

**Energy Independence and
Security Act of 2007**

PURPA Section 111(d)(16)

**Energy Efficiency in
Integrated Resource Planning**

Executive Summary

Choctawhatchee Electric Cooperative, Inc. (CHELCO) is a member-owned, non-profit electric cooperative headquartered in DeFuniak Springs, Florida which provides retail electric service in the counties of Walton, Okaloosa, Holmes, and Santa Rosa in the State of Florida. CHELCO, along with nineteen other cooperatives and municipalities, is a member-owner of PowerSouth Energy Cooperative (“PowerSouth”). PowerSouth is a member-owned, non-profit electric generation and transmission cooperative providing wholesale electric service in Alabama and northwest Florida. CHELCO receives all of its electric energy from PowerSouth and has by contract placed all wholesale power supply responsibilities with PowerSouth through December 31, 2050.

On December 19, 2007, President George W. Bush signed into law the Energy Independence and Security Act of 2007 (“EISA”). The EISA requires electric utilities with annual retail sales of electric energy exceeding 500 million kilowatt hours to consider whether to adopt four new standards added to the Public Utilities Regulatory Policies Act of 1978 (“PURPA”) Section 111(d), including:

- Integrated Resource Planning;
- Rate Design Modifications to Promote Energy Efficiency Investments ([Standard already met, not being considered at this time](#));
- Consideration of Smart Grid Investments; and
- Smart Grid Information.

The EISA requires that affected utilities consider whether the standards encourage PURPA’s stated purposes of conservation of: (1) energy supplied by electric utilities; (2) optimal efficiency of electric utility facilities and resources; and (3) equitable retail rates for electric consumers. The EISA does not require adoption of any of the four new standards. Instead, the EISA requires affected utilities **to consider** each standard and make a determination concerning whether or not it is appropriate to implement such standard.

CHELCO is included on the most recent Department of Energy list of utilities which have retail sales in excess of 500 million kilowatt hours for 2007. As such, CHELCO is required to consider the four new standards. CHELCO through its Board of Trustees began consideration of the new standards on November 20, 2008, including the Integrated Resource Planning Standard (the “IRP Standard”).

Because of its non-profit, member-owned corporate structure, CHELCO is organized primarily to provide electric service at the lowest cost and highest reliability to its member/consumers. Consequently, it is in the best interest of CHELCO to identify, promote, encourage, and plan for those resources whether supply-side, demand-side, or energy efficiency that benefit its membership. The standard of including energy efficiency in the planning process is not new to CHELCO due to its governance principles. This can be contrasted with the investor-owned utility corporation model where the prime motivation is not to the member/consumer but return on investment to shareholders.

The term “Integrated Resource Planning” (IRP) refers to a comprehensive planning process that incorporates both supply and demand resources to meet load requirements. The IRP Standard was written to specifically address one aspect of integrated resource planning: integrating energy efficiency into utility plans and adopting policies that encourage the provision of cost effective energy. PowerSouth, as the sole provider of wholesale electricity to CHELCO, is responsible for developing an IRP which includes CHELCO’s requirements. Energy efficiency measures and cost efficiency are given consideration when PowerSouth prepares plans or models detailing future generation resources. Additionally, PowerSouth’s planning includes maintenance operations, plant upgrades (as needed) and transmission improvements to encourage optimal efficiency of its electric facilities and resources.

PowerSouth and its members, including CHELCO, also include energy efficiency in PowerSouth’s IRP by promoting existing energy efficiency and load control programs at the retail level, including the Touchstone Energy Home Program; the Geothermal Heat Pump Program; the Dual Fuel Program; the Compact Fluorescent Lighting (“CFL”) Program; the Energy Efficient Manufactured Home Program; the Conserve 101 Energy Efficiency Education Program; the HERS / Energy Star Home Rating and Certification; and the No Peaking (voluntary load reduction) Program. Moreover, CHELCO and PowerSouth participate in demand-side management programs such as direct load control of water heating. Through these programs and membership in PowerSouth, CHELCO encourages conservation of energy, efficient use of facilities and equitable retail rates.

