

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE IMPLEMENTATION)	
OF SMART GRID AND SMART METER)	CASE NO.
TECHNOLOGIES)	2012-00428

ORDER

By this Order, the Commission will initiate an administrative proceeding to consider the implementation of Smart Grid and Smart Meter technologies and time-of-use pricing (hereafter referred to as “dynamic pricing”). Each jurisdictional electric utility will be made a party to this proceeding.¹ The five largest jurisdictional gas utilities (“Gas LDCs”) that were parties to Administrative Case No. 2008-00408 (“Admin 2008-00408”), the Commission’s review of the Energy Independence and Security Act of 2007 (“EISA 2007”),² shall also be made parties to this proceeding subject to further consideration as stated later in this Order.³ The purpose of this proceeding will be to address all aspects of a Smart Grid system from hardware and software issues to reliability improvement,

¹ All of the jurisdictional electric utilities were made parties to Administrative Case No. 2008-00408. These utilities are Big Rivers Electric Corporation (“Big Rivers”), Big Sandy Rural Electric Cooperative Corporation, Bluegrass Energy Cooperative Corporation, Clark Energy Cooperative, Inc., Cumberland Valley Electric, Inc., Duke Energy Kentucky, Inc. (“Duke Kentucky”), East Kentucky Power Cooperative, Inc. (“EKPC”), Farmers Rural Electric Cooperative Corporation, Fleming-Mason Energy Cooperative, Inc., Grayson Rural Electric Cooperative Corporation, Inter-Energy Cooperative Corporation, Jackson Energy Cooperative Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., Kentucky Power Company (“Kentucky Power”), Kentucky Utilities Company (“KU”), Licking Valley Rural Electric Cooperative Corporation, Louisville Gas and Electric Company (“LG&E”), Meade County Rural Electric Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, Owen Electric Cooperative, Inc., Salt River Electric Cooperative Corporation, Shelby Energy Cooperative, Inc., South Kentucky Rural Electric Cooperative Corporation, and Taylor County Rural Electric Cooperative Corporation.

² Case No. 2008-00408, Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007 (Ky. PSC Oct. 6, 2011).

³ These utilities are Atmos Energy Corporation (“Atmos”), Columbia Gas of Kentucky, Inc. (“Columbia”), Delta Natural Gas Company (“Delta”), Duke Kentucky, and LG&E.

cost recovery issues, and dynamic pricing. In addition, the Commission will also consider the adoption of the EISA 2007 Smart Grid Investment Standard and the EISA 2007 Smart Grid Information Standard.

On July 24, 2012, the Commission issued an Order in Admin 2008-00408 addressing the rehearing requests filed by the jurisdictional electric utilities and the Gas LDCs that were parties to that case. In that Order, the Commission, among other things, deferred the adoption of the Smart Grid Investment Standard⁴ and noted its intention to proceed with a new administrative proceeding to consider Smart Grid and Smart Meter issues.

The Commission has previously addressed a number of individual Smart Grid and Smart Meter issues in prior cases. In Administrative Case No. 2006-00045 (“Admin 2006-00045”),⁵ the Commission considered the adoption of the new Smart Metering standard set forth in Section 1252 of the Energy Policy Act of 2005 (“EPAAct 2005”), which was signed into law on August 8, 2005. EPACT 2005 amended the Public Utility Regulatory Policies Act of 1978 (“PURPA”) by adopting new standards for electric utilities regarding net metering, fuel source diversity, fossil fuel generation efficiency, smart metering, cogeneration and small power production, and interconnection.

Section 1252 of EPAAct 2005 included two smart metering standards that were directly considered and addressed by the Commission in Admin 2006-00045. The first standard required the consideration of the requirement that each electric utility offer

⁴ In its October 6, 2011 Order in Admin 2008-00408, the Commission had required the adoption of the EISA 2007 Smart Grid Investment Standard.

