on-site generating facility on the consumer’s premises shall be connected to the local distribution facilities. Interconnection services shall be offered based upon the standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, as they may be amended from time to time. In addition, agreements and procedures shall be established whereby the services are offered shall promote current best practices of interconnection for distributed generation, including but not limited to practices stipulated in model codes adopted by associations of state regulatory agencies. All such agreements and procedures shall be just and reasonable, and not unduly discriminatory or preferential.”.

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

“(5)(A) Not later than one year after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (15) of section 111(d).

“(B) Not later than two years after the date of the enactment of the this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraph (15) of section 111(d).”.

(2) FAILURE TO COMPLY.—Section 112(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622 (c)) is amended by adding at the end the following: “In the case of the standard established by paragraph (15), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of paragraph (15).”.

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

“(f) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standard established by paragraph (15) of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

“(1) the State has implemented for such utility the standard concerned (or a comparable standard);

“(2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility; or

“(3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility.”.

(B) CROSS REFERENCE.—Section 124 of such Act (16 U.S.C. 2634) is amended by adding the following at the end thereof: “In the case of each standard established by paragraph (15) of section 111(d), the reference contained in this subsection to the date of enactment of the Act shall be deemed to be a reference to the date of enactment of paragraph (15).”.