Procedural Background

The EISA amends Section 111(d) of PURPA (16 U.S.C. 2621(d)) by requiring the consideration of new standards for those electric utilities with annual retail sales of electric energy exceeding 500 million kilowatt hours. The new standards added to PURPA Section 111 (d) by the EISA are titled: (16) Integrated Resource Planning; (17) Rate Design Modification to Promote Energy Efficiency Investments; (16) Consideration of Smart Grid Investments; and (17) Smart Grid Information. The stated purposes of the PURPA standards are to encourage (1) conservation of energy supplied by electric utilities, (2) optimal efficiency of electric utility facilities and resources, and (3) equitable retail rates to electric consumers. [16 U.S.C 2601(1)]

The EISA requires affected utilities to consider the standards after public notice and hearing and to issue written determinations as to whether it is appropriate to implement each standard based upon the evidence presented at the hearings and using the procedures established by the nonregulated electric utility. [16 U.S.C 2621(b)] The EISA specifically states that “...each nonregulated electric utility shall consider each standard...and make a determination concerning whether or not it is appropriate to implement such standard...Nothing in this subsection prohibits any...nonregulated electric utility from making any determination that it is not appropriate to implement any such standard...” [16 U.S.C. 2621(a)] Therefore, affected utilities are only required to consider each standard and may choose not to implement any of the standards. [16 U.S.C. 2621(a)]

Proposed Standard

Section 532 of the EISA of 2007 amends PURPA by adding Standard 16 (PURPA Section 111(d)(16)), which states in its entirety:

- “(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.”

The EISA generally establishes deadlines for the commencement and completion of the required consideration for each standard. However, for the IRP Standard, the EISA did not set a timeline for commencement of consideration of the standard. The “Failure to Comply” provision

of PURPA 112(c) was amended to include this standard. Thus, if CHELCO fails to consider and make a determination on the IRP Standard, a determination could occur in the first rate proceeding after December 19, 2010. [16 U.S.C 2622(c)]

Relationship between CHELCO and PowerSouth

CHELCO is a member-owner of PowerSouth, along with nineteen other electric distribution cooperatives and municipalities located in central and south Alabama and northwest Florida. In addition to being a member-owner of PowerSouth, CHELCO has entered into a Contract for Wholesale Power Service with PowerSouth which requires that CHELCO purchase all of its electric power and energy from PowerSouth until December 31, 2050. It is the long-standing intent of both CHELCO and PowerSouth that all wholesale power supply responsibilities be placed upon PowerSouth. Those wholesale power supply responsibilities include comprehensive planning to consider and determine appropriate supply and demand resources to meet current and future load requirements within the context of local, state and federal policy goals and objectives (integrated resource planning).

PowerSouth is a nonprofit membership corporation which operates on a cooperative basis. CHELCO, being one member among PowerSouth's twenty, has only limited effect upon the practices of PowerSouth without the majority participation of PowerSouth's remaining members.

Integrated Resource Plan Overview

PowerSouth's and CHELCO's definition of an Integrated Resource Plan ("IRP") is a comprehensive planning process which considers both supply and demand resources to meet current and future load requirements within the context of local, state and federal policy goals and objectives. While IRPs have many objectives, a main objective of an IRP is to develop a plan to provide reliable competitively priced energy to consumers. The PURPA standard at issue here specifically addresses one aspect of the IRP: integrating energy efficiency into the plan and adopting those policies that identify cost effective energy efficiency as a priority resource.

Energy Efficiency Component of PowerSouth's IRP

Because PowerSouth is regulated by its membership, only minimal formal requirements are imposed on it by the state or local governments. However, PowerSouth is required by the Rural Utilities Service ("RUS"), as PowerSouth's lender, to semi-annually perform a Power Supply Study detailing the operations of its generation and transmission assets and facilities in order to qualify for financing of any new generation projects. This Study is based on the most recently RUS-approved load forecast. The historical load data used in the development of the regression forecast includes embedded energy efficiency load reductions. The forecast also considers trends and market penetration assumptions for energy efficiency and conservation for the future.