⁵ Administrative Case No. 2006-00045, Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-Based Metering, Demand Response, and Interconnection Service (Ky. PSC Dec. 21, 2006).

each customer class and provide, upon request, a time-based rate schedule where the rate charged varies during different time periods and reflects the variance in the utility's cost of service. The time-based rate schedule could include time-of-use pricing,⁶ critical peak pricing,⁷ real-time pricing,⁸ and credits for consumers with large loads that enter into pre-established peak load reduction agreements that reduce a utility's planned load capacity obligations. The second standard required that each utility provide each customer requesting a time-based rate with a meter capable of enabling the utility and the customer to offer and receive such a rate.

In its Final Order in Admin 2006-00045, the Commission did not require the adoption of Section 1252, the Smart Metering standard. It did require Big Rivers, EKPC, Kentucky Power, KU, and LG&E to develop voluntary pilot real-time pricing programs for large commercial and industrial customers.⁹ The Commission also required LG&E to finalize a residential real-time pilot pricing program pursuant to a partial settlement agreement in a 2003 rate case.¹⁰

⁶ Under time-of-use pricing, prices are pre-established for a specific time period on an advanced or forward basis based on the utility's cost of service. This allows consumers to vary demand and usage in response to such prices to manage their energy cost by shifting usage to a lower-cost period or reducing overall consumption.

⁷ Under critical peak pricing, time-of-use prices are in effect except for certain peak days when prices may reflect costs at a higher cost of service. Consumers may receive additional discounts for reducing peak period energy consumption.

⁸ Under real-time pricing, prices are set for a specific time period on an advanced or forward basis reflecting the utility's cost of service. Real-time prices may change as often as hourly.

⁹ Duke Kentucky was exempted from this requirement because it had offered a real-time pricing program for large commercial and industrial customers since 1999.

¹⁰ Case No. 2003-00433, An Adjustment of the Gas and Electric Rates, Terms, and Conditions of Louisville Gas and Electric Company (Ky. PSC June 30, 2004).

As initially referenced above, the Commission also considered Smart Grid and Smart Meter issues in Admin 2008-00408, which was established to consider EISA 2007. Signed into law on December 19, 2007, EISA 2007 amends PURPA by adding four new PURPA standards applicable to electric utilities and two new PURPA standards applicable to natural gas utilities. The standards pertinent to this proceeding are the Smart Grid Investment Standard and the Smart Grid Information Standard.

The EISA 2007 Smart Grid Investment Standard for electric utilities is as follows:

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:

- total costs;
- cost-effectiveness;
- improved reliability;
- security;
- system performance; and
- societal benefit.

The EISA 2007 Smart Grid Investment Standard also requires each state to consider rate recovery of Smart Grid capital expenditures, operating expenses, and other costs related to the deployment of smart grid technology, including a reasonable return on the capital expenditures. As part of the rate recovery consideration, each state is to also consider recovery of the remaining book-value of obsolete equipment associated with smart grid deployment.

The EISA 2007 Smart Grid Information Standard for electric utilities essentially requires that electric purchasers shall be provided direct access to the following types of information from their electricity supplier:

- Prices – Purchasers and other interested persons shall be provided 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 consumers.
- Usage – Purchasers shall be provided with the number of electricity units, expressed in kWh, purchased by them.
- Intervals and Projections – Updates of information on prices and usage shall be offered on 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.
- 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 that 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.

The EISA 2007 Smart Grid Information Standard also requires electric utilities to provide consumers access to their own information at any time through the internet and by other means of communication elected by the electric utility for smart grid applications. Other interested persons shall be able to access information not specific to any customer through the Internet. Customer-specific information shall be provided solely to that customer.

In its October 6, 2011 Order in Admin 2008-00408, the Commission required each jurisdictional electric utility to adopt the Smart Grid Investment Standard and deferred consideration of the Smart Grid Information Standard to a separate administrative matter to be initiated by the Commission. Pursuant to the July 24, 2012 rehearing Order in Admin 2008-00408, the Commission determined that a decision on

whether or not to adopt the Smart Grid Investment Standard should instead be deferred until the completion of this proceeding.

