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June 19, 2009

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
Capitol Building, 1st floor
500 East Capitol Avenue
Pierre SD 57501-5070

RE: In the Matter of the Consideration of the New PURPA Standards
Otter Tail Corporation d/b/a Otter Tail Power Company Direct Testimony
Docket No. EL08-028

Dear Ms. Van Gerpen:

Otter Tail Corporation d/b/a Otter Tail Power Company ("Otter Tail" or "the Company") is pleased to provide direct testimony in this docket.

Otter Tail understands the direct testimony will be used at a hearing scheduled later this year in which the Commission may determine whether to implement the following four new federal standards to PURPA: (1) Integrated Resource Planning, (2) Rate Design Modification to Promote Energy Efficiency Investments, (3) Consideration of Smart Grid Investments, and (4) Smart Grid Information.

Otter Tail appreciates the South Dakota Commission Staff's preliminary list of questions as provided in their April 29, 2009 memo. Otter Tail's attached direct testimony is not all inclusive, but attempts to address the major themes of the docket. Otter Tail plans to be engaged in this docket, as directed in the Commission's procedural schedule per the March 9, 2009 Order.

If you have any questions, regarding this filing, please contact me at 218 739-8595 or DPrazak@otpco.com.

Sincerely,

/s/ DAVID G. PRAZAK
David G. Prazak
Supervisor Pricing

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Enclosures
By electronic filing

In the Matter of the Consideration of the New PURPA Standards
Docket No. EL08-028

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

I. Introduction

Otter Tail's direct testimony is organized into four sections. Three of them relate to the new federal standards to PURPA, as follows: (1) Integrated Resource Planning, (2) Rate Design Modification to Promote Energy Efficiency Investments, (3) Consideration of Smart Grid Investments/Smart Grid Information. The last section provides concluding remarks.

In the first section, Otter Tail provides responses to the Staff's questions posed in its April 29, 2009 memo. The remaining sections address some of the Staff's questions but in an indirect or thematic manner. Finally, a brief conclusion summarizes our commitment to participating in this docket.

II. Integrated Resource Planning

1. Are you currently required to go through an IRP process in any of your regulated jurisdictions?

Yes.

If yes:

a. Which jurisdiction(s)?
Otter Tail Power Company currently files its resource plan with the Minnesota Public Utilities Commission. This plan is a system-wide plan and covers its customers in Minnesota, North Dakota, and South Dakota. The Company also sends a copy of its IRP to the South Dakota Public Utilities Commission and the North Dakota Public Service Commission.

b. How long has this been required?
The order requiring the filing of IRPs in Minnesota was issued on December 12, 1990. Otter Tail's first IRP was submitted in 1992.

c. Explain the input process.
The company uses the Strategist ™ model to develop its resource plan. Five modules are used to supply the data for the plan: Load, Generation, Capital Project, Financial Reporting and Expansion Planning Modules.

The input assumptions to the various modules are based on the Company's estimate of future conditions. Since assumptions are inherently uncertain, the Company makes

modeling runs using an array of combinations of assumptions to attempt to cover a wide range of possible scenarios. Several of the most important drivers of the model are energy and fuel price forecasts, load forecasts, capital costs of generation resource options, and more recently, the impact of CO_2 regulation.

The preferred plan results in the least-cost net present value of revenue requirements for our customers.

d. How often is the plan revised/reviewed?
While the rules in Minnesota require the plan to be filed every two years, it typically is longer between IRP filings. The process of reviewing the IRP and gaining regulatory approval is quite lengthy and can sometimes use the entire two years. For instance, the IRP that Otter Tail filed in 2005 was just approved earlier this year, taking over 3½ years and requiring several interim updates.

e. Historically, have you followed the resulting plans?
Yes. If significant changes to the plan are required, the Company will seek Commission approval.

f. Explain how energy efficiency resources have been integrated into the plan?
The Company includes cost effective energy efficiency into its resource plan. Also, already existing programs and state mandates and objectives are considered when including energy efficiency resources.

g. Please provide an analysis of the costs and benefits associated with the current process.
While the Company would go through the resource planning process in order to effectively plan for the future, the regulatory process involved with an integrated resource plan filing is costly and burdensome. It is much like a rate case proceeding including data requests, testimony, rebuttal, and multiple hearings. As you can see in the response to 1.d above, it took over three years to complete one planning cycle.

