

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE
CONSIDERATION OF THE NEW PURPA
STANDARDS**

)
)
)

**ORDER ADOPTING
MODIFIED ELECTRIC PURPA
STANDARDS
EL08-028**

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. The EISA includes four new federal Public Utility Regulatory Policies Act of 1978 (PURPA) standards for state commissions and utilities to consider. The standards are (1) Integrated Resource Planning; (2) Rate Design Modification to Promote Energy Efficiency Investments; (3) Consideration of Smart Grid Investments; and (4) Smart Grid Information. The Commission must consider these standards and make a determination on whether their implementation will help meet the PURPA goals of encouraging the conservation of energy supplied by electric utilities, achieving optimal efficiencies of electric utility facilities and resources, and setting equitable rates for electric consumers.

At its November 25, 2008, meeting, the Commission considered this matter. Staff recommended that the Commission open a docket to consider the standards, use the December 19, 2009 deadline for all of the standards, conduct an initial paper hearing, and have Staff work with Commission Counsel to set a procedural schedule after time for intervention has run. The Commission unanimously voted to open a docket to consider the four new PURPA standards by December 19, 2009, and set an intervention deadline of December 31, 2008.

On December 22, 2008, the Commission received Petitions to Intervene from Montana-Dakota Utilities Co. (MDU) and Otter Tail Corporation d/b/a Otter Tail Power Company (OTP). On December 23, 2008, the Commission received a Petition to Intervene from MidAmerican Energy Company (MidAmerican). On December 24, 2008, the Commission received a Petition to Intervene from Xcel Energy (Xcel). On December 30, 2008, the Commission received Petitions to Intervene from NorthWestern Corporation d/b/a NorthWestern Energy (NorthWestern) and Black Hills Power, Inc. (BHP). At a regularly scheduled meeting of January 27, 2009, the Commission granted intervention to MDU, OTP, MidAmerican, Xcel, NorthWestern, and BHP. Written comments were subsequently filed by all of the parties.

The Commission set a procedural schedule, with the hearing set for September 22, 2009. The hearing was held as scheduled. At its December 8, 2009 meeting, the Commission considered the standards. The Commission made the following rulings: (1) the Commission unanimously voted to adopt the Integrated Resource Planning standard with modifications; (2) the Commission voted to adopt the Rate Design Modifications to Promote Energy Efficiency Investments standard with modifications (Chairman Johnson dissented on changing "shall" to "may"); (3) the Commission unanimously voted to adopt a reporting requirement for the Consideration of Smart Grid Investments; and the Commission unanimously voted to reject the Smart Grid Information standard.

Based upon the record in this proceeding, the Commission makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

1. The EISA was signed into law on December 19, 2007. The EISA includes four new electric federal PURPA standards for state commissions and utilities to consider. The standards are: (1) Integrated Resource Planning; (2) Rate Design Modification to Promote Energy Efficiency Investments; (3) Consideration of Smart Grid Investments; and (4) Smart Grid Information.

2. The Commission must consider these standards and determine whether their implementation will help meet the PURPA goals of encouraging the conservation of energy supplied by electric utilities, achieving optimal efficiencies of electric utility facilities and resources, and setting equitable rates for electric consumers.

3. With respect to consideration of these PURPA standards, the Commission has jurisdiction over its rate-regulated electric utilities. Intervention was granted to all six rate-regulated utilities which are MidAmerican, MDU, OTP, Xcel, NorthWestern, and BHP. Thus, references to "electric utilities" apply to these six utilities.

4. The Commission received written comments and testimony from the parties and the hearing was held as scheduled on September 22, 2009.

Integrated Resource Planning

5. The standard regarding integrated resource planning is as follows:

Each electric utility shall—

- (A) integrate energy efficiency resources into utility, State, and regional plans;
and
- (B) adopt policies establishing cost-effective energy efficiency as a priority resource.

6. None of the parties recommended requiring an integrated resource plan for South Dakota. Ex. 1 at 6. The most common reason for opposing the imposition of an integrated resource plan requirement was that the cost of developing the plan outweighs the benefits. *Id.* Most of the utilities are currently required to develop an integrated resource plan in the other jurisdictions where they operate. *Id.* at 2-3. The Commission notes that the parties' objections centered on opposition to a mandated integrated resource plan, not objections to policies that promote energy efficiency as a priority resource. As noted by MidAmerican, "energy efficiency will play a very important role in meeting future resource needs." Ex. 6 at 12.

7. Commission Staff opposed requiring a mandated integrated resource plan for a number of reasons. Staff pointed out that South Dakota law currently requires utilities that are planning to own or operate energy conversion facilities to file a ten-year plan biannually. See SDCL 49-41B-3. With respect to costs, Staff stated that the cost to the utility could be as high as \$500,000 for each filing. *Id.* at 5.

8. The Commission finds that it will adopt the integrated resource planning standard with modifications. However, consistent with the testimony, the Commission will not require that each electric utility develop a South Dakota integrated resource plan that would be approved by the Commission. The Commission finds that, at this time, the considerable costs of a state-mandated integrated resource plan are unlikely to outweigh the benefits. In addition, the Commission finds mandating an integrated resource plan is unnecessary given the current ten year plan requirement, the multi-jurisdictional nature of the utilities with all but one having a small percentage of retail

sales in South Dakota, and the ability to review the utilities' plans prepared for other states or for their own use. Instead of mandating a South Dakota integrated resource plan, the Commission finds that it will require the electric utilities to file integrated resource plans with the Commission that are filed in other states or prepared for the utility's own purposes. These plans will be filed for informational purposes. The Commission further finds that it shall add the words "cost-effective" into part A of the standard.

9. Consistent with these findings, the Commission adopts the following modified standard:

Each electric utility shall—

- (A) integrate cost-effective energy efficiency resources into the plans and planning processes of the electric utility; and
- (B) adopt policies establishing cost-effective energy efficiency as a priority resource; and
- (C) file integrated resource plans that are filed with other state regulatory agencies when those plans may affect South Dakota power supply and rates; or if no integrated resource plans are required to be filed in other states, file any integrated resource plans prepared for South Dakota power supply planning purposes.

Rate Design Modifications to Promote Energy Efficiency Investments

10. The second standard requires the Commission to consider rate design modifications to promote energy efficiency investments. This standard provides:

(A) In general

The rates allowed to be charged by any electric utility shall—

- (i) align utility incentives with the delivery of cost-effective energy efficiency; and
- (ii) promote energy efficiency investments.

(B) Policy options

In complying with subparagraph (A), each State regulatory authority and each nonregulated utility shall consider—

- (i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;
- (ii) providing utility incentives for the successful management of energy efficiency programs;
- (iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;
- (iv) adopting rate designs that encourage energy efficiency for each customer class;
- (v) allowing timely recovery of energy efficiency-related costs; and
- (vi) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable.

11. This standard lists six policy options to be considered when determining whether to adopt the standard that rates should align utility incentives with the delivery of cost-effective energy efficiency and promote energy efficiency investments.

12. MidAmerican noted that removing the throughput incentive, often referred to as decoupling, separates the level of utility revenue from the amount of electricity sold but does not necessarily promote energy efficiency investments. MidAmerican stated that decoupling “simply removes the disincentive for a utility to pursue energy efficiency by eliminating the impact of resulting reductions in sales.” Ex. 6 at 16. MidAmerican stated that “an increase in the fixed costs included in the basic service charge could be effectively combined with utility incentives, pro forma adjustments or more frequent rate cases.” *Id.* at 17. MidAmerican further stated that the Commission already allows timely cost recovery of energy efficiency costs. *Id.* at 12-13.

13. NorthWestern suggested that the Commission evaluate the policy options listed in the standard “on an individual basis in relation to DSM or rate case filings made by rate-regulated utilities in South Dakota. This would allow the Commission and affected utilities to decide how the various policies may be best suited or not suited for the company and its customer needs.” Ex. 7 at 9.

14. MDU also suggested that the policy options and efficiency programs be considered on a case-by-case basis for each utility, giving consideration to the operating characteristics and demographics of the utility and its customers. Ex. 5 at 7.

