

March 19, 2013

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PUBLIC SERVICE
COMMISSION

Mr. Jeff Derouen
Executive Director
Public Service Commission Kentucky
211 Sower Boulevard
Frankfort, KY 40602

Subject: Administrative Case No. 2012-00428

Dear Mr. Derouen:

Please find enclosed the original and 14 copies of the information requested by the PSC in the Appendix of Case No. 2012-00428, Consideration of the Implementation of Smart Grid and Smart Meter Technologies dated February 27, 2013; along with 14 additional copies of the information requested by the Attorney General in the same case. Chris Brewer, Vice President of Power Delivery, is the witness responsible for responding to questions related to the information provided.

Should you need additional information concerning this filing, please let me know.

Sincerely,



Michael I. Williams


*President/CEO
Blue Grass Energy*

Enclosures

Copied To: Service List Parties



Blue Grass Energy

A Touchstone Energy Cooperative 

**Administrative Case No. 2012-00428
First Data Request by PSC**

IN THE MATTER OF:
CONSIDERATION OF THE IMPLEMENTATION OF SMART GRID
AND SMART METER TECHNOLOGIES

March 19, 2013

CERTIFICATION

Robert Chris Brewer, state that I am the Vice President of Power Delivery at Blue Grass Energy Cooperative Corp., and I have personal knowledge of the prepared responses to the questions from the Commission Staff and the Attorney General in Case No. 2012-00428 dated February 27, 2013, and that the responses are true and correct, to the best of my knowledge, after a reasonable inquiry.



*Robert C. Brewer, VP of Power Delivery
Blue Grass Energy Cooperative Corp.*

Subscribed and sworn to before me by Robert Chris Brewer, this 19 day of March, 2013.



*Notary Public
State of Kentucky
County of Fayette*

405077

My Commission Expires: 9-18-13

REPORT INDEX

Administrative Case No. 2012-00428
First Data Request by PSC

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Blue Grass Energy

98. With regard to calendar years 2007 through 2012, identify and discuss what Smart Grid and/or Smart Meter initiatives the utility implemented. The discussion should include but not be limited to the reasons why each initiative qualifies as a Smart Grid and/or Smart Metering initiative; the date of installation; the total cost of installation; and any benefits resulting from the initiatives, quantifiable or otherwise, received by both the utility and the customers.

Response: In 2007 and 2008 BGE was in the final stages of implementing our system wide automatic meter reading system. An AMR/AMI system provides daily customer usage which provides better understanding of system loading along with outage and momentary interruption reporting. AMR/AMI system benefit the customer by their ability to see daily usage so they can better understand which days they are using the most power. This also increases their reliability and reduces outage time. All this qualifies this project as a smart grid project. During 2010 BGE implemented a pilot program for voltage monitoring and VAR control. This was done to lower demand through VAR and voltage optimization. Lower demand benefits both the customer and utility by lowering cost of power during peak demand times. Also in 2011 BGE upgraded our legacy SCADA system to retrieve and better control data in the older substations.

Witness: Ken Cooper

Blue Grass Energy

99. With regard to calendar years 2013 through 2018, identify and discuss what additional Smart Grid and/or Smart Meter initiatives the utility has forecasted to be implemented. The discussion should include but not be limited to the reasons why each initiative qualifies as a Smart Grid and/or Smart Metering initiative; the date of installation; the total cost of installation; and any benefits resulting from the initiatives, quantifiable or otherwise, received by both the utility and the customers.

Response: In the next few years we will be implementing a distribution automation system to gather additional data that is not available from the AMR/AMI system. This system will provide control of DA points that will add or remove VARS to optimize voltage. This system will also provide remote control and monitoring of key tie points for remotely reconfiguring the grid for better optimization. This system will most likely be installed in 2014 and will allow for reduction of line losses which is good for both the customer and the utility. Also, this system can be used for communicating with certain monitor devices that could help to improve system reliability which is obviously a benefit to both the customer and the utility.

Witness: Ken Cooper

Blue Grass Energy

100. With regard to DA Smart Grid Initiatives provide the following:

- a. The number of DA systems installed as of December 31, 2012, along with the associated benefits realized.

Response: A pilot system was installed which is detailed in PSC response 101.

- b. The number of DA systems to be installed in the next five years.

Response: 900 real time voltage monitoring and 50 remote controlled capacitor banks.

