

**Public Service Commission
Federal 2005 Energy Policy Act Standards
Investigation**

Case No. PU-06-290

**Working Session
January 11, 2007**

Background:

On August 8, 2005 the federal Energy Policies Act of 2005 (Act) was enacted. Subtitle E of the electricity title (Title XII) of the Act amends the Public Utility Regulatory Policies Act of 1979 (PURPA) to require each state regulatory authority to consider adopting certain specified energy policy standards.

Section 1251 of the Act amends PURPA to require that states conduct an investigation and issue a decision whether to adopt three new standards:

1. A net metering standard that would require electric utilities to make net metering available to customers upon request;
2. A fuel sources standard that would require each utility to develop a plan to minimize dependence on one fuel source and insure use of a diverse range of fuels and technologies, including renewables; and
3. A fossil fuel efficiency standard that would require each utility to develop a 10-year plan to increase the efficiency of its fossil fuel generation.

Proceedings under section 1251 are to be started within two years and completed within three years after enactment of the Act.

Section 1252 of the Act amends PURPA to require that states conduct an investigation and issue a decision whether to require utilities to install time-based meters that would enable, but not require, each customer to participate in time-of-use rates and demand response programs. Proceedings are to be started within one year and completed within two years after enactment.

Section 1254 of the Act amends PURPA to require that states consider adopting new standards for grid interconnection based on IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems. Proceedings are to be started within one year and completed within two years after enactment.

Summary of NDPSC Proceedings:

On July 26, 2006 the Commission issued an Order Opening Investigation and Notice of Workshop 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 Act. Those interested were encouraged but not required to submit written comments prior to the workshop. The Commission clarified in its notice that formal intervention would not be necessary to participate in the proceeding, but anyone wishing to become a formal party must file a petition to intervene with the Commission prior to the workshop. The

Commission further stated in its notice that, under certain conditions, compensation for expenses incurred by participation or intervention in this proceeding may be available under PURPA section 122. The Commission's notice identified the following issues to be considered:

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.

On October 5, 2006, Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., (MDU) filed a petition to intervene, which was granted by the Commission on October 12, 2006.

On October 18, 2006, Imation Corp. (Imation) filed a Petition to Intervene and Comments Of Imation Corp. The Commission granted Imation's petition on October 25, 2006.

On October 23, 2006 a workshop was held as scheduled. The record was held open following the workshop for receiving additional written comments through November 22, 2006.

Summary of Written Comments:

Written Comments were received from MDU, Otter Tail, Dakota Resource Council (DRC) and Imation. In short summary, both MDU and Otter Tail Corporation (OTP) urge the Commission not to adopt any of the EAct standards. DRC comments that our generation mix is heavily dependent on coal and that the existing requirement for net metering needs to apply to RECs as well. Imation urges the Commission to require Otter Tail to offer time based rates. Northern States Power Company d/b/a Xcel Energy provided oral comments at the workshop supporting the recommendations of Otter Tail and MDU that none of the standards be adopted. A more detailed summary of written comments received follows:

Section 1251(d) (3): Net Metering

MDU: MDU believes the net metering standard is not applicable because the ND PSC has already considered and adopted a net metering requirement under section 69-09-07-09(3) of the North Dakota Administrative Code. Even if the Commission had not adopted a net metering standard, MDU would urge the Commission not to adopt such a standard because the incentives provided are at the expense of other customers. MDU notes that unless a utility's retail rate structure accurately reflects separate cost based components for energy, capacity and customer related services, the offset mechanism in the EAct net metering standard will result in significant subsidies to generating customers at the expense of other customers. MDU was further concerned that QFs

should not be allowed to use net metering as a method of avoiding the Section 1253 exemption to the PURPA obligation to purchase. MDU suggests amending Commission rules to reduce the availability of net metering to QFs with a design capacity of 50 kW or less.

OTP: OTP believes the ND Administrative Code 69-09-07-09 covers the EPAct standard so the Commission need not adopt it. OTP agrees with MDU's response.

DRC: DRC comments that ND already requires IOUs to offer net metering, but a net metering requirement needs to apply to the RECs as well.

Section 1251(a)(12) Generation Fuel Diversity:

MDU: MDU recommends that a generation fuel diversity standard not be adopted because its generation fuel mix is effectively defined by its existing generating portfolio. Of the 490 MW of company owned generation, 124 MW (25%) is fueled by natural gas or fuel oil and the remaining 366 MW (75%) is fueled by coal. Additionally, MDU has contracted for 30.5 MW of wind power that is yet to be constructed. MDU employs IRP for determining optimal long range resource plans, where generation fuel type is objectively determined through the application of supply side resource planning principles to determine the best-cost resource. MDU's service area is in the middle of large coal and natural gas reserves and in an area with significant potential for wind development. Within that universe of likely fuel choices, least-cost planning principles will drive resource optimization and fuel choice. There is no good reason to depart from this existing standard for determining generation resource choice and corresponding generation fuel mix. MDU also emphasizes the importance of its diversity in methods of transporting coal from the mine to generating facility.

OTP: OTP believes the standard is unnecessary and should not be adopted. 73% of OTP's resource mix is coal, 17% purchases, 7% hydro and the remainder is from a mixture of wind, biomass, fuel oil, solid waste and natural gas. This mix was determined by geographic location and other factors including the IRP process and the MN Renewable Energy Objective. OTP believes fuel diversity will continue to develop based on economics, technology, and legislation such as the MN REO legislation.

DRC comments that we are heavily over-dependent on coal. One of the contributing factors is current state law prohibiting the consideration of externalities in rate-setting under NDCC 49-02-23. ND wind resource can provide needed balance in resource plans because it is not vulnerable to ever-stricter emissions regulations or a likely federal carbon emissions cap. Wind power is the lowest cost new generation.

Section 1251(a)(13): Fossil Fuel Generation Efficiency:

MDU: MDU recommends not adopting the standard. Participation in MISO markets already drives companies to wring out any available generating efficiencies. MDU has a long history of making incremental efficiency improvements to existing thermal

generation. The conversion of R.M. Heskett Station to a fluidized bed boiler, replacement of process control systems, steam turbine component modifications and retrofits, variable frequency motor drives, replacement of generator excitation systems, and coal blending. The heat rate for combustion turbines is largely fixed by the design of the installed generation. Heat rates for coal fired units is largely determined by boiler design and choice of coals. MDU's boilers and ash handling equipment are designed and sized for lignite coal. Anything more than a partial blend of sub-bituminous coal would require overcoming significant operational hurdles. MDU further points out that efficiency improvements may be constrained by air emission regulations and that modifications to increase generation will often trigger EPA New Source Performance Standards under the Clean Air Act, thus resulting in large and uneconomical capital expenditures.

OTP: OTP believes the standard is unnecessary and should not be adopted. The process could constrain or complicate a process already working well. IRP includes generation efficiency while economic and financial considerations encourage utilities to continue to seek ways to make generation more efficient. OTP provides a long list of projects undertaken to increase efficiency at OTP plants.

Section 1252(a)(15) – Smart Metering:

MDU: MDU urges the Commission not to adopt the smart metering standard because MDU would need to equip customers with advanced metering technology as well as the applicable communication and billing technology. The capital cost would be large and then customers will be exposed to substantial price risk. Not all customers have the ability to properly respond to price signals, thus negating the benefits implied in mandatory time based rate schedules. If smart metering were optional for customers then only the customers who weren't cost causers would sign up. MDU already offers various rates and services to customers including time-of-use and dual fuel rates, radio controlled load control and MDU provides consumption data to larger customers to assist them in managing their load. MDU is currently embarking on an Automated Meter Reading project as well. MDU urges a measured and cautious approach to the rate structures proposed in the EAct standard that is only possible if the EAct standard is rejected.

OTP: OTP urges the Commission not to adopt the standard, but rather to address each utility and the type of metering technology and load management infrastructure on a case-by-case basis. During the workshop OTP responded that mandated costs can be a hindrance. OTP load management dates back to the 1940's when time clocks were installed to control water heaters. Otter Tail still provides innovative rates and load management programs that meet the needs of its customers and the region. OTP continues to add new meter technology and related infrastructure whenever it becomes economic for both customers and company. Flexibility is needed, not a one size fits all approach that can tie companies' hands and force uneconomic decisions.

Imation Corp. Imation is a large high load factor industrial customer of Otter Tail Corporation and urges the Commission to adopt time differentiated rates that are a) based on average embedded cost and reflect the utility's differences in cost between daytime and nighttime hours, and b) appropriately reward high load factor customers such as Imation. Imation stresses the importance to its competitive survival and urges the Commission to require Otter Tail to offer time based rates as quickly as possible. Otter Tail has since filed a large general service time-of-use rate that is currently under review.

1254(1)(15) Interconnection services based on IEEE Standard 1547:

MDU: MDU urges the Commission not to adopt the interconnection standard MDU feels the EPAct interconnection standard is unnecessary because MDU has had an interconnection procedure and policy in place since 1989. MDU is unaware that the interconnection requirements presently in place have caused potential customers to not interconnect. The process MDU follows is more streamlined, but similar to the NRECA process shown in Figure 7.1 on page 97 of the NARUC PURPA Manual. MDU's "Guidelines for Interconnection Requirements and Parallel Operation of Customer Owned Generation" is available upon request. Transmission interconnection is provided through MISO. MDU is concerned that IEEE 1457 is not yet complete as supporting documents 1547.2 through 1547.6 are planned but not yet written. IEEE 1457 replaces previous IEEE Standard 1001-1988, which MDU's current standards are based on with modifications necessary for MDU's system. There are presently 19 different interconnection designs in MDU's guideline, with many more slight variations possible to satisfy needs and requirements. MDU intends to revise its guidelines as necessary to keep in tune with the new IEEE 1547 standards as they develop, but until then it would be inappropriate to blindly adhere to them.

OTP: Otter Tail believes the Commission should not adopt this standard because it is unnecessary and may limit flexibility. OTP has an interconnection process approved in MN that may work in ND as well. OTP desires flexibility to work with the Commission and other utilities to develop a process for interconnection in ND that may or may not follow the specifications in Section 1254.

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