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PUBLIC SERVICE COMMISSION



VIA E-FILING AND OVERNIGHT MAIL

December 30, 2008

Darrell Nitschke
Executive Secretary and Director of Administration
North Dakota Public Service Commission
State Capitol
600 East Boulevard, Dept. 408
Bismarck ND 58505-0480

RE: COMMENTS OF OTTER TAIL POWER COMPANY
North Dakota Public Service Commission
Electric Demand Side Management
Rulemaking
Case No. PU-08-884

Dear Mr. Nitschke:

On November 20, 2008, the State of North Dakota Public Utilities Commission invited comments on Demand Side Management Rulemaking in preparation for a workshop on cost/benefit analysis to be held on January 5, 2009. Otter Tail Power Company respectfully submits the following for consideration in the discussion around policy goals and objectives.

Please contact me at (218) 739-8303, or kpederson@otpco.com should you have any questions with respect to this matter.

Very truly yours,


Kim Pederson
Manager, Market Planning

KP/jmwf

Enclosures

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Comments on Electric Demand Side Management
Rulemaking

Otter Tail Corporation

STATE OF NORTH DAKOTA
BEFORE THE
PUBLIC SERVICE COMMISSION

North Dakota Public Service Commission
Electric Demand Side Management
Rulemaking

Case No. PU-08-884

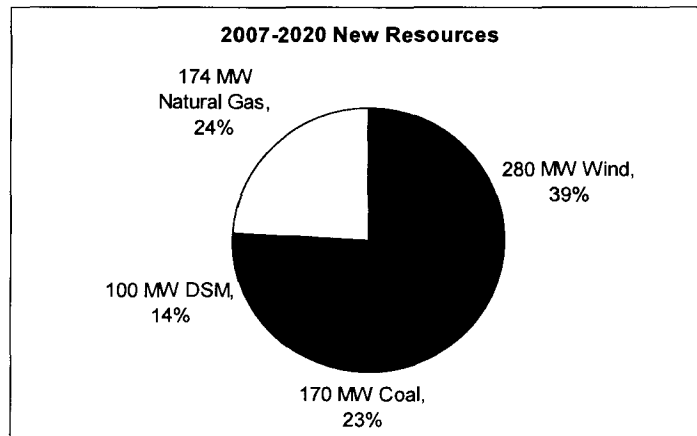
COMMENTS OF OTTER TAIL POWER COMPANY

On November 20, 2008, the State of North Dakota Public Service Commission invited comments on Demand Side Management Rulemaking in preparation for a workshop on cost/benefit analysis to be held on January 5, 2009. Otter Tail Corporation d/b/a Otter Tail Power Company respectfully submits the following for consideration in the discussion around policy goals and objectives.

1. What policy goals and objectives should the Commission consider when considering energy efficiency programs?

- Should the Commission consider the use of energy efficiency as a resource in addition to building additional power plants in order to meet future energy needs?

Otter Tail Power Company plans to meet increasing customer demand for electricity by using a balanced mix of energy resources which includes energy efficiency. In January 2008 we filed our most recent update to our 2006-2020 Resource Plan with the Minnesota Public Utilities Commission. This Resource Plan calls for adding the following new resources by 2020. North Dakota customers play an important role in meeting our long-term demand side management objectives of 100 MW of new DSM by 2020.



- If so, should energy efficiency programs need to produce cost effective, firm energy savings?

Energy efficiency programs should be cost-effective. A measure of persistence and sustainability can be assumed with energy efficiency, which in turn can be defined as permanent reduction in energy use.

- Should energy efficiency programs be used to achieve both energy and demand reductions?

Some energy efficiency programs can achieve both energy and demand reductions, and some load management programs can achieve both demand and energy reductions. Energy efficiency programs typically result in energy reductions, where load management programs are most often identified with coincident demand reductions. A balance of both is necessary to achieve the optimal demand side management portfolio.

- Should energy efficiency programs provide immediate and dependable energy savings supplied throughout the relevant lifetime of the program?

Energy efficiency programs can provide immediate and dependable energy savings throughout the lifetime of the technology. For instance, an inefficient lighting system replaced with an efficient lighting system will provide immediate and relatively sustainable energy savings throughout its technical lifetime. In some programs discounts can be applied to recognize degradation of technologies or persistence of the application.

- Should energy efficiency programs address efficiency improvements in a comprehensive manner in order to make the most cost-effective use of energy efficiency expenditures?

Typically demand side management potential studies are used to determine the most cost-effective use of energy efficiency expenditures. Otter Tail Power Company has conducted demand side management potential studies to determine the market penetration of technologies and the economic potential associated with their installation. The last study was conducted in 2002 and likely needs updating.