The benefits would include making the Commission aware of our future plans to meet our generation needs. An approved resource plan gives the Company an indication that included resource alternatives are looked at favorably.

2. Were you previously required to go through an IRP process in another jurisdiction that no longer requires it?

No.

3. Should the commission adopt an IRP process?
No. Otter Tail Power Company believes the current practice of supplying each of our Minnesota Integrated Resource Plan filings to the South Dakota Public Utilities Commission provides enough information to monitor the Company's future plans. Otter Tail would be

willing to work with the Commission to develop some level of customization of information specific to South Dakota only.

4. If the commission adopted an IRP process in South Dakota:

a. How should energy efficiency resources be integrated?
Cost-effective energy efficiency is part of the least-cost planning process and should be utilized as long it is cost-effective.

b. How often should the plan be revised/reviewed?
It would be most efficient for Otter Tail if the plan requirements were the same as Minnesota so that plans could be developed simultaneously to cover both state requirements. If that were the case, the time period should be no shorter than two years, but may be somewhat longer.

c. How would this benefit you?
The Company does not see any benefit to an added filing requirement in South Dakota. Otter Tail Power Company already completes an integrated resource plan for our entire system which is supplied to the South Dakota Public Utilities Commission. However, comments and questions from the Commission and/or Staff aimed at improving our process are welcome.

d. How would you be negatively affected?
The additional regulatory cost of filing another IRP is an unnecessary cost to be borne by customers.

III. Rate Design Modification to Promote Energy Efficiency Investments

Otter Tail's response in this section begins by discussing two recent activities of Otter Tail Power related to rate design modifications (OTP's South Dakota General Rate Case, EL08-030, pending approval) and OTP's promotion of energy efficiency investments (EL07-011, approved July 2008) via South Dakota's Energy Efficiency Partnership ("EEP"). Also addressed are some of the general themes as outlined in the questions prepared by the South Dakota Staff.

In terms of rate design, Otter Tail proposed, in its 2008 pending rate case filing, a number of changes including reducing the number of declining block rates and introducing more seasonal rates, including time of day rates. These changes in Otter Tail's rate design, based on marginal costs, reflect some the intentions from the 1978 Federal PURPA Standards and the Energy Policy Acts of 1992 and 2005 as noted in the EISA Standards Manual[1]. Otter Tail believes these proposed rate design modifications provide an improved posture to promote energy efficiency investments.

[1] See Rose, M. & Murphy M. (2008). Reference Manual and Procedures for Implementation of the "PURPA Standards" in the Energy Independence and Security Act of 2007, pp. 1-4.

Another step toward the promotion of energy efficient investments is the approval of Otter Tail's South Dakota Energy Efficiency Partnership ("EEP") Plan. The South Dakota Public Utilities Commission ("PUC") encouraged all investor-owned electric and natural gas utilities to be a part of EEP. Otter Tail was the first electric utility to obtain PUC approval. According to the Commission Order[2], Otter Tail's Plan "consists of seven individual programs, including programs for all rate classes and major end-uses showing the greatest potential for energy savings." Most importantly, the plan is cost-effective.

The programs were launched on September 1, 2008 and the program cost recovery commenced on October 1, 2008. The programs were developed based on over 20 years of experience in Otter Tail's Minnesota energy efficiency plan. A good sign is that our South Dakota customers have been receptive to these programs. And because of this customer response, we anticipate asking for an extension to the existing plan and modifications to limitations of the plan.

The Commission Staff listed a number of questions related to rate design, energy efficiency investments, and policy options. In general, the questions appear to ask – what is the best approach to obtain the promotion of energy efficiency and investments? The potential approaches include options for program design, program delivery, program administration, incentive mechanisms, and education programs. Otter Tail supports investigating these and other issues from our own experiences, the experiences of those serving the rate payers of South Dakota, and elsewhere.

