

**OKLAHOMA ELECTRIC COOPERATIVE
NORMAN, OKLAHOMA**

**FINAL DETERMINATION FOR IMPLEMENTING PURPA RATEMAKING STANDARDS RELATING TO
INTEGRATED ENERGY EFFICIENCY RESOURCE PLANNING, RATE DESIGN MODIFICATIONS TO
PROMOTE ENERGY EFFICIENCY INVESTMENTS, CONSIDERATION OF SMART GRID
INVESTMENTS, AND SMART GRID INFORMATION**

The Board of Directors of Oklahoma Electric Cooperative (OEC or the Cooperative) adopts four new policies to address: 1) integrating energy efficiency resources into resource planning and making cost-effective energy efficiency a priority resource; 2) modifying rate designs to promote energy efficiency investments; 3) assessing investments in smart grid technologies before investing in non-advanced technologies; and 4) making smart grid information available to members. These policies will implement modified versions of the four new ratemaking standards. Federal law requires the Cooperative to consider such implementation pursuant to the Public Utility Regulatory Policies Act of 1978 (PURPA), as amended by the Energy Independence and Security Act of 2007 (EISA), 16 U.S.C. § 2621(d)(16), (17), (18) and (19); and Public Law No. 110-140, 121 Stat. 1492 (2007) (hereinafter, PURPA EISA).¹

The Public Utility Regulatory Policies Act, as amended, requires OEC to consider the EISA Standards and determine whether to implement them at the Cooperative. In making this determination, OEC examined the effect that implementing the standards would have on members, and examined whether implementing the standards would fulfill one or more of PURPA's three purposes, specifically, to encourage: a) conservation of energy supplied by the cooperative, b) optimal efficiency of Cooperative facilities and resources, and c) equitable rates for Cooperative members (the PURPA purposes). Cooperatives may decline to implement one or more of the standards if it is determined that implementation would not be in the best interest of its members, even if implementation would fulfill one or more of the PURPA purposes.

¹ Due to a drafting error, PURPA EISA 2007 contained two standards assigned the number 16 and two standards assigned number 17. In the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §408, Congress corrected those errors by re-designating PURPA EISA Standard 16, relating to consideration of smart grid investments, as Standard 18, and re-designating PURPA EISA Standard 17, relating to consideration of smart grid information, as Standard 19. The style of this proceeding will not be changed because notice has already been given, but the corrections have been made in the body of this determination.

PUBLIC HEARING

A proposed determination was prepared on behalf of the Cooperative staff. The proposed determination was provided to members and the general public and written comments were requested. No comments were received.

1. PURPA EISA STANDARD 16 – INTEGRATED RESOURCE PLANNING

Under PURPA EISA Standard 16,² the Cooperative must decide whether to: a) integrate energy efficiency resources into its integrated resource planning, and b) adopt policies establishing cost-effective energy efficiency as a priority resource. The term “integrated resource planning” generally refers to a comprehensive planning process intended to systematically consider appropriate supply and demand resources to meet current and future load requirements within the context of the Cooperative’s policy goals and objectives.³ The term “energy efficiency” refers to efforts that allow consumers to use less energy without changing their behavior or efforts that replace existing energy-consuming devices with newer models that consume less energy.

Regarding the integration of energy efficiency resources into the Cooperative’s integrated resource planning, OEC is a distribution cooperative and neither owns nor operates any generation facilities. Instead, the Cooperative purchases all of its power from Western Farmers Electric Cooperative (WFEC). Therefore, OEC does not directly conduct resource planning. By contract, WFEC is responsible for providing OEC’s resource needs and for performing all related planning. WFEC is a generation and

² The Standard states: (16) INTEGRATED RESOURCE PLANNING.—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. 16 U.S.C. § 2621(d)(16), 121 Stat. 1665.

³ PURPA defines integrated resource planning as a planning and selection process for new energy resources that evaluates the full range of alternatives, including new generating capacity, power purchases, energy conservation and efficiency, cogeneration and district heating and cooling applications, and renewable energy resources in order to provide adequate and reliable service to electric customers at the lowest system cost. PURPA requires that the process take into account necessary features for system operation, such as diversity, reliability, dispatchability, and other risk factors; consider the ability to verify energy savings achieved through energy conservation and efficiency and the projected durability of such savings measured over time; and treat demand and supply resources on a consistent and integrated basis.

transmission cooperative formed to serve OEC and eighteen other Oklahoma based distribution cooperatives. WFEC serves no retail load directly, therefore, its resource planning consists of the sum of the resource needs of each of its member-cooperatives.

The Cooperative participates in WFEC's power requirements forecasts. These forecasts are used to determine each distribution cooperative's current and future capacity and energy needs, and examine all aspects of projected future needs, including the regional economy, customer growth, business cycles, and other relevant information. Therefore, although OEC does not directly control its own resource planning, its energy efficiency measures and programs are included in WFEC's resource planning and are very much a part of moderating WFEC's future resource requirements.

WFEC also provides a pricing signal to OEC through its wholesale rates to indicate when the Cooperative can improve its energy efficiency and conservation efforts. The wholesale rate OEC and other member-cooperatives pay to WFEC includes a capacity or demand charge intended to recover generation capacity and transmission service costs, along with energy charges. WFEC demand readings used for demand billing are measured within a particular peak window of time. That window occurs between mid-June and mid-September, during late afternoon/early evening hours. The distribution cooperative demand measured at the times of or coincident with the WFEC three highest peak periods within those peak windows each year are averaged with usage occurring during peak periods over the prior four years to develop a coincident peak billing demand. This demand is then billed to OEC and other member-cooperatives by WFEC each month of the following year. OEC is provided, therefore, with a strong wholesale pricing signal to (a) improve its load factor (the relationship between actual consumption and peak consumption) as a method of increasing energy efficiency and lowering average power cost per kWh, and (b) curtail, eliminate and/or shift usage within the peak windows over time as a method of lowering demand charges and average power cost per kWh.

WFEC also offers a curtailable rate that member-cooperatives may offer to distribution cooperative industrial members. This rate provides savings for members who can curtail or reduce usage when requested to do so by WFEC. OEC serves retail members under this rate.

Regarding the adoption of policies that establish cost-effective energy efficiency as a priority resource, OEC does not currently have specific energy efficiency objectives. However, the Cooperative funds and has implemented a number of projects and programs with the specific goal of improving energy efficiency and conservation. OEC currently offers or participates in direct assistance and informational programs specifically designed to improve energy efficiency and conservation. The direct assistance programs include:

1. Offering guidance on do-it-yourself home energy audits from a “Home Energy Saver” website;
2. Offering “Usage Monitoring,” a service that members can use to track their consumption on the internet to see how much electricity they used on the previous day. Members can also receive an email alert when their daily usage exceeds a given amount of kWhs or a daily email that tells them how much electricity was used on the previous day. This service is offered to monthly-billed and pre-paid metering members.
3. Offering rebates to members installing energy efficient air-to-air heat pumps, ground-loop heat pumps and water heaters;
4. Offering a “Distributed Generation” webpage for members interested in small scale generation designed to lower energy consumption from the grid. The “OEC Distributed Generation Procedure and Guideline Manual” can be accessed from this location.
5. Considering transitioning its outdoor security lighting to higher efficiency fixtures;
6. Participating as a member of the National Rural Electric Cooperative Association (NRECA). NRECA’s research arm, Cooperative Research Network (CRN), has a wide variety of programs in the areas of energy efficiency and demand response, information management and telecommunications, and renewable and distributed energy.
7. Installing higher efficiency distribution transformers on its distribution system as replacement is required; and
8. Reviewing annually its electric distribution projects which include voltage conversion projects and reconductoring projects intended to reduce line losses and increase operational efficiency.

OEC continually considers new and revised energy efficiency programs. Currently, OEC supports and promotes the EnergyStar appliance and building program; provides information to members about appliance usage and energy savings; and informs members and the public about the importance of improving energy efficiency through its participation in Touchstone Energy. The Cooperative also

educates members about energy efficiency by providing information through its newsletter, press releases, website, personal contact with employees, and member feed-back and information request options.

OEC's direct assistance and informational programs are factored in to WFEC's power requirements study, which has the effect of reducing OEC's future energy and capacity requirements. When combined with similar studies from other WFEC member-cooperatives, WFEC will see an over-all reduction in future capacity or energy requirement needs. WFEC encourages its member-cooperatives to adopt energy efficiency programs and provides a pricing signal to encourage reduction in energy requirements.

OEC and its members benefit from all of the programs discussed above in three ways. First, as OEC's energy efficiency programs mitigate WFEC's need for future increased capacity, OEC members will see reductions in future purchased power costs related to additional capacity. Second, as OEC continues to promote energy efficiency, OEC members will pay lower power costs. Third, Cooperative members will benefit from any accompanying environmental improvements.

At present, OEC personnel provide the programs to Cooperative members. Program costs were included in the Cooperative's expenses when the most recent rates were developed and are being recovered from members under existing rates. It should be noted, however, that any resulting decrease in the cost of purchased power or the average cost per kWh of purchased power, does not increase the Cooperative's margins. The cost of purchased power is passed directly to members through OEC's power cost adjustment (PCA). Therefore, the cost of any future energy efficiency programs adopted by the Cooperative will NOT be recovered from members through rates until the Cooperative again revises its retail rate structure.

Including OEC's energy efficiency programs in WFEC's resource planning encourages the conservation of energy supplied by the Cooperative and the optimal use of the Cooperative's facilities and resources, which are two of PURPA's goals. Implementing a modified version of the integrated resource planning standard alongside OEC's existing energy efficiency programs will further encourage those two purposes.

OEC has promoted energy efficiency for many years and will continue to do so through existing programs, including its goal of reducing the growth of capacity needs. The Cooperative will also consider new programs, but will weigh their costs against the potential benefits to members and potential reduction in Cooperative margins. For the reasons discussed above, the Cooperative board implements a modified version of PURPA EISA Standard 16 through the following board policy:

Board Policy on Integrated Resource Planning

Oklahoma Electric Cooperative will cooperate with its power supplier so that its power supplier can continue to integrate energy efficiency resources into its resource plans, and will adopt policies establishing cost-effective energy efficiency as a priority resource.

OEC has existing procedures to implement this policy. First, OEC will adopt a menu of programs designed to improve energy efficiency. Second, the policy will include those programs as a part of the Cooperative's load forecast. Third, the plan will provide that forecast to its power supplier so that, when coupled with similar forecasts from other member-cooperatives, WFEC's capacity needs are mitigated.

2. PURPA EISA STANDARD 17 – RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS

Under PURPA EISA Standard 17,⁴ OEC must decide whether the rates it charges will align utility incentives with the delivery of cost-effective energy efficiency and will promote energy efficiency investments. In making that decision, the Cooperative must consider six policy options. They are:

⁴ The Standard states: (17) RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS. —
(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 non-regulated 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 one 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.
16 U.S.C. § 2621(d)(17), 121 Stat. 1666.

1. Remove the throughput incentive and other regulatory and management disincentives to energy efficiency;
2. Provide utility incentives for the successful management of energy efficiency programs;
3. Include the impact of adoption of energy efficiency as one of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;
4. Adopt rate designs that encourage energy efficiency for each member class;
5. Allow timely recovery of energy efficiency related costs; and
6. Offer home energy audits, offer demand response programs, publicize the financial and environmental benefits associated with making home energy efficiency improvements, and educate homeowners about all existing federal and state incentives, including the availability of low-cost loans that make energy efficiency improvements more affordable.

As a distribution cooperative, OEC encounters special challenges when considering rate design to promote energy efficiency in general. OEC does not own or operate generation resources. Therefore, OEC's costs for generation and wholesale delivery of power are not the actual direct costs of building and operating power plants and transmission facilities. Rather, OEC's power supply costs result from the wholesale power billing it receives from WFEC. OEC must respond to the pricing signal WFEC provides in its wholesale rates.

WFEC provides a strong pricing signal to member-cooperatives to implement demand response programs such as load management, peak shaving, etc. OEC has responded to that pricing signal and offers optional rates, including Time-Of-Peak, Large Power Unbundled, and Installed Generation Capacity. These rates offer potentially significant savings to qualifying members for reducing peak capacity during peak periods coincident with WFEC's peak. Should WFEC ever revise the structure of its wholesale rates, OEC should reconsider its retail rate structures.

Regarding the alignment of utility incentives with the delivery of cost-effective energy efficiency, for many years the primary design objective in the Cooperative's tariffs has been the recovery of the costs of providing service to each rate class. Rates have generally been designed to reflect the wholesale demand and energy costs while recovering the distribution demand and customer-related costs

necessary to provide service. The design of electric rates based on the cost of providing service normally promotes the use of energy in an efficient manner since rates tend to be in line with how costs are incurred. For example, the Large Power rate is a demand design that provides a price signal which promotes the improvement of load factor. Improved load factor leads to a more efficient use of energy resources.

Regarding the establishment of rates that promote energy efficiency investments, certain provisions of the Cooperative's tariffs do not promote energy efficiency initiatives and investments. OEC's residential member class represents the majority of the load on the Cooperative's system. Effective energy efficiency programs would have to include this member class. Only a portion of the fixed distribution costs of providing service is recovered in the member charge component of the residential rate. Costs not recovered in the member charge are instead recovered in the energy component of the rate. This creates a disincentive with respect to the Cooperative's promotion and participation in energy efficiency or conservation programs, which by their nature are intended to reduce the amount of energy sold. As energy efficiency and conservation efforts reduce the number of kWhs sold, OEC's ability to recover costs is reduced and its margins are then also reduced. A good example of this result is the distribution of Compact Florescent Light (CFLs) bulbs.

Replacing standard incandescent light bulbs with CFLs directly reduces the amount of energy consumed. When consumption goes down, the Cooperative's purchased power energy costs are reduced. But the Cooperative is billed by WFEC for both demand and energy charges, and members reducing kWh sales are unlikely to reduce wholesale demand charges at the same pace that energy charges are reduced. This means that the member reducing his or her usage by installing CFLs will receive savings equal to the full demand cost plus the full energy cost which are combined or bundled in existing energy charges, while the Cooperative can only count on a reduction in power cost equal to the wholesale energy charges. This results in a reduction in margins for OEC.

Since CFLs do nothing to reduce the Cooperative's cost of providing its own distribution service, and since CFLs are unlikely to result in a full reduction of wholesale demand costs, as the member installs CFLs to reduce his or her retail billing, the result is a reduction in energy usage. The Cooperative's distribution costs of providing service and wholesale demand costs are not, however,

affected by the use of CFLs. Therefore, the only real cost reduction associated with the promotion of CFLs is the reduction in wholesale energy costs. In short, the use of CFLs results in a loss of revenue from the reduction in kWh sold. The decrease in revenue is greater than the decrease in cost; therefore, the Cooperative's margins go down.

Notwithstanding this negative impact on the Cooperative's margins, CFLs are promoted because they reduce the amount of energy consumed, and therefore reduce the amount of fossil fuels needed to generate power. An energy efficiency benefit is realized at the wholesale generation level even though there is a cost issue at the distribution level. To eliminate the disincentives to energy efficiency and conservation, the main change OEC could make to its rate structure would be to increase the member charge or the demand charge component of its retail rate. As the member or demand charge is increased, less of the distribution cost recovery is dependent on the sale of energy. This would have the effect of reducing the disincentive of promoting energy efficiency. As the fixed cost component becomes a larger component of the rate, energy efficiency and conservation efforts would have a smaller impact on the Cooperative's margins.

Regarding Policy Option 1, a throughput incentive is a member disincentive to energy efficiency and conservation. An example of a throughput incentive can be a declining block energy rate, which provides a lower energy charge for consumption over a certain level. Declining block rates may be interpreted as encouraging increased energy consumption. A number of OEC's existing rates include declining blocks.

While the Cooperative will review its existing declining block rates at the time of its next cost of service study and rate design procedure, it should be noted that its existing rates were not primarily designed to promote energy use. OEC residential rates include declining blocks only in winter months, resulting in higher average cost per kWh in summer months than in winter months and reflecting the wholesale rate which places a premium on reducing summer consumption. In addition, one purpose of a declining block rate is to recover in early energy blocks, the portion of the member-related cost of providing service not recovered through the member charge. The Cooperative must consider, along with the importance of promoting energy efficiency and conservation, the equal importance of minimizing the impact on existing members involved with major restructuring of retail rate structures.

OEC does not face any regulatory or management disincentives to energy efficiency. The Cooperative has included the cost of current energy efficiency programs in its existing rate structures.

Regarding Policy Option 2, the Cooperative has in place incentive programs such as rebates and energy audits to encourage members to install energy efficient appliances. The Cooperative does not provide itself with incentives to manage energy efficiency programs.

Regarding Policy Option 3, the primary impact of adopting energy efficiency as one of the goals of rate design is in the structure of the rate design itself. Promoting energy efficiency requires that the Cooperative consider increasing the fixed component of the rates and removing any throughput incentives. Adopting energy efficiency as a priority requires that a high degree of attention be placed on rate design to ensure that the Cooperative's margins are not adversely affected. This was the case in the Cooperative's most recent rate design and cost of service study.

Regarding Policy Option 4, OEC's existing rates provide a pricing signal to members indicating that reductions in energy usage result in decreased monthly billing. In fact, since the Cooperative recovers a portion of its distribution wires cost of providing service through energy charges for many of its rate classes, it is actually providing members a stronger pricing signal to promote conservation than is justified, based strictly on passing through reductions in power cost.

Regarding Policy Option 5, any costs incurred for energy efficiency programs or investments should be recoverable from the appropriate rate class. The Cooperative will carefully consider the costs of implementing and operating energy efficiency programs in comparison to the benefits that are produced by such programs before recovering the costs from the Cooperative's rate classes.

Regarding Policy Option 6, OEC has several programs that promote energy efficiency. OEC continues to consider other programs as part of its on-going energy efficiency efforts.

Adopting a modified version of this standard will promote the conservation of energy by removing disincentives to energy efficiency in the rate design. Removing disincentives also encourages

the optimal efficiency of the Cooperative's facilities and resources. Recovering energy efficiency costs from the appropriate members and increasing the member component of the retail rates will promote equity in the rate design.

For the reasons discussed above, the OEC board will implement a modified version of PURPA EISA Standard 17 through the following policy:

**Board Policy on Rate Design Modifications to Promote
Energy Efficiency Investments**

Oklahoma Electric Cooperative's retail rates will, in general, align utility incentives with the delivery of cost-effective energy efficiency and promote energy efficiency investments.

To accomplish that general approach, OEC will consider:

- (i) removing any throughput incentive and other regulatory and management disincentives to energy efficiency;
- (ii) providing incentives for the successful management of energy efficiency programs;
- (iii) including the impact on adoption of energy efficiency as one 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 member 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.

To implement this standard, the Cooperative will continue its existing practice of considering the advantages of aligning utility incentives with promoting energy efficiency improvements and increased conservation through its retail rate designs and other programs.

3. PURPA EISA STANDARD 18 – CONSIDERATION OF SMART GRID INVESTMENTS STANDARD

Under PURPA EISA Standard 18,⁵ each State must consider whether to require a regulated electric utility to demonstrate that it has considered an investment in a qualified smart grid system before investing in non-advanced grid technologies. Although this standard is not specifically directed to non-regulated utilities, and OEC cannot direct state action or implement this standard for other utilities, the Cooperative nonetheless decided to consider similar investment strategies because the factors in the standard are prudent and applicable to its business.

The Smart Grid Investments Standard identifies factors OEC considers prudent and relevant to grid investment decisions. OEC currently uses smart grid technologies by the deployment of:

- a. Advanced Metering Infrastructure (AMI) using TWACS^R;
- b. A SCADA system that monitors amps, voltages, controls all substation reclosers, and monitors and controls a few downstream (in the field) reclosers; and
- c. “Usage Monitoring” as described previously.

For the reasons discussed above, the OEC board implements a modified version of PURPA EISA Standard 18 through the following policy:

Board Policy for Consideration of Smart Grid Investments

Prior to undertaking investments in non-advanced grid technologies, Oklahoma Electric Cooperative (OEC) will generally consider 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 benefits.

⁵ This Standard states: (18) CONSIDERATION OF SMART GRID INVESTMENTS.—

(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. 16 U.S.C. § 2621(d)(18), 121 Stat. 1791.

Rate Recovery. OEC will consider the factors listed above to recover from members any capital, operating expenditure, or other costs of OEC related to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of OEC for the deployment of the qualified smart grid system.

Obsolete Equipment. OEC will consider deploying 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.

The Cooperative has existing procedures in place to implement this standard. OEC will continue to consider the advantages and costs associated with smart grid technology before making investments and will deploy smart grid technology, where appropriate.

4. PURPA EISA STANDARD 19 – CONSIDERATION OF SMART GRID INFORMATION STANDARD

Under PURPA EISA Standard 19,⁶ the Cooperative must decide whether to provide its members with direct access, in written or electronic machine-readable form as appropriate, to information from the Cooperative that includes:

- a. Time-based electricity prices in the wholesale electricity market and time-based electricity retail prices or rates that are available to the purchasers (Prices);
- b. The number of electricity units, expressed in kWh, purchased by them (Usage);

⁶ The Standard states: (19) SMART GRID INFORMATION.—

(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. 16 U.S.C. § 2621(d)(19), 121 Stat. 1792.

- c. Updates of information on prices and usage offered on not less than a daily basis, including hourly price and use information, where available, and a day-ahead projection of such price information to the extent available (Intervals and Projections);
- d. Written information annually to both members and interested persons 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 (Sources); and
- e. Access to a member's own information at any time through the Internet and on other means of communication elected by the Cooperative for Smart Grid applications;
- f. Access by other interested persons to information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.

Implementing the Smart Grid Information Standard would require OEC to make available to its members information concerning energy rates, members' energy usage, sources of power, and other energy-related information. This information would be readily available to members, enabling them to evaluate energy conservation practices.

OEC currently provides the following information to its members:

- Monthly kWh usage data and 13-month usage data for each metered location printed on the customer's monthly bill.
- "Usage Monitoring" as mentioned previously.
- Description of the generation mix in written format to members through the Cooperative new publication on an annual basis.

OEC faces challenges in providing this type of information to its members. As a distribution cooperative, OEC's cost of power supply capacity and energy is determined, not by cost of service, but indirectly through the wholesale rate structure. The Cooperative's ability to provide the information identified in this standard is, therefore, limited by its ability to readily obtain such data from its power supplier or the extent to which the wholesale power rate provides correct pricing information. Since WFEC's wholesale rate is not hourly or real-time based, the Cooperative's ability to provide such information to members is limited. As WFEC provides this information to OEC in the future or restructures its wholesale rate to provide such a pricing signal, additional information can be provided

to members. Information provided by WFEC to OEC about the greenhouse gas emissions associated with each type of generation for the purpose of dissemination to the public will be provided to members.

Technology exists to permit OEC to provide its members with additional information. However, the Cooperative must weigh the potential advantages of such technology against the potential costs to its members. Moving to more advanced technology, such as home digital displays installed in all homes or computer interface access in all homes, adds additional costs and raises a number of cyber security issues. In addition to personnel and installation costs, operation and maintenance upkeep and other costs, some potential technology is prohibitively expensive for any rural electric cooperative. Nevertheless, as discussed in other sections, OEC has begun to install technology where appropriate and will continue to review the advantages of installing such technology.

For the reasons discussed above, the OEC board implements a modified version of the Smart Grid Information Standard through the following policy:

Board Policy for Smart Grid Information

Oklahoma Electric Cooperative will provide to its members direct access, in written or electronic machine-readable format as appropriate, the following information to the extent practicable and applicable to the member:

Prices. Members and other interested persons will be provided, to the extent practicable and applicable, with information on time-based electricity prices in the wholesale electricity market, and time-based electricity retail prices or rates that are available to the purchasers.

Usage. Members will be provided, to the extent practicable and applicable to the member, with the number of electricity units, expressed in kWh, purchased by them.

Intervals and Projections. Updates of information on prices and usage will be offered, to the extent practicable and applicable to the member, on not less than a daily basis; will include hourly price and use information, where available; and will include a day-ahead projection of such price information to the extent available.

Sources. Members and other interested persons will be provided annually, to the extent practicable and applicable, 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.

Access. Members will be able to access, to the extent practicable and applicable to the member, their own information at any time through the Internet and by other means of communication elected by the Cooperative for Smart Grid applications. Other interested persons will be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser will be provided solely to that purchaser.

Modifying the standard in this way is important because residential members are currently billed on an energy rate that does not vary by time of day. This means that giving members hourly information on pricing will not currently assist them in making conservation decisions.

Should WFEC move to wholesale rates that reflect more discrete daily or “real time” information, OEC could in turn develop retail rates that would also be real-time-based. Then, OEC would provide information to members to allow them to take full and effective advantage of any retail rates so developed. Until real-time-based wholesale and retail rates are available, providing time-based information to members would not be useful. Moreover, the schedule for deploying technology will dictate the availability of the information. As OEC continues to deploy technology which collects information that would assist the members’ conservation efforts, and as the Cooperative develops the interface technology to allow members to access that data, such information will be made available to the extent practicable.

The Cooperative will continue to consider as a part of its cost of service and rate design process, offering time-of-use rates to members based on existing wholesale rates. In making this determination, OEC will weigh the potential advantages of such rate designs in encouraging energy efficiency and conservation against the cost to be borne by all members for implementing such a program and general member impact issues.

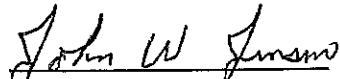
To implement this modified standard, OEC will continue to provide existing information to members. As additional information is available from the Cooperative’s power supplier—that is, as wholesale and retail rates are developed that would allow members to take advantage of real-time-based rates, and when such information can be provided on a cost-effective basis—OEC will provide such information to members so they can take full advantage of those rates.

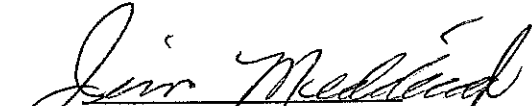
CONCLUSION

The Cooperative has exclusive jurisdiction and authority to consider the PURPA EISA standards and implement policies or tariffs appropriate for the Cooperative's members.

ISSUED IN NORMAN, OKLAHOMA ON THE 22nd DAY OF DECEMBER 2009

BY OKLAHOMA ELECTRIC COOPERATIVE


PRESIDENT-John W. Jensen


SECRETARY-C.E. "Jim" Middelkauff