Additionally, on a periodic basis PowerSouth performs a "least cost" Power Supply Study to produce a generation expansion plan. As a part of this Study, PowerSouth considers various energy efficiency programs in an effort to establish a more energy efficient and cost effective generation and transmission system. Pursuant to this Study, PowerSouth examines and considers the various demand-side energy efficiency and load control programs including: the Touchstone Energy Home Program; the Geothermal Heat Pump Program; the Dual Fuel Program; the Compact Fluorescent Lighting ("CFL") Program; the Energy Efficient Manufactured Home Program; and the Conserve 101 Energy Efficiency Education Program. These programs are designed to lower demand growth, to improve load factor, to increase consumer confidence in member-owner cooperatives and to add value to the consumer's energy dollar. Each "least cost" Power Supply Study incorporates load reductions from energy efficiency and load control programs into PowerSouth's forecasted load impact.

Furthermore, PowerSouth promotes and emphasizes cost effective energy efficiency as a priority through its normal operations and programs. More specifically, through its maintenance functions, PowerSouth is constantly striving to achieve energy efficiency by improving generation heat rates and reducing transmission losses on its power grid. PowerSouth understands and recognizes the benefits of integrating energy efficiency and demand side management programs into its resource planning activities and intends to continue implementing and integrating such programs into its future system resources planning models.

Energy Efficiency Component of CHELCO's IRP

Because CHELCO is regulated by its membership, only minimal formal requirements are imposed on it by state and local governments, however, CHELCO as a member/owner of PowerSouth contributes to the “least cost” Power Supply Study performed on a periodic basis to produce a generation expansion plan for PowerSouth. As a part of this Study, PowerSouth considers various energy efficiency programs in an effort to establish a more energy efficient and cost effective generation and transmission system. Pursuant to this Study, PowerSouth examines and considers CHELCO's various demand-side energy efficiency and load control programs including: the Touchstone Energy Home Program; the Geothermal Heat Pump Program; the Compact Fluorescent Lighting (“CFL”) Program; the Conserve 101 Energy Efficiency Education Program, the HERS / Energy Star Home Rating and Certification; and the No Peaking (voluntary load reduction) Program. These programs are designed to lower demand growth, to improve load factor, to increase consumer confidence in member-owner cooperatives and to add value to the consumer's energy dollar.

Furthermore, CHELCO dedicates a portion of its annual budget to the promotion of energy efficiency and the support of demand-side energy efficiency and load control programs. CHELCO also promotes and emphasizes cost effective energy efficiency in its normal operations and programs. CHELCO understands and recognizes the benefits of integrating energy efficiency and demand side management programs and intends to continue implementing and integrating such programs in the future.

Discussion

PowerSouth strives to provide CHELCO, as well as its other member-owners, with long-term price stability and seeks to minimize CHELCO's exposure to the volatility of the wholesale power markets. In its resource planning activities, PowerSouth attempts to determine its least cost generation resources. In making this determination, PowerSouth considers the integration of supply-side load control and efficiency options with energy efficiency programs of both PowerSouth and CHELCO on the demand side. Through this planning process, CHELCO has and will continue to derive significant benefits from the reliable, low-cost energy supplied by PowerSouth as well as various supply side load control and demand side efficiency options.

As required, the IRP Standard has been considered by CHELCO using the three stated purposes of the PURPA amendment. [16 U.S.C. 2611]

(1) Conservation of energy supplied by electric utilities.

CHELCO is a non-profit, member-owned utility organized primarily to provide electric service at the lowest cost and highest reliability to its member/consumers. CHELCO's primary Residential and General Service (commercial) Rate Schedules (RS1, RS3, GS1, GS3) are designed to recover the cost of a Minimum Distribution System (MDS) through a fixed monthly customer charge. The MDS methodology places the majority of distribution costs in a recoverable format that is not tied to energy sales.

Consequently, it is in the best interest of CHELCO to identify, promote, encourage, and plan resources whether supply-side, demand-side, or energy efficiency that benefit its membership. The standard of including energy efficiency in the planning process is not new to CHELCO due to its organizing principles. This can be contrasted with the investor-owned utility model where the prime motivation is not to the member/consumer but return on investment to the shareholders who many times are not consumers of the investor-owned utility's electric service.