Otter Tail and other investor-owned utilities have access to a variety of sources to help investigate the previously mentioned issues. In addition to NARUC and "energy efficiency" conference materials, Otter Tail accessed a few resources from the Edison Electric Institute (EEI), which among other things, is public policy advocate for shareholder-owned electric utilities. Below is a summary of a four resources for consideration (graphics are provided in the appendix).

- "Current Developments in DSM[3]": Dr. John Chamberlain, from The Cadmus Group, presented to EEI's Legal Committee in February, 2009. He outlines recent growth in DSM activities and financial impacts of DSM. See Appendix 1 for two slides describing how states are treating DSM cost recovery and the types of recovery mechanisms as well as two other slides describing the status of decoupling in the U.S. and which states have performance incentives.

- "Introduction to Alternative Regulation[4]": Dr. Mark Lowry of Pacific Economics Group Research, LLC, presented to EEI's Rate College E Forum Series in April, 2009. He outlines recent Alternative Regulation ("Altreg") plan design (e.g., Performanced-Based Rate Making, Rate Caps, and Decoupling), identifies key precedents, and emphasizes recent developments. He also discussed the types of decoupling approaches, including the pros and cons. See Appendix 2 for two slides describing these decoupling approaches.

[2] Docket No. EL07-011, approved July 28, 2008.
[3] (Membership required) www.EEI.org
[4] Ibid.

- "A Good Framework is the First Step[5]": Dr. Lisa V. Wood, executive director of the Institute for Electric Efficiency, provides a synopsis of a three-year decoupling pilot at Idaho Power, where rates are adjusted independent of energy sales. She outlines the lessons learned 1) Mechanisms must be flexible, 2) a decoupled regulatory structure must have safeguards for the stakeholders, and 3) programs must respond to market conditions. See Appendix C for a copy of the article.

- Minnesota has a statute on decoupling[6]. Otter Tail is not aware of any pending decoupling proposals in Minnesota.

The Staff asks for input (question 8) in regard to the policy options as found in the EISA Standards Manual[7]. Otter Tail appreciates this question from the Staff, but would like to seek clarification. Otter Tail understands this question as providing input in items (i) through (vi) to the "regulatory authority and each nonregulated[8] authority." Otter Tail seeks clarification because it is unclear how the South Dakota Commission would be able to enforce policy options to nonregulated utilities. Upon clarification, Otter Tail will consider its response.

In a nutshell, here are some concluding thoughts on Energy Efficiency, and Alternative Regulation.

- Decoupling can be an option for utilities that choose it for reasons that may include financial stability, but it should not be mandated.

- Evidence supports decoupling alone will not drive greater investment in energy efficiency. Rather well designed financial incentives are more likely to drive utility resource decisions[9].

- Otter Tail has experience in Performance-Based Ratemaking (PBR) Plans[10].

- Energy efficiency should be part of a balanced resource portfolio, and included as part of least cost planning.

- Cost recovery and financial incentives are integral parts of an energy efficiency plan.

- Utilities are in the best position to work with their customers on energy efficiency. Customers look to their local utility for energy advice and energy management solutions.

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[5] http://www.edisonfoundation.net/iee/issueBriefs/EE_at_Work_Elec_Persp_Mar09.pdf
[6] https://www.revisor.leg.state.mn.us/statutes/?id=216B.2412
[7] Rose, M. & Murphy M. (2008). Reference Manual and Procedures for Implementation of the "PURPA Standards" in the Energy Independence and Security Act of 2007, p. 5
[8] Ibid, p.2. PURPA defines a "nonregulated electric utility" as "any electric utility other than a state regulated electric utility."
[9] Kushler, York, & Witte (March 2009). Meeting Aggressive New State goals for Utility-Sector Energy Efficiency: Examining Key Factors Associated with High Savings
[10] The North Dakota PBR plan covered 2001-2005, Case No. PU-401-00-36.