15. Xcel stated that since rate design is an evolving process, the Commission does not need to adopt rate design standards which seek to promote energy efficiency at this time. Instead, the Commission should encourage utilities to engage in these discussions in rate cases as well as demand side management filings. Ex. 8 at 14.

16. BHP did not advocate removing the throughput incentive but encouraged the use of incentives to the utility. Ex. 4 at 10.

17. OTP stated that decoupling should not be mandated but can be an option for utilities. OTP stated that “well designed financial incentives are more likely to drive utility resource decisions.” Ex. 9 at 7.

18. Staff did not recommend adopting revenue decoupling because it can guarantee revenue requirement recovery which shifts too much risk to consumers and may remove some of the need for a utility to operate efficiently. Ex. 2 at 7. Staff pointed out that the promotion of energy efficiency investments has been a priority of the Commission and that recently approved energy efficiency plan costs are allowed timely recovery, generally through a rider that appears as a separate line item on the monthly bill. *Id.* at 10. Staff further stated that the Commission is already active in educating “the public about energy efficiency and advertises the financial and environmental benefits of smart energy use.” *Id.*

19. The Commission finds that it will adopt a modified version of this standard. For part A, the Commission substitutes “may” for the word “shall” and adds in “cost-effective” in A(ii). The Commission declines to adopt part B of the standard which lists policy options related to energy efficiency. The Commission finds that listing policy options for the Commission to consider is not necessary and may hinder the Commission’s ability to consider other policy options during its evaluation of cost-effective energy efficiency. The Commission also clarifies that the reference to rates in the standard includes the use of incentive mechanisms for energy efficiency programs. The Commission finds that, with these modifications, the standard is consistent with the

Commission's current practices and past actions which include the approval of energy efficiency plans implemented by the utilities. The Commission will continue to review and evaluate the cost-effectiveness of the utilities' energy efficiency plans.

20. Consistent with these findings, the Commission adopts the following modified standard:

The rates allowed to be charged by any electric utility may —

- (i) align utility incentives with the delivery of cost-effective energy efficiency;
and
- (ii) promote cost-effective energy efficiency investments.

Consideration of Smart Grid Investments

21. The third standard requires the consideration of smart grid investments. This standard states:

(A) In general

Each State shall consider requiring that, prior to undertaking investments in nonadvanced grid technologies, an electric utility of the State demonstrate to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including—

- (i) total costs;
- (ii) cost-effectiveness;
- (iii) improved reliability;
- (iv) security;
- (v) system performance; and
- (vi) societal benefit.

(B) Rate recovery

Each State shall consider authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system.

(C) Obsolete equipment

Each State shall consider authorizing any electric utility or other party of the State to deploy a qualified smart grid system to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system, based on the remaining depreciable life of the obsolete equipment.

22. Xcel discussed its SmartGridCity in Boulder and noted a number of possible benefits from a smart grid. Ex. 8 at 14-15. However, it stated it is too soon to predict how and where it will implement smart grid technology. *Id.* at 15.

23. OTP believed that smart grid investments can benefit utilities and customers through both operational and business improvements, such as outage management, meter reading, revenue protection, grid planning, demand response, and better management of distribution assets. Ex. 9 at 9. OTP stated that cost recovery is critical. *Id.* at 10. OTP believed that the Commission should not mandate investments in smart grid, especially given the large size of its service territories in Minnesota, North Dakota, and South Dakota. *Id.* at 9, 10.

24. BHP stated that “each utility must determine which technologies work for its unique

circumstances on a case by case basis.” Ex. 4 at 15-16. It noted that it is currently in the process of developing a business case for advanced metering infrastructure (AMI) in its South Dakota territory. *Id.* at 16. BHP advocated the use of accelerated depreciation for legacy metering equipment replaced by AMI. *Id.* at 19.

25. MidAmerican expressed concern with how this standard is written. It noted the lack of definitions for the terminology used such as “nonadvanced grid technologies,” and further noted that the standard appeared to require justification and preapproval by the Commission for all grid investments, no matter the size. Ex. 6 at 23-24. MidAmerican emphasized the need for “recovery of both the cost of smart grid equipment and any related costs for obsolescence in order to help eliminate utility barriers to cost-effective investment in smart grid technologies.” *Id.* at 24. To further the implementation of smart grid systems, MidAmerican recommended the use of incentives rather than mandates. *Id.* at 24-25.

26. MDU asserted that any adoption of smart grid standards would be premature. Ex. 5 at 7. It stated that Smart Grid Technical Standards are still being developed. *Id.* MDU suggested that the Commission consider the deployment of smart grid technologies on a case-by-case basis. *Id.*

27. NorthWestern believes that smart grid technology “should provide increased customer value through increased system reliability, stabilizing operating costs, increasing utility asset performance, or improving customer service.” Ex. 7 at 11. NorthWestern plans to implement a smart metering pilot project in the Lake Andes area in 2009. *Id.* at 12. NorthWestern asserted that investments made obsolete by new technology should be recovered in rates. *Id.* at 14.

28. Commission Staff noted that a number of the utilities are already conducting pilot projects to test smart grid technology. Ex. 3 at 9. Staff further noted technology standards are still being developed which indicates that the technology itself is still in the emerging stage. *Id.* The use of emerging technology could lead to rapid obsolescence and interoperability concerns. *Id.* Staff cited to the rural nature of the utilities’ service areas in South Dakota which lead to higher implementation costs. *Id.* Staff recommended deferring consideration of smart grid technology until: (1) the technology is more developed; (2) costs are better developed allowing for better decisions; (3) the smart grid technology standards are developed; and (4) the results of the Black Hills Power and Xcel Energy pilot projects are available. *Id.* at 10.

29. As acknowledged by the parties, smart grid technology has the potential to provide numerous benefits to a utility’s customers, the utility, and the electric grid as a whole. Some of these benefits may include reductions in peak demand and energy consumption through the use of real-time pricing, deferral of spending for distribution and transmission facilities, improvement of reliability, faster restoration of service during outages, and improvement of overall system performance.

30. Although smart grid technology can provide significant benefits, these benefits come at a significant cost. The costs to individual consumers are even greater in more rural, less densely populated areas such as South Dakota. It is apparent that the utilities are investigating the use of smart grid technology in the areas they serve in South Dakota. The use of pilot programs will allow the utilities to evaluate the effectiveness of the technology as well as the costs. In addition, some of the parties noted that the technology and the standards associated with smart grid technology are still evolving. The evolving nature of the technology and standards give rise to concerns about making significant infrastructure investments now that may not turn out to be the most cost-effective in the long run. The Commission further notes that the standard appears to require a utility to come to the Commission to demonstrate in advance the prudence of each and every investment in traditional grid technologies, a requirement that could prove costly and burdensome.

Consistent with these concerns, the Commission will not adopt the standard as written. Instead, it will impose a much less burdensome requirement and monitor the utilities' implementation and consideration of smart grid investments by requiring an annual report. The report shall set forth smart grid deployment opportunities, why or why not deployment was made, the extent of the deployment, possible deployments that could be made in the forthcoming year, and what considerations will determine whether or not smart grid applications will be deployed, including costs and potential cost savings of deployment. The first report is due December 31, 2010 and the last report is due December 31, 2012. Following the filing of the last report, the Commission shall consider whether any further reports shall be required.

31. Consistent with these findings, the Commission adopts the following modified standard:

Each electric utility shall file an annual report with the Commission that sets forth smart grid deployment opportunities, why or why not deployment was made, the extent of the deployment, possible deployments that could be made in the forthcoming year, and what considerations will determine whether or not smart grid applications will be deployed, including costs and potential cost savings of deployment. The first report is due December 31, 2010 and the last report is due December 31, 2012.

Smart Grid Information

32. The final standard concerns providing information to electricity purchasers regarding usage and electricity prices. The standard reads as follows:

(A) Standard

All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider as provided in subparagraph (B).