Installing energy efficiency technologies logically reduces consumption and promotes energy conservation. Energy efficiency that helps CHELCO's member/consumers get more for their energy dollar is therefore encouraged by CHELCO because the cooperative is organized specifically for the benefit of its member/consumers. CHELCO receives assistance in various conservation programs and marketing efforts from PowerSouth and from other sources, such as the National Rural Electric Cooperative Association. PowerSouth and CHELCO currently participate in and promote a number of energy efficiency programs in an effort to reduce load and conserve energy including the Touchstone Energy Home Program; the Geothermal Heat Pump Program; the Dual Fuel Program; the Compact Fluorescent Lighting ("CFL") Program; the Energy Efficient Manufactured Home Program; and the Conserve 101 Energy Efficiency Education Program; the HERS / Energy Star Home Rating and Certification; and the No Peaking (voluntary load reduction) Program. CHELCO and PowerSouth remain committed to the future development and implementation of demand side programs that will permit PowerSouth's generation resources to operate more cost effectively and efficiently. Therefore, PowerSouth and

CHELCO have and will continue to seek ways to conserve energy such that adoption of Standard 16, “Integrated Resource Planning,” is unlikely to encourage any additional energy conservation and efficiency than current efforts.

(2) The optimization of efficiency of use of facilities and resources by electric utilities.

In concept, energy efficiency programs promote the optimization of the use of facilities and resources of electric utilities. For instance, programs that shift electric demand from peak periods to off-peak periods help utilize generation, transmission, and distribution facilities during periods of lesser demand and help avoid or mitigate the need to construct additional resources to meet demand during peak demands. The impact of efficiency programs on CHELCO’s and PowerSouth’s facilities depends upon a number of factors, including resource mix, load factor, and the design of the efficiency program. Energy efficiency measures implemented by CHELCO and PowerSouth specifically in the area of electric heat pumps have accomplished a great deal in the way of optimizing the efficient use of PowerSouth’s facilities and resources. In fact, PowerSouth’s members have changed from a summer peaking utility system to a winter peaking system largely as a result of promoting the installation and use by consumers of electric heat pumps. This spreading of energy use from peak times to what was at one time considered off-peak times has improved the load-factor of the system, spreading costs more evenly and utilizing assets more efficiently while lowering the resulting heating and cooling bills of those participating. In addition, CHELCO’s and PowerSouth’s continuing efforts to upgrade its generation facilities and conductors have also worked to optimize the efficiency of resources.

PowerSouth and CHELCO have and will continue to seek to optimize the efficient use of their respective facilities and resources such that adoption of Standard 16, “Integrated Resource Planning,” is unlikely to encourage any additional optimization than current efforts.

(3) Equitable rates to electric customers.

The rates paid by CHELCO’s consumers are comprised of a wholesale power cost from PowerSouth as well as the CHELCO’s distribution costs. The impact an energy efficiency program has on the third PURPA purpose, to encourage equitable rates for electric consumers, may depend on the actual program offered. Some programs may cause cost shifting where some consumers contribute to the expense of efficiency improvements while they do not receive any

energy savings or system benefits. In such a situation, that particular consumer's rates may be determined to be less equitable than in a program where all consumers receive benefits or where costs are directly allocated by those receiving benefits from the program. CHELCO and PowerSouth have continued to focus attention on programs that are paid for and benefit those who participate.

PowerSouth and CHELCO have and will continue to seek ways to encourage equitable rates to electric consumers such that adoption of Standard 16, "Integrated Resource Planning," is unlikely to encourage any more equitable rates than current efforts.

Contacts and Other Resources

Consumers seeking additional information about Integrated Resource Planning may contact the CHELCO or visit our website for information on this and other matters of interest as follows:

Cooperative: CHELCO
P.O. Box 512
DeFuniak Springs, FL 32433

Phone Number: (850) 892-2111

Website: <http://www.chelco.com>

In addition, the following resources are available as reference material:

Rose, Kenneth and Mike Murphy, *Reference Manual and Procedures for Implementation of the "PURPA Standards" in the Energy Independence and Security Act of 2007*, APPA/EEI/NARUC/NRECA, August 11, 2008.