IV. Consideration of Smart Grid Investments & Smart Grid Information

Otter Tail's response in this section provides some thoughts on the following points; what is a Smart Grid, its functions, Otter Tail's existing Smart Grid Elements, difficulties and uncertainties in Smart Grid investments, and concluding thoughts.

What a Smart Grid does – purposes, benefits, and functions

The purposes and benefits of a Smart Grid are directly related to its functions and its societal cost effectiveness. In effect, the Smart Grid should optimize grid operations from generators to the customer in the form of balancing supply and demand as well as the connections in between.

David K. Owens, Executive Vice President of EEI, in his presentation[11] to EEI's Supplier Diversity Annual Conference in May 2008, listed the seven functions of a Smart Grid[12], as shown below;

- Enable consumers to respond to price signals – smart thermostats
- Integrate renewables, battery storage, thermal storage
- Enable new products, services – efficiency management
- Power quality for the digital economy
- Optimize utility assets and operate efficiently
- Self-healing grid
- Physical and cyber security

Otter Tail's "Smart Grid" Elements

Otter Tail has employed Smart Grid elements – some that go back to the 1940's in the form of time clocks on certain customer loads, to the expansion of our load management system, to an automated interruption monitoring system (IMS) for reliability and operational decisions, to fault locating protective relays on the transmission system, to also include communications systems linked to the Midwest Independent System Operator (MISO). All of these systems have been employed to improve services and information needed by the utility, customers and regulators. The key to these investments is providing cost effective benefits to all stakeholders.

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[11] See Owens presentation "Electricity: The Next 25 Years" at http://eei.org/meetings/nonav_2008-05-20-dm/ElectricityTwentyFiveYears.pdf

[12] Mr. Joe Miller of NETL12 presentation at the FERC – NARUC Smart Grid Collaborative Meeting in July, 2008 corroborates with Mr. Owens seven functions as contain in the text.

In EEI's monthly magazine, Electric Perspectives, in a Smart Grid article titled "Getting Smart"[13], the authors describe three types of utility approaches to investing in the Smart Grid. These approaches are 1) early adopters, 2) a fast follower, or 3) a wait and see player looking for tangible proof of performance. Over the years, Otter Tail has utilized each of the approaches in different areas of the company.

When considering any investment, one approach is to understand the purpose of the investment and what it can do to make things better. Also, it must be cost effective as compared to existing systems and processes.

Otter Tail is investigating Smart Grid investments that affect Demand Response, Meter Reading, Reliability, Grid, and Workforce Automation. One example of a Smart Grid technology is known as "SynchroPhasors." This technology monitors certain locations of the power system for potential instability (voltage or dynamic). On the other hand, Otter Tail has not made certain Smart Grid investments for a number of reasons, including uncertainty of newer Smart Grid systems, business risk, recovery of recent investments (e.g. load management systems), and the overall potential cost impact to customers.

The difficulty for Otter Tail regarding the Smart Grid is the uncertainty with the wide range of potential installation costs and benefits, especially due to the size and expansiveness of our service territories in Minnesota, North and South Dakota. The approaches toward investments in Smart Grid range from smaller incremental investments to fully capable Smart Grid/AMI systems. Incremental approaches are more manageable, yet may not produce the magnitude of benefits from a fully capable system. On the other hand, fully capable systems are very costly and compete with other major capital investments being made by Otter Tail. Bottom line – prudent investments are extremely important to Otter Tail and its customers. If the investment is not cost effective, it is not done and is set aside for future considerations.

In a nutshell, here are some concluding items on Smart Grid

- Smart Grid investments can benefit utilities and customers through operational and business improvements.
- Benefits of smart grid implementation could include outage management, meter reading, revenue protection, grid planning, demand response, better management of distribution assets, distribution automation, remote on/off, and future developments.
- Otter Tail looks forward to lessons learned from Xcel's SmartGridCity™ and others.
- Implementation of Smart Grid typically also requires an investment in customer information systems.