- c. The total number of DA systems to be installed with the DA system is completely deployed.

Response: 950.

Witness: Ken Cooper

Blue Grass Energy

101. With regard to Volt/Var Optimization, provide the following:

- a. The number of Volt/Var Optimization systems installed as of December 31, 2012, along with the associated benefits realized.

Response: Blue Grass Energy installed a pilot Volt/VAR optimization system in 2011 that proved communications is key part and also cost prohibitive at this time. Once the communications economics are resolved this system would be installed as a complete system wide system.

- b. The number of Volt/Var Optimization systems to be installed in the next five years, along with the forecasted in-service date.

Response: One system-wide volt-var system would be installed; however we have not set a schedule at this time.

- c. The total number of Volt/Var Optimization systems to be installed when the Volt/Var Optimization system is completely deployed.

Response: One system would be installed when the system is completely deployed.

Witness: Ken Cooper

Blue Grass Energy

102. With regard to Supervisory Control and Data Acquisition ("SCADA") Smart Grid initiatives, provide the following:

- a. The number of SCADA systems installed as of December 31, 2012 along with the associated benefits realized.

Response: At the end of 2012, Blue Grass Energy was fully implemented in all 33 substations with SCADA.

- b. The number of SCADA systems to be installed in the next five years, along with the forecasted in service data.

Response: Since SCADA is fully implemented at Blue Grass Energy, in the next five years SCADA will only be added to when new substations are constructed or upgraded.

- c. The total number of SCADA systems to be installed when the SCADA systems is completely deployed.

Response: Done.

Witness: Ken Cooper

Blue Grass Energy

103. As it relates to Dynamic Pricing (where rates are established hourly throughout the day) Tariffs or TOU Tariffs, provide the following:

- a. The number of customers the utility has or had on these types of tariffs, identified separately by specific tariff.

Response: Residential TOU	38
General Service TOU	2

- b. Whether these customers shifted load from high-price time periods to lower-priced time periods.

Response: Unknown.

- c. Whether these customers consumed more, less or the same number of kWh.

Response: Unknown.

- d. Whether the utility reached any findings or conclusions based on its experience with customers on Dynamic Pricing and/or TOU Tariffs.

Response: We have not noticed any significant change.

Witness: Donald Smothers

Blue Grass Energy

104. Describe precautions taken and/or standards developed by the utility to address concerns regarding cybersecurity and privacy issues.

Response: Network isolation strategies along with PCI compliance and FTC Red Flag rules provide protection and isolation of critical and sensitive data for better cybersecurity.

Witness: Ken Cooper

Blue Grass Energy

105. Provide a discussion and details of progress made regarding the concern raised by the utilities as it relates to the interoperability standards for Smart Grid equipment and software.

Response: Interoperability has to be dealt with on every project where different vendors provide equipment. Most have used proprietary communications since this has been a problem. Equipment has been developed which allows for standard communications protocols to used, such as DNP3 and IP.

Witness: Ken Cooper

Blue Grass Energy

106. Provide a discussion concerning how the costs (investment and operating and maintenance costs) associated with the installation of Smart Grid facilities should be recovered from the ratepayers.

Response: Blue Grass Energy references the response to PSC Request #106 submitted by EKPC and adopts that response as its own.

Witness: Chris Brewer

Blue Grass Energy

107. State whether the utility would favor a requirement that it report to the Commission so that the Commission is aware of the jurisdictional Smart Grid and/or Smart Meter activities within the Commonwealth. As a specific example, the requirement could order that a report be provided each September regarding the Smart Grid and/or Smart Meter activities the utility is planning to perform during the upcoming calendar year, followed by an April report of the Smart Grid and/or Smart Meter activities the utility completed the preceding calendar year.

Response: Blue Grass Energy references the response to PSC Request #107 submitted by EKPC and adopts that response as its own.

Witness: Chris Brewer

Blue Grass Energy

108. State whether the utility believes KRS 278.285 is an appropriate approach to recovering the costs (investment and operation and maintenance) associated with Smart Grid investments.

Response: Blue Grass Energy references the response to PSC Request #108 submitted by EKPC and adopts that response as its own.

Witness: Chris Brewer

Blue Grass Energy

109. State whether the utility believes a tracking mechanism as described beginning on page 3 of the Wathen Testimony on behalf of Duke Kentucky is an appropriate approach to recovering the costs associated with Smart Grid investments.

Response: Blue Grass Energy references the response to PSC Request #109 submitted by EKPC and adopts that response as its own.

Witness: Chris Brewer

Blue Grass Energy

110. State whether the utility has commissioned a thorough DSM and Energy Efficiency ("DSM-EE") potential study for its service territory. If the response is yes, provide the results of the study. If no, explain why not.

Response: Blue Grass Energy references the response to PSC Request #110 submitted by EKPC and adopts that response as its own.

Witness: Chris Brewer

Blue Grass Energy

111. Refer to the Munsey Testimony on behalf of Kentucky Power, page 10, lines 11-19 regarding the Green Button initiative. Describe the extent of your utility's participation in this industry-led effort.

Response: As far as Blue Grass Energy's participation in the "Green Button Initiative", all members are able to access their data through our member portal, (available through our website or smart phone app), which gives a daily reading for their meter. There is also an option to overlay that reading with temperatures which helps the member understand the correlation between increased usage and weather. We also offer Time of Use Rates, and Pay as you go (Prepaid). The time of use rate gives data to members showing kWh used on peak and kWh usage off peak. Members on prepay metering get an email, or text alerting them when their account has dropped below \$25.

Witness: Barry Drury

Blue Grass Energy

112. Refer to the Roush Testimony on behalf of Kentucky Power, DMR Exhibit 1. Provide a similar exhibit containing a list of time-differentiated rates available to your customers.

Response: 1. GS-1 Residential and Farm Rate, Effective Case No. 2010-00497, June 1, 2011

2. GS-3 Residential and Farm Time-of-Day Rate, Effective Case No. 2010-00497, June 1, 2011

3. SC-1 General Service (0-100 KW) Rate, Effective Case No. 2010-00497, June 1, 2011

4. SC-2 General Service (0-100 KW) Time-of-Day Rate, Effective Case No. 2012-00384, November 19, 2012

5. LP-1 Large Power (101- 500 KW) Rate, Effective Case No. 2010-00497, June 1, 2011

6. LP-2 Large Power (over 500) Rate, Effective Case No. 2010-00497, June 1, 2011

7. Large Industrial Rate – Schedule B-1 ((1,000 to 3,999 KW) Rate, Effective Case No. 2010-00497, June 1, 2011

8. Large Industrial Rate – Schedule B-2 (Over 4,000 KW) Rate, Effective Case No. 2010-00497, June 1, 2011

9. Large Industrial Rate – Schedule G-1(Over 15,000 KW) Rated Effective Case No. 2011-00696, December 1, 2011

Witness: Donald Smothers

Blue Grass Energy

113. Provide a description of the type of meters (mechanical, electromechanical, AMR [one-way communication]. AMI [two-way communication]) currently used by the utility. Include in the description the reasons the current meters were chosen and any plans to move to a different type of metering configuration.

Response: Blue Grass Energy has been fully deployed with 2 way AMI since 2008. We are using a full solid state electronic meter this was done to insure accuracy of daily reported readings where the daily reading sent in is exactly the same as the meter display at the time of read capture. There are no plans to change to any other meter configuration.

Witness: Ken Cooper

Blue Grass Energy

114. If either AMR or AMI metering is in use, state whether the utility has received an customer complaints concerning those meters.

Response: Blue Grass Energy is not aware of any customer complaints regarding our AMR meters.

Witness: Chris Brewer

Blue Grass Energy

115. In testimony, each utility cited cybersecurity as an area of concern related to the implementation of Smart Grid technologies. Provide and describe your company's policy regarding cybersecurity and the standard your company has adopted governing cybersecurity. If your company has not adopted any policy standard, identify and describe any industry or nationally recognized standards or guidelines that you may be aware of that Commission should consider relating to cybersecurity issues and concerns.

Response: Network isolation strategies along with PCI compliance and FTC Red Flag rules provide protection and isolation of critical and sensitive data for better cybersecurity.

Witness: Ken Cooper

Blue Grass Energy

116. If not previously addressed, provide a detailed discussion of whether deployment of smart meters should allow for an opt-out provision.

Response: Blue Grass Energy references the response to AG request #19 submitted by EKPC and adopts that response as its own for this request and we would like add the following response in addition:

Based upon our history, members have not had a problem with smart meters. As a matter of fact, most welcome the additional information that these meters can provide, such as daily readings to help them manage their electricity usage.

Witness: Chris Brewer and Barry Drury