In other cases, cost/benefit analysis will help determine the most cost-effective use of energy efficiency expenditures. For example, commercial lighting retrofits are typically among the most cost-effective programs. Otter Tail Power Company believes that the most prudent approach for North Dakota would be to offer a sensible, cost-effective portfolio of energy efficiency representing technologies with the greatest potential for energy savings that will translate into bill savings for customers.

- Should program proposals provide an analysis of anticipated impact on low-income consumers?

It is the Company's experience that low-income programs can be difficult to cost-justify from a demand-side management perspective, in large part because the customer does not pay anything for the services. In that regard, low-income programs are subsidized by other customers.

- Should program proposals target customers residing in structures most in need of efficiency improvements?

The Company interprets "structures" to mean building envelope improvements. It is the Company's experience that building envelope improvements can be cost-justified, but the program effectiveness can vary by market segment. We do offer such programs in other jurisdictions to certain market segments and within certain parameters.

2. What benefit /cost tests should the Commission use for reviewing energy efficiency and load management programs?

Many states and utilities around the country measure the cost-effectiveness of conservation programs from four different perspectives—societal, utility, program participant, and ratepayer. The California Public Utilities Commission and the California Energy Commission developed a manual for carrying out these tests, which are used widely around the country. Benefit-cost ratios are typically based on benefits that will be received and costs that will be incurred over a 10 to 20 year period.

Many states rely on the societal test to determine cost-effectiveness of a program. These states have a goal of serving the overall public interest, not the interest of one particular segment of society such as utilities, program participants, or other ratepayers.

The utility test (also referred to as the revenue requirements test) compares the funds that a utility would need to carry out two alternative strategies to meet its customers' energy needs. The first approach includes the utility sponsoring and funding a demand side management program. Under the alternative strategy, the utility provides the same amount of energy as would be conserved or reduced through demand side management. However, the utility test is somewhat of a misnomer. It does not show the impact of conservation on the utilities for two reasons. It does not include the loss of revenues that utilities will experience by selling less energy because of conservation. Second, the model is based on the assumption that utilities will pass the costs and benefits of conservation, including lost revenues, onto their customers by raising or lowering their electric rates. It is, however, very beneficial in the analysis of least-cost resource planning.

The societal test is really a combination of the participant and ratepayer tests with environmental factors typically, but not necessarily, included. The utility test is a separate test that compares the funding requirements of conservation versus production.

The ratepayer impact (RIM) test results are probably less certain than those of other tests because the test is sensitive to the differences between long-term projections of marginal costs and long-term projections of rates, two cost streams that are difficult to quantify with certainty.

Note also that the RIM test includes the lost revenue from the DSM program, which occurs with almost all energy efficiency programs. This is why most load management programs will pass the RIM test but many energy efficiency programs do not.

The overall level of sales over which future revenue requirements will be spread obviously has an impact on rates. However, since there is no lost revenue counterpart on the supply side (although supply addition also has an impact on sales), including lost sales skews

the analysis in favor of the supply-side option instead of the energy efficiency or conservation option.

More important, since lost revenues are a function of current and projected rates, including them introduces the utility's embedded costs into what is otherwise a marginal analysis. A RIM test would thus reject programs for any utility with higher rates, regardless of that utility's capacity needs. Including revenues lost over the life of a DSM program as a direct cost inappropriately distorts the comparison between alternative supply- and demand-side investments.

In addition the RIM test measures impacts to nonparticipants. The RIM test (or nonparticipant test as it is often called) uses the same costs and benefits as the Revenue Requirements Test (utility test) but adds the utility's "lost revenues" as a cost. Many states do not rely on the RIM test because of the assumption that "lost revenues" will cause rates to increase because the utility will not be able to recover its revenue requirement.

The Company recommends that all tests be contemplated in the review of demand-side management programs; however, from a utility resource planning perspective we rely on the utility test.

3. What policy goals should the Commission use to evaluate the results of the benefit cost tests? (Reducing or postponing future construction of generation; reducing or postponing future reservation of capacity on natural gas transmission pipelines; mitigation of customer bill increases)?

Properly conducted analysis of demand side management alternatives will consider reductions and postponements in future generation, less reliance on volatile wholesale markets, reduced need for additional transmission and distribution, and reductions in customer energy usage resulting in lower energy bills.