[13] http://www.eei.org/magazine/EEI%20Electric%20Perspectives%20Article%20Listing/2007-09-01-Smart.pdf

- Cost recovery is critical.

- Regulators should not mandate investments in smart grid.

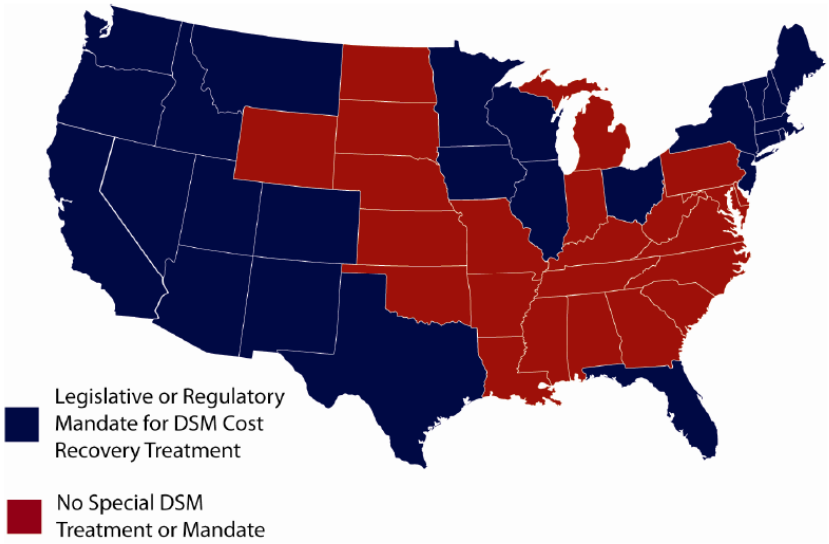
V. Conclusions

Otter Tail supports reasonable, cost-effective investments that produce net societal benefits. During our 100 years in business, we have embraced changes in society and in our business to remain as one of the lowest cost providers of electricity and related services to our customers.

Energy is an important part of our lives and will continue to be. Otter Tail takes federal and state initiatives seriously as they can be opportunities to advance societal benefit. We want our customers to have access to more information about how to better utilize electricity and secure benefits from wise energy use. We continue to seek flexible and reasonable legislation that produces meaningful benefits to our customers.

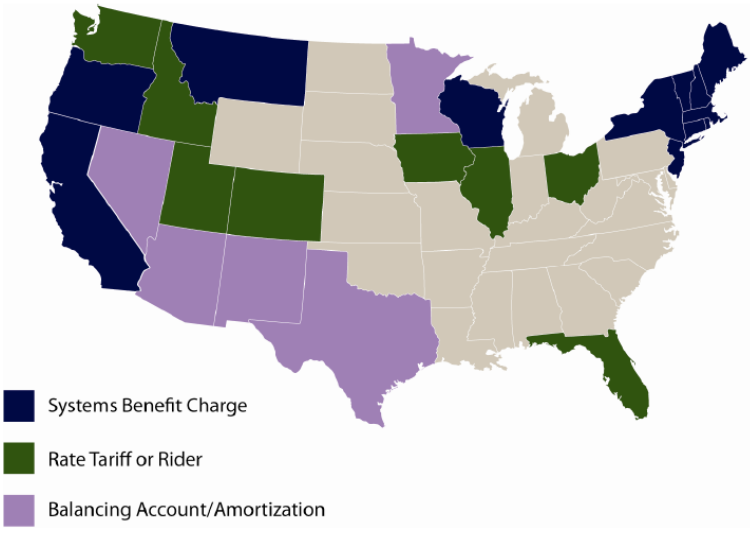
Otter Tail appreciates the opportunity to provide testimony in the docket. We look forward to future participation in order to continue discussions on the most appropriate methods to advance useful and cost effective measures regarding the issues in this docket.

What are most utilities doing now?



THE CADMUS GROUP, INC.

