PROJECT NO. 2008-TX164-0001

PROCEEDING TO CONSIDER AND DETERMINE WHETHER TO IMPLEMENT THE FEDERAL RATEMAKING STANDARDS FOR INTEGRATED RESOURCE PLANNING, RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS, CONSIDERATION OF SMART GRID INVESTMENTS, AND SMART GRID INFORMATION PURSUANT TO 16 U.S.C. §2621(D)(16), (17), (16) AND (17) AS AMENDED BY PUB. L. NO. 110-140, 121 STAT. 1492 (2007).	§	UNITED ELECTRIC COOPERATIVE SERVICES, INC. JOHNSON COUNTY, TEXAS

(STAFF RECOMMENDATION)

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

United Electric Cooperative Services, Inc. (United or Cooperative) proposes 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 proposed policies implement modified versions of the four new ratemaking standards federal law requires the Cooperative to consider 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), (16) and (17), Public Law No. 110-140, 121 Stat. 1492 (2007) (hereinafter, PURPA EISA).

Cooperative Staff will conduct a public hearing on this proposal on April 9, 2009, at 11:00 a.m. at the Cooperative Headquarters located at 3309 N. Main Street, Cleburne, Texas. Written comments on the proposal should be sent to Cameron Smallwood, at P.O. Box 16, Cleburne, TX, 76033 no later than April 7, 2009.

1. INTEGRATED RESOURCE PLANNING

Under First PURPA ElSA Standard 16,[1] the Cooperative must decide whether to: 1) integrate energy efficiency resources into its integrated resource planning; and 2) 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.[2] The term "energy efficiency" refers to efforts that allow consumers to use less energy without changing their behavior or that replace existing energy-consuming devices with newer models that consume less energy.

United is an electric distribution cooperative that owns no generation or transmission assets. The Cooperative is an all-power-requirements member of Brazos Electric Power Cooperative, Inc. (Brazos), a generation and transmission cooperative based in Waco, Texas. United relies completely on Brazos and its coordination with the Electric Reliability Council of Texas (ERCOT) to determine, plan, construct, schedule, operate and maintain its power supply and transmission portfolio.

United has no direct responsibility for integrated resource planning or for determining the cost effectiveness or priority of energy efficiency with respect to Brazos' integrated resource planning process. However, Brazos has implemented a Load Curtailment Program in which United participates. This program permits qualifying United members to sign up to make available load shedding capacity on a thirty minute notice. The member receives a payment from Brazos through United based upon the member's curtailment performance at the time of the notice. Brazos has been involved in the program for two years and will continue to make this program available to its members who qualify. Brazos includes these curtailable loads in its resource planning.

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[1] 16 U.S.C. § 2621(d)(16), 121 Stat. 1665.

[2] 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.

United currently offers a number of direct assistance and educational programs to promote energy efficiency, which are discussed in detail under the second standard for rate design modifications to promote energy efficiency investments.

Although United's current practices meet the federal standards for integrated resource planning, the Cooperative proposes adopting the following modified standard:

Policy No. 1 for Integrated Resource Planning

United's staff recommends that United's management and Board of Directors continue to encourage energy efficiency as a priority resource through current and future methods available through Brazos (i.e. planning meetings, Board committee meetings, ad-hoc committees, etc.), while recognizing that United is only one of sixteen votes in Brazos and by itself cannot direct the priorities of its generation and transmission cooperative.

2. RATE DESIGN MODIFICATIONS TO PROMOTE ENERGY EFFICIENCY INVESTMENTS

Under First PURPA EISA Standard 17,[3] the Cooperative 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, which are:

1) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

2) providing utility incentives for the successful management of energy efficiency programs;

3) 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;

4) adopting rate designs that encourage energy efficiency for each customer class;

5) allowing timely recovery of energy efficiency related costs; and

[3] 16 U.S.C. § 2621(d)(17), 121 Stat. 1666.

6) 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.

United fully recognizes the importance of energy efficiency and demand response programs. Over the last several years, United has created, implemented, maintained, and grown a full communications and action plan supporting conservation, energy efficiency, demand side management and distributed resources.

EXISTING POLICIES

United created a Conservation of Energy Policy in September of 2000 and has updated the Policy several times since its inception (now called Policy 4100, Energy Innovation). The text of the latest revision of the Policy provides that:

POLICY NO. 4100

SUBJECT: ENERGY INNOVATION

I. OBJECTIVE

To establish policy concerning use of energy by the Cooperative and its members, particularly to effectiveness, efficiency and conservation of energy. This objective is consistent with the utility responsibilities of a full-service cooperative and its prime concern for members' needs.

II. POLICY

It shall be the policy of United Electric Cooperative Services, Inc. to fully support the four components of Energy Innovation, which focus on meeting future energy needs from different demand-side approaches, including:

A. Conservation - changing behavior to reduce energy use

B. Energy Efficiency - reducing energy use without changing behavior

C. Demand Response - shifting energy use to different times to reduce energy use during peak usage times

D. Distributed Resources - interconnecting generation on the distribution side rather than the supply side

United shall support Energy Innovation including but not limited to the following ways:

A. Examine its own use of energy. This includes but is not limited to plant engineering design and construction, lighting and climate control and use of vehicles.

B. Develop and carry out a system wide program of energy management, including energy conservation, adequate home insulation, weatherization, efficient irrigation and other farm uses, business uses, and effective and efficient use of energy in the home. Alternate energy sources will be appropriately considered.

C. Develop and carry out energy efficiency programs through literature, Web site information, media relations, community meetings and energy audits, so that information pertaining to energy management is accessible to the members, thus giving the membership an opportunity to learn how to meet their individual energy needs.

D. Develop and carry out an information and education program with major groups involved in housing, including the building industry, HVAC and insulation service providers and local government organizations and our members, to assure understanding and coordination in methods of energy management and weatherization techniques through a construction and equipment rebate program.

E. Examine opportunities and programs that utilize escheat monies to assist members in meeting Energy Innovation objectives.

F. Maximize the Co-op Connections Card program by creating Energy Innovation discounts for members at local HVAC, insulation, window and other weatherization dealers.

G. Develop training appropriate for all employees in full support of Energy Innovation

H. Work with the Cooperative's power supplier in implementing effective programs supporting Energy Innovation.

III. RESPONSIBILITY

It shall be the responsibility of the General Manager to develop work plans and budget recommendations to carry out this policy and to develop appropriate control reports to assess results.

A. Energy Innovation is an integral part of serving members' electrical needs.

B. Continue to develop/maintain a plan of work and budget to promote the effective use of energy by members.

United's Policy demonstrates the Cooperative's support for energy innovation both internally and externally. Further evidence of United's involvement in energy innovation is its related expenditures . In 2008, United invested approximately $740,000 to support of energy innovation efforts; budgets for 2009 include approximately $850,000 specifically for energy innovations efforts, a 14.8% increase from 2008.

The following is a description of specific programs offered to members of the Cooperative, by subset of energy innovation:

ENERGY EFFICIENCY AND CONSERVATION

This section briefly discusses the programs that have been implemented by United in support of energy efficiency.

Rebate programs. United has supported rebate programs for many years in various ways. The programs encourage members to install more efficient heating and air conditioning systems, to build more efficient homes and to install more efficient appliances. The programs have changed over the years to support different energy efficient practices. The 2009 rebate program includes rebates for attic insulation upgrades and energy efficiency HVAC installation and/or upgrades. In 2008, more than $96,000 was provided in rebates for these programs, which included 44 attic insulation upgrades, 3 geothermal installations, 229 high-seer heat pumps installations and 53 high-efficiency water heater installations.

EnergySmarts grants. In 2008, United began a program to offer grants for energy efficiency improvements through the EnergySmarts program, which provides grants to local schools to improve energy efficiency. In 2008, 11 school districts were awarded $46,300 to make improvements, including lighting, energy management system and HVAC improvements. In 2009, United has budgeted $100,000 to support extending the EnergySmarts Grant program to its residential members who have income levels less than 175% of the federal poverty limit to make energy efficiency improvements in their homes. Based on experience gained through United's energy audit program, the Cooperative expects many residential members will take advantage of this program in 2009.

Web site energy efficiency store. United teamed up with EFI (Energy Federation, Inc.) to provide access to a low-cost energy efficiency store through the Cooperative's web site. This store allows members to receive a discount on energy efficient products that are sold through EFI. Further, United has created a voucher program for members to receive $10 discounts on their purchases through the EFI web store. These vouchers were distributed to the 2008 annual meeting attendees and were given to members at each energy audit performed in 2008. United has budgeted $25,000 for energy efficiency store vouchers for 2008 through 2009.

Co-op Connections card. United has leveraged its membership in Touchstone Energy Cooperative to provide members with the Co-op Connections discount card. This program allows local vendors to sign up with the card and have free advertising to United's membership in exchange for providing discounts to Cooperative members. United focused the program on vendors that provide energy efficiency products and services in the local area. Therefore, the program has connected members to local

vendors that support energy efficiency practices by giving the membership discounts on services and products provided by these vendors.

CFL promotion. In 2007 and 2008, United gave away 8,600 compact florescent bulbs for residential use. If members fully replace incandescent bulbs in their homes, the program saves approximately 693,091 kWh annually (based on the assumption that each CFL replaced a standard 60 watt bulb at 20% load factor). United has supported this program at a cost of more than $16,000.

Energy efficiency kits. United purchased energy efficiency kits, including weather-stripping, CFLs, socket gaskets, and energy efficiency information. The kits were given out at the 2007 annual meeting of the membership and continue to be given to members regularly at energy audit locations.

Web site tools. United has several web site tools that allow members to determine how energy efficiency and conservation changes can affect their energy use. The Cooperative continues to implement new programs and links as they become available to support energy innovation. Further, United offers a commercial email service to its industrial/commercial members, which provides conservation and energy efficiency tips specific to those rate classes. Many members employ web site/email tools to implement conservation measures.

Web site information/audit: As discussed above, United's web site has many tools to assist members in the application of energy efficiency practices, including information regarding how to perform a self-audit and estimate the impact of energy efficiency improvements on a member's utility bill. The web site also includes energy efficiency and conservation libraries that detail products and practices for review and implementation by members. In addition, links on the web site provide members with information and resources regarding certain tax incentives that may be available to offset energy efficiency upgrades.

In the community. United continually plays a role in community education on energy efficiency and conservation through civic club speaking arrangements, specially arranged community meetings on the topic, and focus groups that bring community leaders together to discuss the issues. United has also

provided the Touchstone Energy Efficiency curriculum to several schools across its territory, which teaches children conservation and energy efficiency.

Outside the community. United continually supports energy innovation topics through its involvement in industry statewide and in national committees. United's CEO and various staff members continue to serve on statewide and national committees in support of energy innovation. The Cooperative views this communications approach as a success in that community groups continue to request United's involvement in presentations on energy innovation topics.

Several programs from the Energy Efficiency section above overlap with the conservation programs United has implemented. In addition to the programs described above, United began strongly promoting energy conservation to its membership several years ago. Many programs and methods have been implemented over this time frame, as described below.

Conservation topics. Each month, United develops a conservation topic that is provided to the employee group and membership. The intent of this conservation topic is to develop an understanding of how conservation can be employed to reduce energy usage. The information is provided internally through supervisor and employee meetings that occur monthly. Externally, monthly communication to the membership occurs through Texas Co-op Power (a monthly magazine sent to all members) and through items included with monthly bills mailed to all members. Internally, United's employees are involved in conservation programs to reduce office energy usage through a variety of methods that have been studied by the supervisors of United. The information developed is promoted to the membership continually, which consistently reinforces the message of energy conservation and efficiency.

Conservation advertising. United continually pays for advertising spots through different media options supporting the conservation message. One example of this is a billboard advertisement that aligns energy use with water use, with a message that shows "you don't leave your water running when you are not using it, conserve your energy too." This is just one example of a program that continually reminds our membership that conservation is necessary.

Energy audits. United performs residential energy audits for its membership on an as-requested basis at no additional cost to the individual members requesting the audits. During the audit process, United's auditors explain conservation methods to the members to encourage implementation of conservation methods at their residences. Further, the auditor collects information and performs a calculation of the estimated energy use for the home under audit. This information is then used to calculate the return on investment of different energy efficiency improvements that can be made by the member. In 2008, over 1,300 energy audits were performed by the Cooperative.

DEMAND RESPONSE

United has been instrumental in working with Brazos to develop and implement demand response programs over the past several years. To date, the Cooperative has implemented two well-developed demand response programs.

Voltage reduction at peak. United has implemented and operated distribution voltage reduction schemes during peak loading scenarios. This program is accomplished through programmed and computerized methods by reducing system voltage in areas where negative effects will not occur on the distribution system. This process allows for a temporary reduction in energy use. Measuring the real impact of voltage reduction is quite complicated. Studies have been accomplished that show between 2,000 kW and 5,000 kW of peak shaving over the time of voltage reduction, which is approximately 20 to 30 hours per year. A range of annual kWh savings is from 40,000 kWh to 150,000 kWh per year and is highly dependent on weather and load conditions at the time of voltage reduction.

Load curtailment program. During 2007 and 2008, United worked with Brazos to implement and operate a Load Curtailment Program. This program allows commercial/industrial members to shed load and be paid a demand component and energy component for actual curtailment. In 2007, 16,500 kW of United's load was enrolled in the program; in 2008, 22,700 kW of United's load was enrolled in the program. In 2007, approximately 81,447 kWh were saved, and in 2008, approximately 190,734 kWh were saved through the load curtailment programs. Net positive benefits have been achieved due to the fact the payments to the members were less than the value of the power that would have been

purchased to support the energy needs of the members. This program has been extended to 2009 as well.

DISTRIBUTED RESOURCES

Distributed resources (DR) are defined as generation on the demand-side, rather than on the supply-side. Distributed resources are generally connected to distribution or service voltages. United supports its members' involvement with implementing distributed resources through several methods.

Interconnection policy. United has had an interconnection policy in place allowing members to interconnect DR systems since 2001. Several revisions have occurred to this policy such that net-metering is now supported within a billing cycle for interconnected systems less than 50 kW of connected DR. Further, the Cooperative suspended the interconnection monthly fee of $10 per month in support of interconnection. United also allows systems up to 10 MW to interconnect to the distribution system as long as all procedures are followed.

Support. Due to the many questions United receives relating to DR, the Cooperative has invested time/training to ensure several employees are available to provide members with support during the application and study process, as well as the decision-making process. In 2008, several hundred calls were fielded, many with questions concerning the feasibility of small wind and photovoltaic systems (PV). United is continuing to support its members by keeping employees trained and available to address questions and concerns relating to DR installations. Currently, United members have installed and are operating DR as follows: six PV units, five wind units and one combination wind/PV unit. The total capacity of the units currently installed and owned by United's members is approximately 42 kW.

Web site information. As discussed above, United's web site has many tools to assist members in the determination and application of DR practices. In addition, links on the web site provide members with information and resources regarding certain tax incentives that may be available in connection with the installation of DR.

RATES

Due to the fact that energy is sold on a per kWh basis under United's current tariff, the lower the number of kWh sold, the lower the bill for the member. Therefore, United's current programs, by virtue of lowering energy use, allow members to see direct benefits from implementing energy innovation programs. With that said, it is understood that lower kWh sales, without kWh sales growth, has the potential to substantially reduce revenue necessary for the distribution cooperative to meet its business needs without raising rates.

The increasing price of a service is the economic signal to consumers to reduce consumption. However, in the members' best interest, United will study implementation of rate designs that help our members take necessary steps towards energy innovation before any requirements to do so as a result of price increases. Over the next few years, the Cooperative will implement rate designs that (i) allow electric bills to reflect distribution costs separate from wholesale transmission and power costs, and price distribution delivery charges that are more appropriately tied to distribution plant investment, rather than largely based upon kWh usage, and (ii) allow for increased promotion of energy innovation programs that do not jeopardize distribution revenue requirements.

United is in the early planning stages of its next rate design. The current plan is for data collection in the year 2009, a rate study in the year of 2010 and implementation of the new rate schedules in 2011. However, due to the great complexities of ratemaking, the Cooperative is uncertain at this point in time as to whether or not fair and equitable rate schedules can be effectively established and implemented that fully decouple revenue requirements from kWh unit sales.

United is confident that the current winter declining block rate will be retired from the rate design and the Cooperative intends to communicate this change well ahead of implementation. Further, United believes that it can effectively implement some type of rate schedule that removes or at least lessens the 'throughput incentive' as required by this standard. However, as discussed above, the Cooperative will conclusively make this determination upon completion of its next cost of service study in 2010.

Policy No. 2 for Rate Design Modifications to Promote Energy Efficiency Investments

United Staff recommends to the Board of Directors that the Cooperative continue to support all four tenants of energy innovation as detailed in United Policy 4100. Further, United will perform a full cost-of-service study in 2010 that examines and potentially adopts rate designs that decouple distribution and wholesale transmission/power costs, remove the 'throughput incentive' through establishment of appropriate distribution charges and support full implementation of energy innovation programs without jeopardizing distribution revenue requirements, as long as such rate designs can be effectively and fairly implemented across all rate classes.

3. CONSIDERATION OF SMART GRID INVESTMENTS

Under Second PURPA ElSA Standard 16,[4] each State must consider whether to require an electric utility to demonstrate that it has considered an investment in a qualified smart grid system before investing in non-advanced grid technologies. Although the Cooperative cannot direct state action or implement this standard for other utilities, the Cooperative can itself consider investing in a qualified smart grid system before making further investments in non-advanced grid technologies.

As part of its consideration of this Standard, United believes it is important to discuss the meaning of "smart grid" within the electric energy industry. With the passage of the Energy Independence and Security Act of 2007, Congress listed statements that 'characterize' the smart grid as:

1. Increased use of digital information and controls technology
2. Dynamic optimization of grid operation
3. Deployment and integration of distributed resources and generation, including renewable resources
4. Development and incorporation of demand response, demand-side resources, and energy efficiency resources
5. Deployment of real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices for metering, communications concerning grid operations and status, and distribution automation
6. Integration of "smart" appliances and consumer devices
7. Deployment and integration of advanced electricity storage and peak shaving technologies, including plug-in hybrids

[4] 16 U.S.C. § 2621(d)(16), 121 Stat. 1791.

8. Provision to consumers of timely information and control options
9. Development of standards for communication and interoperability of appliances and equipment interconnected with the distribution grid

The United States Department of Energy has also provided its view of smart grid with the following statements:

1. Enabling active participation by consumers
2. Accommodating all generation and storage options
3. Enabling new products, services, and markets
4. Optimizing assets and operating efficiently
5. Anticipating and responding to system disturbances in a self-healing manner
6. Operating resiliently against physical and cyber attack and natural disasters
7. Providing the power quality for the range of needs in a digital economy[5]

Taking into account the above descriptions of smart grid, the following is a discussion of United's activities with regard to smart grid investments:

United has been deploying first-generation smart grid technologies since the mid- to-late 1990s. Each technology incorporated into United's business operations goes through a cost/benefit analysis and business justification process. If the project is not feasible, it is not pursued. If the project is feasible, it is budgeted and then scheduled for completion in the correct timeframe. Items taken into consideration in the cost justification process for smart grid and other technologies include initial costs, including labor and materials; operating and maintenance costs; administrative costs; technology reliability; failure analysis; system reliability; system efficiency; work efficiency; and cooperative and member benefits.

The selection and implementation of the second generation smart metering system is a recent example of the analysis that United utilizes to make smart grid technology decisions. In the early to mid 1990's United began deploying its first automated meter reading (AMR) systems which in some ways can be considered smart grid technology. In 2004 and 2005, as two-way AMR systems became more prevalent and reliable, combined with increasing failure rates on United's existing one-way AMR systems, United began the process of performing a cost/benefit analysis along with a business

[5] U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability, *Smart Grid Activities at the Department of Energy*, Presented to FERC-NARUC Collaborative Leadership, May 7, 2008 (www.oe.energy.gov/DocumentsandMedia/Smart_Grid_Eric_Lightner_Presentation_05072008.pdf).

justification plan for upgrading its existing systems to a second generation AMR system, now called automated meter infrastructure (AMI). This process began with the establishment of a very detailed request for qualifications (RFQ) that was issued to all two-way AMI vendors that could be located doing business in the United States.

After receiving results from the RFQ, United performed a detailed analysis of the results and selected three finalists for further evaluation and cost estimates to determine what potentially would work in a rural distribution cooperative setting. After this selection, United worked with each selected potential vendor to visit deployments at other utilities and to go into further detail of the workings of each technology. This process eliminated one of the three systems. The next step was to get contractual and actual cost information for the two remaining vendors. This process was completed and the least expensive option was selected, which was also deemed as the best option for other justifications as well.

Before moving forward with the project, the estimated cost was benchmarked against the then current methods of meter reading. The average cost of a meter read, including first generation (one-way wireless and PLC) AMR and manual read (those that were not AMR yet), was $1.14 per meter read. In a very conservative case, the full cost of the implementation of the new two-way AMI system was calculated to be approximately $1.24 per meter read, which is approximately 8.7% higher than the then meter reading cost. After a review of the benefits of the two-way AMI system, compared with the then-existing meter reading technologies, it was deemed appropriate by the Cooperative to move forward with the project. Throughout the project, extensive effort has been made to reduce cost, much of which has been accomplished by bringing the cost per meter read closer to the then-current price. This is one example in which a technology has been deployed by the Cooperative that supports the characteristics of the smart grid.

Other solutions, technologies and policies that have been implemented at United and that support the characteristics of the smart grid include:

1. Supervisory control and data acquisition system (SCADA) connectivity at all substation and metering points, giving United valuable real-time information as well as real-time control of substation assets, including relays, reclosers, regulators, capacitors and switches.

2. Distribution automation (DA) connectivity at major distribution points of service, giving United valuable real-time information as well as real-time control of distribution assets, including reclosers, regulators, capacitors and switches.

3. Distribution control schemes at major distribution points, giving the grid set points for automated operation without human intervention.

4. Processes and policy to encourage member participation in distributed generation, and configured metering technologies to allow monitoring of distributed generation for accurate billing services.

5. Processes for load curtailment program involving members to reduce load in order to create new generation during critical pricing periods; provided member data to support trends and evaluate performance.

6. Private and secure IP-based network for AMI and other communications technologies across offices and substation networks with expansion of network as necessary.

7. A full geographic information system (GIS) of all asset data, including electrical connectivity modeling from the substation to each individual meter location; in final process of converting model to full GPS accuracy.

9. A full interactive voice response (IVR) system that reliably and quickly responds to member needs during large outage situations.

10. A full outage management system (OMS) that takes the fully connected GIS and performs outage prediction analysis based on inputs from the IVR, SCADA, and other input sources. The OMS also tracks historical outage data for further reliability analysis.

11. Commercial/industrial interval data program that collects and displays 15- minute interval data for members with loads greater than 700 kW. Members desiring daily access to data can obtain such via a secured Internet site.

Overall, United has been utilizing the approach as delineated by the standard under consideration and has already justified the costs and benefits and implemented many technologies that can be considered or characterized as "smart grid."

Rate recovery. United's current capital and expense budgets take into account all costs associated with the technologies as implemented. Future technology plans are developed ahead of budget planning. Therefore, studies can be accomplished prior to placing technology costs into financial forecasts. It is imperative that United's staff work closely to plan for proper rate recovery of smart grid and other

investments. This process is well defined at United. Further, as already mentioned, United is about to begin its next cost-of-service study. It is the intent of United to plan out technology upgrades and implementation within the framework of this new cost-of-service study (e.g. the utilization of technology to allow for time-of-use pricing and/or load control at member locations).

Obsolete equipment. United attempts to implement technology upgrades in life cycles. Following this trend allows full or near full depreciation of technology prior to implementation of new technology. Where this is not possible, United performs the necessary adjustments in book costs and accounts for the obsolescence appropriately. United follows Rural Development, Utilities Programs (RDUP) accounting practices for depreciation of assets. The process that United currently utilizes is appropriate and fits within the implementation of technology life cycles for the most part. Thus far, any upgrades for new technology have not caused a material write-off of non-depreciated book value of utility equipment that requires additional recovery through rate changes. This is an important note in that United has deployed and operates a substantial level of technology in its current operations. Further, our plans are for obsolescence of equipment to not be a sole consideration deterrent to smart grid enhancements going forward, understanding that there are many other considerations when implementing smart grid enhancements.

Policy No. 3 for Smart Grid Investments

United's staff recommends to the Board of Directors that all smart grid enhancements be analyzed with a cost/benefit analysis to include: initial costs including labor and material; operating and maintenance costs; administrative costs; technology reliability; failure analysis; system reliability; system efficiency; work efficiency; and cooperative and member benefits. Further, as a part of this analysis, United staff recommends to the Board of Directors that a plan to finance the new technology and to replace the obsolete technology be included with the cost/benefit analysis. Finally, United staff recommends to the Board of Directors that such cost/benefit analysis be reviewed and approved by the Board of Directors prior to the implementation of each major smart grid technology.

4. CONSIDERATION OF SMART GRID INFORMATION

Under Second PURPA ElSA Standard 17,[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;

b) the number of electricity units, expressed in kWh, purchased by them (Usage);

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);

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.

The Cooperative proposes implementing a modified version of the smart grid information standard for the following reasons:

USAGE, INTERVALS AND ACCESS

United provides each member with a monthly bill showing the current month's usage data appropriate for each account class (e.g. residential or commercial). The paper bill also shows the monthly usage for the last 13 months in a graphical form. With implementation of the new AMI system, United receives daily readings from the majority of the meters within its service territory currently including kWh reading, kW maximum since last read and time of kW maximum. This detail can easily be provided upon request to any member in paper form or electronic form.

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[6] 16 U.S.C. § 2621(d)(17), 121 Stat. 1792.

At this point in time, United does not have a reliable and secure method to provide the residential/small commercial member direct access to this information. For larger accounts (> 700 kW), all meters are read daily with kWh, kW and KVA demand readings every 15 minutes. This data can be provided in paper or electronic form upon request by the member or the member can subscribe to a secure Internet service where they can view the information via a secure Web site. Very few members have taken advantage of this service. At this point, there are no immediate plans to implement residential/small commercial direct access to daily data. However, United has been reviewing options to provide such data via a secure Web site and plan to continue to search for a secure, reliable, and cost-effective means to provide such data to members. Further, United has begun testing on collecting hourly interval data on select residential member meter locations with the new AMI system. United envisions offering to set up a member on hourly readings upon request at some future time.

SOURCES, PRICES AND PROJECTIONS

Wholesale prices, sources and projection data are not readily available to United. Because United is a distribution cooperative that relies completely on Brazos, United's all-power-requirements supplier, United does not collect, store, or make decisions on such data sources. Further, there are currently no rates that are developed in coordination with Brazos in order to make such data valuable to the individual members. United supports Brazos in developing such rate methodologies, but at this time, recent studies have shown no return on investment for Brazos to develop such rate strategies.

Policy No. 4 for Smart Grid Information

United Staff recommends to the Board of Directors that United provide metering information in any format feasible to the members upon request. United will make all AMI data available to the members through direct access once such service can be determined to be reliable and cost effective. Further, United will support Brazos in the cost-effective development of information and rate methodologies that allow members of United to potentially take advantage of wholesale market pricing for efficient use of energy.

These policies are proposed pursuant to Section 2621(d) of the Public Utility Regulatory Policies Act of 1978 and Sections 41.055 and 41.061 of the Public Utility Regulatory Act, TEX. UTIL. CODE ANN. §§ 41.055 and 41.061 (Vernon 1998 & Supp. 2005), which gives the Cooperative exclusive jurisdiction and authority to consider the PURPA ElSA standards and implement any policies or tariffs appropriate for the Cooperative members.

ISSUED IN CLEBURNE, TEXAS ON THE_____DAY OF _____ 2009
BY UNITED ELECTRIC COOPERATIVE
PATSY DUMAS
SECRETARY-TREASURER