(B) Information

Information provided under this section, to the extent practicable, shall include:

- (i) Prices Purchasers and other interested persons shall be provided with information on—
 - (I) time-based electricity prices in the wholesale electricity market; and
 - (II) time-based electricity retail prices or rates that are available to the purchasers.
- (ii) Usage Purchasers shall be provided with the number of electricity units, expressed in kwh, purchased by them.
- (iii) Intervals and projections Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information, where available, and shall include a day-ahead projection of such price information to the extent available.
- (iv) Sources Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

(C) Access

Purchasers shall be able to access their own information at any time through the Internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.

33. None of the parties recommended adoption of this standard. The primary reason being that until smart grid technology is deployed, much of the information required under this standard would not be available. Further, MidAmerican asserted that it is not clear that the cost of providing such information would be less than the benefit received by customers and noted that the standard does not take into consideration the costs or the benefits of providing customers with specific information. Ex. 6 at 26.

34. The Commission declines to adopt this standard. This standard is closely related to the smart grid investment standard. Given that the Commission has decided against adopting the smart grid investment standard, and has instead instituted a reporting requirement, it would make little sense to adopt this standard. Much of the information that would be required by this standard would not be available without a smart grid. Therefore, the Commission finds that until such time as the utilities have implemented smart grid technology, it would be premature to adopt this standard.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over this matter pursuant to SDCL chapter 49-34A, specifically 49-34A-93 and the EISA.

2. Pursuant to the EISA, the Commission was required to consider four new federal PURPA standards for state commissions and utilities to consider. The standards are: (1) Integrated Resource Planning; (2) Rate Design Modification to Promote Energy Efficiency Investments; (3) Consideration of Smart Grid Investments; and (4) Smart Grid Information.

3. The Commission must consider these standards in light of the PURPA goals of encouraging the conservation of energy supplied by electric utilities, achieving optimal efficiencies of electric utility facilities and resources, and setting equitable rates for electric consumers.

4. The Commission finds that the adoption of the following modified standard regarding resource planning is consistent with the PURPA goals:

Each electric utility shall—

- (A) integrate cost-effective energy efficiency resources into the plans and planning processes of the electric utility; and
- (B) adopt policies establishing cost-effective energy efficiency as a priority resource; and
- (C) file IRPs that are filed with other state regulatory agencies when those IRPs may affect South Dakota power supply and rates; or if no IRPs are required to be filed in other states, file any IRPs prepared for South Dakota power supply planning purposes.

5. The Commission finds that the adoption of the following modified standard regarding rate design to promote energy efficiency is consistent with the PURPA goals:

The rates allowed to be charged by any electric utility may —

- (i) align utility incentives with the delivery of cost-effective energy efficiency; and

(ii) promote cost-effective energy efficiency investments.

6. The Commission finds that the adoption of the following modified standard regarding consideration of smart grid investment is consistent with the PURPA goals:

Each electric utility shall file an annual report with the Commission that sets forth smart grid deployment opportunities, why or why not deployment was made, the extent of the deployment, possible deployments that could be made in the forthcoming year, and what considerations will determine whether or not smart grid applications will be deployed, including costs and potential cost savings of deployment. The first report is due December 31, 2010 and the last report is due December 31, 2012.

7. The Commission declines to adopt the standard regarding smart grid information. The Commission finds that adoption of the standard would be premature given that the utilities are at the beginning stages of testing and implementing smart grid technology.

It is therefore

ORDERED, the Commission adopts modified versions of the Integrated Resource Planning standard; the Rate Design Modifications to Promote Energy Efficiency Investments standard; and the Consideration of Smart Grid Investments standard as set forth above; and it is

FURTHER ORDERED, the Commission does not adopt the Smart Grid Information standard.

Dated at Pierre, South Dakota, this 18th day of December, 2009.

CERTIFICATE OF SERVICE
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.
By: <u><i>Amia G. [Signature]</i></u>
Date: <u>12-18-09</u>
(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Dustin M. Johnson
DUSTIN M. JOHNSON, Chairman *Ag*
(Dissenting in part)

Steve Kolbeck
STEVE KOLBECK, Commissioner

Gary Hanson
GARY HANSON, Commissioner