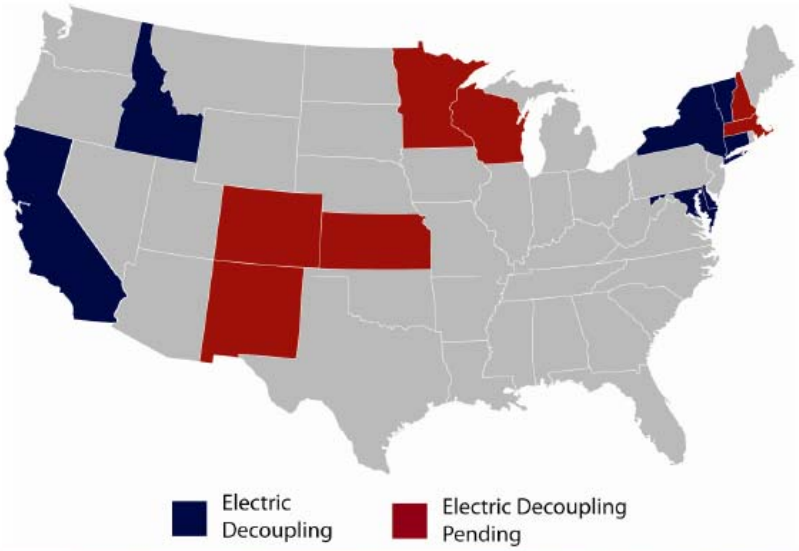
DSM cost recovery mechanisms



THE CADMUS GROUP, INC.

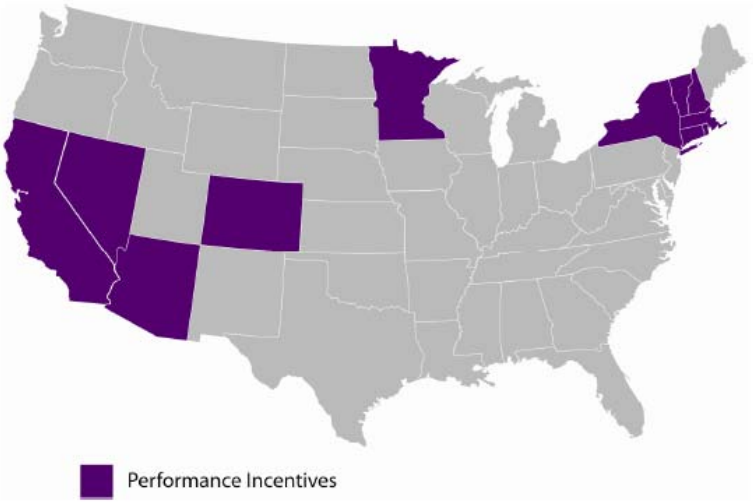
Source: Excerpts from **"Current Developments in DSM"**,
Dr. John Chamberlain, The Cadmus Group, 2/09

Electric Decoupling 2008



THE CADMUS GROUP, INC.

Which states have performance incentives?



THE CADMUS GROUP, INC.

Source: Excerpts from "Current Developments in DSM", Dr. John Chamberlain, The Cadmus Group, 2/09

17

Basic Approaches

Decoupling True-Ups

Decoupling mechanism adjusts rates periodically so that

Revenue = Revenue Requirement

Revenue adjustment mechanism (RAM) escalates revenue requirement between rate cases.

Decoupling can (& often does) apply to some rate classes (*e.g.* residential & small business) and not others (*e.g.* large business)

Alternative Regulation for Electric Utilities

PEG
Pacific Economics Group Research, LLC

19

SFV Pricing

An approach to base rate design which sets volumetric charge at *short* run marginal cost (close to zero)

Revenue shortfall recovered from higher demand and/or customer charges

Precedents:

- Widely used in interstate gas transmission
- Recent experimentation in gas *distribution*

Alternative Regulation for Electric Utilities

PEG
Pacific Economics Group Research, LLC

Source: Excerpts from "**Introduction to Alternative Regulation,"** Dr. Mark Lowry, Pacific Economics Group Research, LLC, 4/09.