Utilities in North Dakota have an impressive history of providing low-cost, reliable energy to its customers. The only component not aggressively included in their portfolio of balanced generation resources is a robust energy efficiency plan. Most utilities, including Otter Tail Power Company, have fairly sophisticated load management programs in existence. But most, including Otter Tail Power Company, do not have energy efficiency programs in place for North Dakota customers. The Commission's study of this issue is timely and the Company supports an energy policy that includes realistic and cost effective energy efficiency goals in North Dakota.

4. How should educational programs be treated?

Educational programs have a place in an energy efficiency portfolio. Unlike direct impact programs that include installation of a technology with a generally accepted sustainable lifetime, educational programs may not always result in energy savings that is dependable.

This is because customers can always change their minds about the temperature in their homes and their lifestyle habits, for example.

Educational programs can vary widely by definition, also. Some programs can include components that include verification and measurement. Others are purely information sharing.

We believe that education is a critical component of any energy efficiency plan and warrants cost recovery as a component of energy efficiency investments.

5. How should the Commission evaluate energy efficiency programs after implementation and what percentage of costs should be allowed for evaluation?

Recognizing that it is not the Commission's desire to burden staff or the utilities with unnecessary analysis, we recommend a fairly basic approach.

1. The utilities should file their programs, program budgets including an allocation for evaluation, energy and demand savings goals, and benefit/cost ratios in advance of the implementation year. Evaluation budget percentages can vary by program and by the requirements of the state. If the state will allow the utilities to use widely accepted engineering assumptions and proven methodologies for evaluating energy impacts, the evaluation budget need not be significant. However, if the utilities need to conduct sophisticated analysis to justify expenditures and cost recovery, evaluation budgets can easily run 30%-40% of a program's overall costs, if not more.
2. Following the year of implementation, utilities should file their results, including budgets, energy and demand savings reductions achieved, and final benefit/cost

ratios. Program results should be evaluated based on overall objectives and results. The evaluation will indicate whether the program was cost-effective.

6. Dynamic pricing, which is a means of achieving demand response through rate designs that reflect the time-varying nature of utility power production costs, can be used to influence customer behavior using price signals. Dynamic pricing may be coupled with advanced metering infrastructure or with less costly interval metering systems.

- What dynamic pricing programs are already available to North Dakota customers, such as time-of-use rates, critical peak rates, seasonal price differentials, and payments to customers to curtail their usage?

Otter Tail Power Company has a number of rates that we believe meets this question's definition of dynamic pricing. Attachment A details rates included in our North Dakota rate case filing. The column labeled "Dynamic Pricing" depicts the type of dynamic pricing category, if applicable.

- What benefit cost tests should the Commission use to evaluate Demand response programs for approval?

Some demand response programs lend themselves well to the same kind of analysis used in evaluating load management and energy efficiency programs. Most of Otter Tail's demand response portfolio can be evaluated using the benefit-cost tests described earlier.

- How should companies address the effects on the elderly, low-income or handicapped customers who may be unable to easily shift or curtail energy use?

The purpose of the Low Income Home Energy Assistance Program (LIHEAP) in North Dakota is to provide home energy assistance to eligible low income households.

The North Dakota Department of Human Services and the County Social Service Boards administer the LIHEAP program. We support the efforts of LIHEAP and believe this is the appropriate way in which to address the affects on these customers.

Low-income, elderly, and handicapped customers all have access to the rates and programs offered by Otter Tail. We do not currently offer a program or rate specifically for this group.

7. Other issues that participants may raise concerning policies and methodologies for evaluating electric utility energy efficiency and load management programs.

Cost recovery and utility financial stability are at the heart of a successful energy efficiency plan in North Dakota. Otter Tail Power Company supports development of a cost recovery mechanism, either through base rates or a rider, plus carrying costs and a return on investment that at a minimum put energy efficiency on par with supply side investments.

