STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Federal 2005 Energy Policy Act Standards Investigation

Case No. PU-06-290

Order
August 8, 2007

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

Section 1251 of the Act amends PURPA asking states to 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 asking states to 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 ask 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 North Dakota Public Service 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 should 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.

On January 24, 2007 the Commission issued a Notice of Paper Hearing, consisting of an additional opportunity for those interested to further comment in writing prior to May 1, 2007.

Summary of Comments Received:

Written comments were received from MDU, Otter Tail, the Dakota Resource Council (DRC) and Imation Corporation (Imation). In short summary, both MDU and Otter Tail urge the Commission not to adopt any of the EPAct standards. DRC comments that ND generation mix is heavily dependent on coal and that the existing requirement for net metering needs to apply to rural electric cooperatives as well as regulated utilities. 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 follows:

Section 1251(d)(3): Net Metering
(PURPA § 111(d)(11))

MDU believes the net metering standard is not applicable because the Commission 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 EPAct net metering standard will result in significant subsidies to generating customers at the expense of other customers. MDU was concerned that PURPA Qualifying Facilities should not be allowed to use net metering as a method of avoiding the Act's 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.

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

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

Section 1251(a)(12) Generation Fuel Diversity:
(PURPA §111(d)(12))

MDU recommends that a generation fuel diversity standard not be adopted because MDU's 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 integrated resource planning (IRP) for determining optimal long range resource plans, where generation fuel type is objectively determined through the application of 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 further emphasizes the importance of its diversity in methods of transporting coal from the mine to generating facility.

Otter Tail recommends that a generation fuel diversity standard is not necessary and should not be adopted. 73% of Otter Tail'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 resource mix was determined by geographic location and other

factors including the IRP process and the MN Renewable Energy Objective. Otter Tail believes fuel diversity will continue to develop based on economics, technology, and legislation.

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

Section 1251(a)(13): Fossil Fuel Generation Efficiency:
(PURPA § 111(d)(13)

MDU recommends not adopting a fossil fuel generation efficiency standard. MDU comments that 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. MDU cites its 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 as modifications to increase generation efficiency will often trigger EPA New Source Performance Standards under the federal Clean Air Act, thus resulting in large and uneconomical capital expenditures.

Otter Tail recommends a fossil fuel generation efficiency standard is not necessary and should not be adopted. The process could constrain or complicate a process already working well. The existing IRP process includes consideration of generation efficiency improvements. Economic and financial considerations encourage utilities to continue to seek ways to make generation more efficient. Otter Tail provides a long list of projects undertaken to increase the efficiency of its fossil fuel generation.

Section 1252(a)(15) – Smart Metering:
(PURPA §111(d)(14))

MDU urges the Commission not to adopt the smart metering standard because MDU would need to equip customers with advanced metering technology and obtain the applicable communication and billing technology. The capital cost would be large and customers would 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 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 rates, dual fuel rates and radio controlled load management. 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 EPAct smart metering standard that is only possible if the standard is rejected.

Otter Tail urges the Commission not to adopt the smart metering 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 Otter Tail responded that mandated costs can be a hindrance. Otter Tail 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. Otter Tail continues to add new meter technology and related infrastructure whenever it becomes economic for both customers and company. Otter Tail believes flexibility is needed rather than a one size fits all approach that can tie companies' hands and force uneconomic decisions.

Imation Corporation is a large high load factor industrial customer of Otter Tail and urges the Commission to adopt a requirement for time differentiated rates that: a) are 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.

Section 1254(1)(15) Interconnection services based on IEEE Standard 1547:
(PURPA section 111(d)(15))

MDU believes the interconnection standard is not necessary and recommends that it not be adopted. MDU has had an interconnection procedure and policy in place since 1989 and is unaware that these existing interconnection requirements have caused potential customers to not interconnect. MDU expressed concern 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.

Otter Tail recommends the Commission should not adopt the interconnection standard because it is not necessary and may limit flexibility. Otter Tail has an interconnection process approved in MN that may work in ND as well. Otter Tail 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.

Commission Decision:

Without conceding that the federal Act can *require* states to consider adopting certain energy policy standards, the Commission makes the following decisions on its own volition.

The Commission will not take further action to adopt the federal net metering standard under PURPA § 111(d)(11) because the Commission has already considered and adopted a net metering requirement for jurisdictional electric utilities under section 69-09-07-09(3) of the North Dakota Administrative Code. The Commission has no authority to adopt a net billing requirement for rural electric cooperatives as advocated by DRC.

The Commission will not take further action to adopt the federal fuel diversity standard under PURPA §111(d)(12). All jurisdictional utilities in North Dakota employ integrated resource planning (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.

The Commission will not take further action to adopt the federal fossil fuel generation efficiency standard under PURPA § 111(d)(13), which would require utilities to "develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation." The Midwest Independent System Operator (MISO) wholesale energy market provides market incentives to optimize the efficiency of generation resources. Efficiency upgrades to fossil fuel generation facilities are also considered as part of the IRP process for determining best-cost resources.

The Commission will initiate a rulemaking to pursue adoption of a modified version of the smart metering standard under PURPA §111(d)(14). The suggested federal standard lists three non-exclusive examples of time-based rate schedules that would satisfy the standard: time-of-use pricing, critical peak pricing, and real-time pricing. Advanced metering may be needed for some of these rate schedules. The Commission will propose rules to require that each jurisdictional electric utility:

1. Offer time based rate schedules for retail electricity sales to large commercial and industrial customers under which the rate varies during different time periods and reflects the variance, if any, in the utility's cost of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications. The types of time based rates that may be offered include, among others, time-of-use pricing, critical peak pricing, real-time pricing, and credits for customers with preestablished load reduction programs.
2. Provide each large commercial or industrial customer requesting service under an authorized time-based rate schedule with a time-based meter capable of enabling the utility and the customer to offer and receive such rate.

The Commission expects that a successful rulemaking will provide an opportunity under the Commission's process for approving rate schedule changes to carefully examine technical and cost issues related to implementing just and reasonable time-differentiated rates for large commercial and industrial Customers.

In addition, the Commission will require each jurisdictional electric utility to include in its annual report to the Commission, beginning with reports filed for 2007, a discussion of progress towards the feasibility of making smart metering available for all customers.

The Commission will not take further action to adopt the federal interconnection standard in PURPA section 111(d)(15). No party supported adoption of the federal standard and the jurisdictional utilities recommended that the Commission should reject it. MDU raised concerns that IEEE 1457 is not yet complete and may require modifications to be compatible with MDU's interconnection needs. We expect the utilities to continue working to develop and refine interconnection practices that incorporate IEEE 1547 as appropriate.

Therefore, the Commission issues the following:

Order

The Commission Orders:

1. A rulemaking be initiated to propose adoption in part of the federal smart metering standard under the amended PURPA §111(d)(14) as further described in the body of this document.

2. Each jurisdictional electric utility shall include in its annual reports to the Commission, beginning with reports filed for 2007, a discussion of progress towards the feasibility of making smart metering available for all customers.

3. Each jurisdictional electric utility shall work to develop and refine interconnection practices that incorporate IEEE 1547 as appropriate.

PUBLIC SERVICE COMMISSION

Tony Clark	**Susan E. Wefald**	**Kevin Cramer**
Commissioner	**President**	**Commissioner**