Also, as part of Admin 2008-00408, the Commission held an informal conference (“IC”) on October 21, 2009 based on its determination that:

“[a] dialogue should be initiated regarding Smart Grid and Smart Meter technology issues to further determine the status of Smart Meter deployment in Kentucky, the interest in establishing pilot or permanent Smart Meter programs in the near-term (within two to five years), and what actions the Commission should take in order to provide for implementation of Smart Meter programs if there is any interest among stakeholders.”¹¹

Following the request of Commission Staff at the October 2009 IC, a Smart Grid and Smart Meter collaborative was formed by the utilities of record in Admin 2008-00408 (“Joint Parties”) to address the deployment of Smart Meter technology and time-of-use rates. The collaborative requested Staff guidance and was provided with a document titled “Commission Staff Smart Meter and Smart Grid Guidance” which identified a broad array of Smart Grid and Smart Meter issues.¹² When providing the guidance document, the Staff stated that:

“While the ultimate goal is the deployment of Smart Meters and the offering of time of use rates to allow utility consumers to more effectively manage energy use, the implementation of broader Smart Grid technology that provides for greater automation of the distribution and transmission of electricity are also goals which the parties should try to achieve.”¹³

¹¹ Case No. 2008-00408, Commission Staff Notice of Informal Conference, Sep. 11, 2009.

¹² The Staff document was filed in Case No. 2008-00408 and served on all parties by the Commission’s Executive Director by cover letter dated February 19, 2011.

¹³ *Id.*, cover letter at 1.

As the result of a number of activities following the October 2009 IC, the Joint Parties filed a report entitled "Consideration of the New Federal Standards of the Energy Independence and Security Act" on March 25, 2011. Joint comments of the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention ("AG"), and the Community Action Council for Lexington-Fayette, Bourbon, Harrison and Nicholas Counties, Inc. ("CAC") were also filed on March 25, 2011.

By this Order, the Commission will include in the record of this case the documents filed in the record of Admin 2008-00408 relating to the October 10, 2009 IC. Those documents are listed in Appendix A, which is attached to this Order.¹⁴

In addition, Appendix A includes two documents resulting from the Kentucky Smart Grid Roadmap Initiative ("KSGRI"). The KSGRI was a collaborative effort between the University of Louisville's Conn Center for Renewable Energy Research and the University of Kentucky's Power and Energy Institute to analyze the existing power infrastructure in Kentucky and develop recommendations for future grid modernization efforts. The final report, released on September 18, 2012, titled Kentucky's Smart Grid Roadmap ("Smart Grid Roadmap") will be made part of this record. The information document supporting the Smart Grid Roadmap which is dated June 29, 2012 and titled Smart Grids in the Commonwealth of Kentucky ("Smart Grids in Kentucky") will also be made part of this record.¹⁵

¹⁴ With the exception of the Smart Grid Roadmap, all of Appendix A documents were previously served on the parties to Admin 2008-00408 and are not being served with this Order.

¹⁵ The Smart Grid Roadmap and Smart Grids in Kentucky are available for public review and download from the Commission's website in the folder for this case.

PROCEDURE

The procedural schedule for this proceeding is attached as Appendix B to this Order. That schedule includes dates for requesting intervention, filing testimony, discovery, and one or more informal conferences. Although the Gas LDCs have been made parties to this proceeding, the Commission recognizes that Smart Grid and Smart Meter issues are predominantly focused on the electric industry. Therefore, the Commission will allow each of the Gas LDCs the opportunity to individually or jointly file written arguments supporting termination of status as a party within 30 days of the date of this Order. Each utility that remains a party to this case will be required to individually or jointly file initial testimony in accordance with the schedule in Appendix B.

The Commission invites those persons that were granted intervention in Admin 2008-00408¹⁶ to request intervention in this proceeding and to actively participate. We will, therefore, serve this Order on each of the non-utility parties to Admin 2008-00408.

Each party shall file testimony as directed by this Order. The initial testimony of the jurisdictional electric utilities, and other parties if they so choose to file testimony, shall address, but will not be limited to, the EISA 2007 Smart Grid Investment Standard, the EISA 2007 Smart Grid Information Standard, the March 25, 2011 Report of the Joint Parties, the March 25, 2011 Joint Comments of the AG and CAC, and the Smart Grid Roadmap, as well as dynamic pricing. The Commission appreciates the previous agreement of the jurisdictional utilities and other parties to work collaboratively and hopes to build upon this effort to the extent possible. As a result, the attached procedural schedule has been developed with that collaborative effort in mind.

¹⁶ Intervention was granted to the AG, CAC, Kentucky Industrial Utility Customers, Inc. and Trilliant, Inc.

IT IS HEREBY ORDERED that:

1. This proceeding is opened to develop a record upon which the Commission can consider the issues of implementation of the EISA 2007 Smart Grid Investment Standard, the EISA 2007 Smart Grid Information Standard, Smart Grid and Smart Meter technologies, and dynamic pricing.

2. All jurisdictional electric utilities are made parties to this proceeding.

3. All five major jurisdictional natural gas utilities are made parties to this proceeding as set forth in this Order.

4. All five major jurisdictional natural gas utilities shall have 30 days from the date of this Order to submit arguments supporting a request for termination of status as a party to this case.

5. Copies of this Order shall be served upon each utility that was made a party to Admin 2008-00408 and upon each person granted intervention in that case.

6. The documents listed in Appendix A, attached hereto and incorporated herein, are included in the record of this case but shall not be served with this Order. The procedural schedule set forth in Appendix B, attached hereto and incorporated herein, shall be followed. Every utility made a party to this case and not released pursuant to ordering paragraph 4 shall individually or jointly file initial testimony in accordance with the procedural schedule.

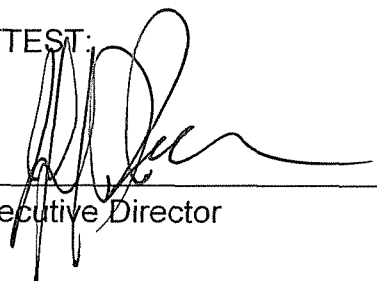
7. All requests for intervention shall be filed within 30 days of the date of this Order.

8. Public comments by non-parties shall be in writing and shall be filed prior to any hearing or shall be presented at the hearing.

By the Commission

ENTERED ^{MA}
OCT 01 2012
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:



Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN ADMINISTRATIVE CASE NO. 2012-00428 DATED OCT 01 2012

The following documents are incorporated into the record of this case:

The September 11, 2009 Commission Staff's Notice of IC;

The November 2, 2009 IC Memo;

The November 18, 2009 Response of the Joint Parties;

The February 19, 2010 IC Memo ("Staff's Guidance Document");

E.ON's April 29, 2010 Response to Staff's Guidance Document
submitted on behalf of the Joint Parties;

The April 29, 2010 Response of Grayson Rural Electric Cooperative
Corporation to Staff's Guidance Document;

Commission Staff's letter of May 28, 2010;

The December 7, 2010 Joint Motion of the Parties of Record for
Informal Conference;

The January 5, 2011 Commission Staff's Notice of IC;

The February 7, 2011 IC Memo;

The March 25, 2011 Report of the Joint Parties;

The March 25, 2011 Joint Comments of the AG and CAC;

The June 29, 2012 Smart Grids in Kentucky; and

The September 18, 2012 Kentucky's Smart Grid Roadmap Report.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN ADMINISTRATIVE CASE NO. 2012-00428 DATED

OCT 01 2012

All motions for intervention and any motions from the five major jurisdictional natural gas utilities for removal from this case shall be filed no later than 10/30/12

Initial testimony shall be filed individually or jointly by each utility party and may be filed by any non-utility party no later than 1/28/13

All initial requests for information shall be filed no later than 2/27/13

All responses to initial requests for information shall be filed no later than 3/20/13

An informal conference shall be held to address procedural issues and other issues raised in testimony..... 4/19/13

Response testimony by any party shall be filed no later than 5/20/13

All requests for information relating to response testimony shall be filed no later than..... 6/10/13

Responses to requests for information relating to response testimony shall be filed no later than 7/1/13

An informal conference shall be held to address procedural issues and other issues 7/23/13

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