North Dakota - Rate Schedules

Current Rate Schedules - Description	Seasonal or Annual-Based Rates	Proposed Rate Schedule - Description	Seasonal or Annual-Based Rates	Dynamic Pricing Program	Notification Method	Voluntary or Mandatory Control
Residential Service	Annual	Residential Service	Seasonal	Seasonal	N/A	N/A
Residential Demand Control Service	Seasonal kW	Residential Demand Control Service	Seasonal	Critical Peak Curtailment	Radio Signal	Voluntary Control
Farm Service	Annual	Farm Service	Seasonal	Seasonal	N/A	N/A
General service	Annual	Small General Service (Under 20 kW)	Seasonal	Seasonal	N/A	N/A
General service	Annual	General Service (20 kW or Greater)	Seasonal	Seasonal	N/A	N/A
Large General Service	Seasonal	Large General Service	Seasonal	Seasonal	N/A	N/A
Not Available	N/A	Commercial Service – Time of Use	Seasonal	Critical Peak & TOD	Day-ahead email	Voluntary Control
Large General Service – Time of Day	Seasonal	Large General Service – Time of Day	Seasonal	TOD	N/A	Voluntary Control
Standby Service	Seasonal	Standby Service	Seasonal	TOD	N/A	Opt 1: N/A Opt 2: Mandatory Control
Irrigation Service	Seasonal	Irrigation Service	Seasonal	Opt 1: Seasonal Opt 2: Critical Peak & TOD	Opt 1: N/A Opt 2: Day Ahead email	Opt 1: N/A Opt 2: Voluntary Control
Outdoor Lighting – Energy Only Dusk to Dawn	Annual	Outdoor Lighting – Energy Only Dusk to Dawn	Annual	N/A	N/A	N/A
Outdoor Lighting Dusk to Dawn	Annual	Outdoor Lighting Dusk to Dawn	Annual	N/A	N/A	N/A
Municipal Pumping Service	Seasonal	Municipal Pumping Service	Seasonal	Seasonal	N/A	N/A
Civil Defense - Fire Sirens	Annual	Civil Defense - Fire Sirens	Annual	N/A	N/A	N/A
Small Power Producer Rider Occasional Delivery Energy Service (Net Energy Billing Rate)	Annual	Small Power Producer Rider Occasional Delivery Energy Service (Net Energy Billing Rate)	Annual	N/A	N/A	N/A
Small Power Producer Rider Time of Delivery Energy Service	Seasonal	Small Power Producer Rider Time of Delivery Energy Service	Seasonal	TOD	N/A	N/A
Small Power Producer Rider Dependable Service	Seasonal	Small Power Producer Rider Dependable Service	Seasonal	TOD	N/A	N/A
Water Heating Control Rider	Seasonal	Water Heating Control Rider	Seasonal	Payment or Reduced kWh	Radio Signal	Mandatory Control
Real Time Pricing Rider	Hourly	Real Time Pricing Rider	Hourly	RTP	Day-ahead email	Voluntary Control
Not Available	N/A	Large General Service Rider	Hourly or Seasonal	Opt 1: Hourly Opt 2: TOD	Radio Signal	Mandatory Control

North Dakota - Rate Schedules

Current Rate Schedules - Description	Seasonal or Annual-Based Rates	Proposed Rate Schedule - Description	Seasonal or Annual-Based Rates	Dynamic Pricing Program	Notification Method	Voluntary or Mandatory Control
Controlled Service – Interruptible Load CT Metering Rider (Large Dual Fuel)	Seasonal	Controlled Service – Interruptible Load CT Metering Rider (Large Dual Fuel)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Controlled Service – Interruptible Load Self-Contained Metering Rider (Small Dual Fuel)	Seasonal	Controlled Service – Interruptible Load Self-Contained Metering Rider (Small Dual Fuel)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Controlled Service Deferred Load Rider (Thermal Storage)	Seasonal	Controlled Service Deferred Load Rider (Thermal Storage)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Fixed Time of Delivery Rider (Fixed TOD)	Annual	Fixed Time of Delivery Rider (Fixed TOD)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Fixed Time of Delivery Rider (Fixed TOD)	Annual	Fixed Time of Delivery Rider (Fixed TOD)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Fixed Time of Delivery Rider (Fixed TOD)	Annual	Fixed Time of Delivery Rider (Fixed TOD)	Seasonal	Reduced Rate	Radio Signal	Mandatory Control
Not Available	N/A	Air Conditioning Control Rider (CoolSavings)	Seasonal	Payment	Radio Signal	Mandatory Control
Voluntary Renewable Energy Rider (TailWinds)	Annual	Voluntary Renewable Energy Rider (TailWinds)	N/A	N/A	N/A	N/A
WAPA Bill Crediting Program Rider	Annual	WAPA Bill Crediting Program Rider	N/A	N/A	N/A	N/A
Released Energy Access Program (REAP) Rider	Hourly	Released Energy Access Program (REAP) Rider	Hourly	Payment	Released Energy Profile-Internet	Mandatory Control
Bulk Interruptible Service Application and Pricing Guidelines	Annual	Bulk Interruptible Service Application and Pricing Guidelines	Annual	Reduced kWh	Radio Signal	Mandatory Control
General service-Controlled Demand	Seasonal kW	Cancelled	Seasonal	Reduced Rate	Radio Signal	Voluntary Control
LGS-Off Peak Rider	Seasonal	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled
WAPA Bill Crediting Program Rider	N/A	WAPA Bill Crediting Program Rider	N/A	N/A	N/A	N/A
Electric Climate Control	Annual	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled