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PUBLIC SERVICE
COMMISSION

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In re the Matter of:

**CONSIDERATION OF THE IMPLEMENTATION)
OF SMART GRID AND SMART METER)
TECHNOLOGIES)**

**CASE NO.
2012-00428**

**RESPONSES TO COMMISSION STAFF'S
FIRST REQUEST FOR INFORMATION
DATED FEBRUARY 27, 2013**

OATH

Commonwealth of Kentucky)
) ss:
County of Barren)

TONY WELLS _____ makes oath and says

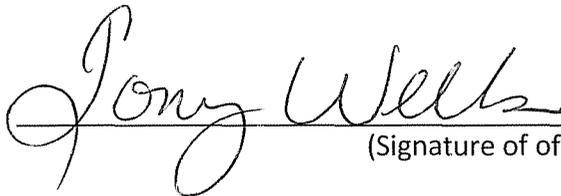
(Name of Officer)

that he/she is VICE PRESIDENT OF TECHNICAL SERVICES _____ of

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION _____

(Exact legal title or name of respondent)

I, Tony Wells, makes oath and says that he is Vice President of Technical Services of Farmers Rural Electric Cooperative Corporation ("Farmers RECC"); that I have carefully examined the foregoing Smart Grid data request and to the best of my knowledge and belief the statements contained in this report are true, and is a correct and complete statement of the business and affairs of Farmers RECC in every respect.

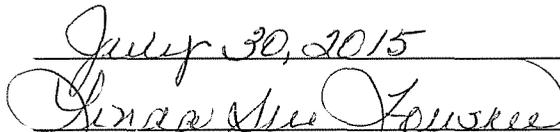


(Signature of officer)

Subscribed and sworn to before me, a Notary Public in and for the State and County named in the above this 19th day of March, 2013.

Apply seal here

My commission expires

July 30, 2015


(Signature of officer authorized to administer oath)
Notary ID # 446566

Request 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.

Answer 98. Based upon definitions and descriptions located in the document entitled “Kentucky’s Smart Grid Roadmap”, there have been no initiatives.

Witness Responsible.Tony Wells

Request 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 why each forecasted initiative qualifies as a Smart Grid and/or Smart Metering initiative; the forecasted date of installation; the forecasted total cost of installation; and any forecasted benefits to result from the initiatives, quantifiable or otherwise, received by both the utility and the customers.

Answer 99. Based upon definitions and descriptions located in the document entitled “Kentucky’s Smart Grid Roadmap”, there are no initiatives planned.

Witness Responsible.Tony Wells

Request 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.

Answer 100.a. 0

Witness Responsible.Tony Wells

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

Answer 100.b. 0

Witness Responsible.Tony Wells

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

Answer 100.c. 0

Witness Responsible.Tony Wells

Request 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.

Answer 101.a. 0

Witness Responsible.Tony Wells

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

Answer 101.b. 0

Witness Responsible.Tony Wells

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

Answer 101.c. 0

Witness Responsible.Tony Wells

Request 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.

Answer 102.a. Although we have a SCADA system, we have not implemented any Smart Grid Initiatives.

Witness Responsible.Tony Wells

- b. the number of SCADA systems to be installed in the next five

years, along with the forecasted in service date.

Answer 102.b. Although we have a SCADA system, we have no plans to implement any Smart Grid Initiatives.

Witness Responsible. Tony Wells

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

Answer 102.c. Unknown at this time

Witness Responsible. Tony Wells

Request 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.

Answer 103.a. Schedule C Time of Day - Farmers RECC has two members on this rate structure.
Schedule D Time of Day – Farmers RECC has three members on this rate structure.
The other interruptible rate structures while offered have not had any participation.

Witness Responsible. Tony Wells

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

Answer 103.b. The members on the Schedule C time of day rate have not shifted load from higher-priced periods to lower-priced periods. One load was primarily based in the off-peak hours and have moved to the time of day rate to take advantage of the lower rate structure. The other load was an extremely poor load factor member who avoided the demand charge associated with other rate structures.

The members on the Schedule D time of day rate have structured their work processes to take advantage of the off-peak demand savings.

Witness Responsible. Tony Wells

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

Answer 103.c. The rate Schedule C members have not significantly used more or less kWh. The rate Schedule D is a demand only incentive rate and therefore their kWh consumption is the same.

Witness Responsible. Tony Wells

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

Answer 103.d. Farmers RECC concludes that under the current price structures the movement to the time of day rate has resulted in some customers moving their processes to the off-peak hours.

Witness Responsible. Tony Wells

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

Answer 104. Cybersecurity is best characterized as a lifecycle: protect/prevent, detect, respond, recover. The steps in the lifecycle are addressed as follows:
Protect - Perimeter Firewall, Security Baseline, Antivirus, stateless virtual environment, patch management
Detect - Antivirus, URL Filtering, Application/Network Firewall
Respond - System/Network Performance Monitoring, Configuration Management
Recover - Data Recovery (virtual environment, tape backup of CIS system / periodic backup of CIS DB stored in disparate geographic location)

Recognizing the aforementioned elements of cybersecurity, we have taken appropriate action to address these issues, incorporating available technology. Work continues in this area as new applications are implemented and new threats become known or are anticipated.

Witness Responsible.Tony Wells

Request 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.

Answer 105. This is an obvious industry concern and not a unique situation due to the relevant infancy of the Smart Grid concept and the position we are in as it relates to the probable life cycle of this concept. As with any new idea or product, de facto standards typically emerge after industry participants begin to settle in on particular approaches or a vendor is successful in dominating the market. Interoperability will improve as the market ultimately selects which technologies will be accepted and which will go by the wayside.

Witness Responsible.Tony Wells

Request 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.

Answer 106. Farmers RECC references the response to PSC Request #106 submitted to this request by EKPC, and adopts that response as its own.

Witness Responsible.Tony Wells

Request 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.

Answer 107. Farmers RECC references the response to PSC Request #107 submitted to this request by EKPC, and adopts that response as its own.

Witness Responsible. Tony Wells

Request 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.

Answer 108. Farmers RECC references the response to PSC Request #108 submitted to this request by EKPC, and adopts that response as its own.

Witness Responsible. Tony Wells

Request 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.

Answer 109. Farmers RECC references the response to PSC Request #109 submitted to this request by EKPC, and adopts that response as its own.

Witness Responsible. Tony Wells

Request 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.

Answer 110. We work in conjunction with our power supplier to ascertain such information and its appropriate use, therefore, Farmers RECC references the response submitted to this request by EKPC, and adopts that response as its own.

Witness Responsible. Tony Wells

Request 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.

Answer 111. Farmers RECC does not formally participate in the Green Button Initiative. However, through our website and mobile app for smart phones, we have made available to all of our members the ability to see their daily kWh consumption with a temperature line in a graph format for the last six month billing periods through our “Member Center”.

Witness Responsible. Tony Wells

Request 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.

Answer 112.

Tariff	Farmers RECC Time-based Metering/Demand Tariffs			
	Description	Currently in Effect	Commission Case	Order Date
Commercial/Industrial Schedule C	kWh only - Time of Day	X	2012-00108	3/15/2012
Schedule D	Demand only -- Time of Day	X	2010-00500	5/31/2011
Interruptible Service	Interruptible	X		1/20/2012
Voluntary Interruptible	Interruptible	X		1/20/2012

Service Description

Schedule C Time of Day – Available to commercial members not exceeding 500 kW demand. This is an all energy rate with on-peak and off-peak rate structures.

Schedule D Optional Time of Day Rate – Available to all commercial/industrial members. The billing demand is the maximum kW demand established by the member for any period of fifteen consecutive minutes during the on-peak hours only.

Interruptible Service – Available to any member with a contract for an interruptible demand of not less than 250 kW and not more than 20,000 kW.

Voluntary Interruptible Service – Available to any member who will contract for an interruptible demand of at least 1,000 kW upon request. The member may accept or decline the terms of the interruption offered.

Witness Responsible.Tony Wells

Request 113. Provide a description of the type of meters (mechanical, electro-mechanical, 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.

Answer 113. Farmers RECC uses electronic meters with an AMI module capable of two-way communications. It was determined at the time that the Aclara TWACS system provided the most flexibility. There are no plans to move to a different type of metering configuration.

Witness Responsible.Tony Wells

Request 114. If either AMR or AMI metering is in use, state whether the utility has received any customer complaints concerning those meters. If the response is yes, provide the following:

Answer 114. Yes

Witness Responsible.Tony Wells

a. the number of complaints, separated by gas and electric if a combination utility, along with the total number of customers served.

Answer 114.a. One written request.

Witness Responsible.Tony Wells

b. how the complaints were addressed by the utility.

Answer 114.b. Yes

Witness Responsible.Tony Wells

c. a detailed explanation as to whether customers should have the ability to opt out of using either AMR or AMI metering.

Answer 114.c.

Opting out should not be allowed. It is to the advantage to all customers that all locations are AMI equipped in both terms of cost and reliable service. Outage analysis, equipment loading and system load flow analysis are enhanced with the data provided by these AMI systems. The reasons that are commonly given by customers for wanting to opt out are based on reasons that have no real merit – i.e. health concerns of radio frequency type meters, surveillance by the utility, trespassing, etc. Utilities and their rate payers should not be required to bear the costs of responding to myths propagated on the Internet.

Witness Responsible. Tony Wells

d. If customers were to be given the opportunity to opt out of using either AMR or AMI metering, provide:

- i. an explanation as to whether the utility should establish a monthly manual metering reading tariff or charge applied to the opt-out customers to recover the costs associated with manually reading the non-AMR or -AMI accounts.

Answer 114.d.i.

A full-cost recovery, reoccurring charge should be developed and applied to the customer requesting such extraordinary, non-conforming service.

Witness Responsible. Tony Wells

- ii. an explanation as to whether these opt-out customers could still receive benefit from the utility using either AMR or AMI metering.

Answer 114.d.ii. Their benefit would be diminished, but they would still be benefiting from the investment of the systems.

Witness Responsible.Tony Wells

iii. an explanation addressing the point at which opt-out customers, either in terms of number of customers or a percent of customers, affect the benefits of the utility using either the AMR or AMI metering.

Answer 114.d.iii. This would depend upon the specific use/benefit of the AMI/AMR system – i.e. meter reading, transformer loading, outage analysis, etc. For example, meter reading is quickly affected by anyone opting out, as the utility has to begin dispatching someone to read their meter each month.

Witness Responsible.Tony Wells

Request 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 or the standard your company has adopted governing cybersecurity. If your company has not adopted any policy or standard, identify and describe any industry or nationally recognized standards or guidelines that you may be aware of that the Commission should consider relating to cybersecurity issues and concerns.

Answer 115. See Request #104

Witness Responsible.Tony Wells

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

Answer 116. See Request #114 subpart c.

Witness Responsible.Tony Wells