




Rural Electric Cooperative Corporation

A Touchstone Energy® Cooperative 

March 18, 2013

RECEIVED

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PUBLIC SERVICE
COMMISSION

MR JEFF DEROUEN
EXECUTIVE DIRECTOR
PUBLIC SERVICE COMMISSION
PO BOX 615
FRANKFORT KY 40602

RE: PSC CASE NO. 2012-00428

Dear Mr. Derouen:

Please find enclosed an original and fourteen (14) copies of the responses to questions 98 through 116 of Nolin RECC as requested in the above referenced case dated February 27, 2013.

If you have any questions, please let me know.

Sincerely,



Michael L. Miller
President & CEO

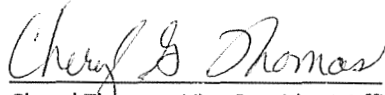
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Enclosures

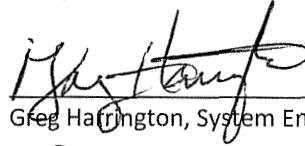
Commonwealth of Kentucky
Before the Public Service Commission
Case No. 2012-00428

VERIFICATION

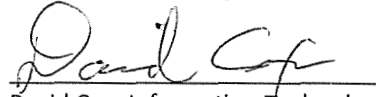
I verify, state and affirm that the testimony filed with this response and for which I am listed as a witness is true and correct to the best of my knowledge, information and belief formed after a reasonable inquiry.



Cheryl Thomas, Vice President Office Services – Nolin RECC



Greg Harrington, System Engineer – Nolin RECC

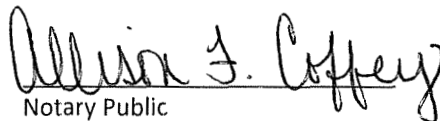


David Cox, Information Technology Director – Nolin RECC

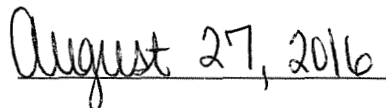
State of Kentucky

County of Hardin

The foregoing was signed, acknowledged and sworn to before me, this 15th day of March, 2013.


Notary Public

My Commission Expires:



Nolin Rural Electric Cooperative Corporation
First Request for Information – Case No. 2012-00428
Public Service Commission Staff Request Dated February 27, 2013

Question 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:

Nolin RECC's Smart Grid and/or Smart Meter initiatives and utility implementation took place prior to 2007. Nolin had a fully deployed and functioning AMI system in place by the year 2007. Nolin has not been in an AMI implementation process over the past five years, but rather in a mode of operating and maintaining the AMI system.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

First Request for Information – Case No. 2012-00428

Public Service Commission Staff Request Dated February 27, 2013

Question 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:

Nolin RECC has no approved forecasted plans for Smart Grid Meter initiatives to be implemented during the calendar years 2013 through 2018.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 100:

With regard to DA Smart Grid Initiatives provide the following:

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

Answer:

Nolin RECC had one type of DA systems installed prior to December 31, 2012. The SCADA system is installed in each of EKPC's twenty-two substations. The SCADA system constantly monitors status and value for each breaker within the substation. Preset commands control these devices when the distribution system conditions indicate a need for response. Every change of state is reported via SCADA to the dispatch center located in Nolin RECC's headquarters building.

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

Answer:

Nolin RECC has no approved plans to install DA systems within the next five years.

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

Answer:

Nolin RECC has not conducted an engineering analysis to determine the number of DA systems to be installed within our system.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
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Question 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:

Nolin RECC had no Volt/VAR Optimization systems installed prior to December 31, 2012.

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

Answer:

Nolin RECC has no approved plans to install Volt/VAR Optimization systems within the next five years.

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

Answer:

Nolin RECC has not conducted any kind of engineering analysis to determine the number of Volt/VAR Optimization systems to be installed within our system.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
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Question 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:

Nolin has twenty-two (22) SCADA systems installed as of December 31, 2012. The benefits realized through Nolin’s SCADA system is that it saves time and money by eliminating the need for service personnel to visit each substation site for inspection, data collection/logging or to make adjustments. Real-time monitoring, system modifications, troubleshooting, increased equipment life and automatic report generating are just a few of the benefits realized through our SCADA system.

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

Answer:

Nolin plans to have one (1) SCADA system installed in the next five years. The forecasted in service date is approximately 2016.

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

Answer:

Nolin plans to have twenty-three (23) SCADA systems installed when the SCADA system is completely deployed.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
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Question 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 a specific tariff.*

Answer:

Nolin RECC does not have a Dynamic Pricing or TOU Tariff in place.

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

Answer:

Nolin RECC does not have a Dynamic Pricing or TOU Tariff in place.

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

Answer:

Nolin RECC does not have a Dynamic Pricing or TOU Tariff in place.

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

Answer:

Nolin RECC does not have a Dynamic Pricing or TOU Tariff in place.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
First Request for Information – Case No. 2012-00428
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Question 104:

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

Answer:

Nolin RECC uses a Unified Threat Management system in conjunction with industry best practice procedures.

Responding Witness: David Cox, Information Technology Director
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
First Request for Information – Case No. 2012-00428
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Question 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:

Nolin RECC is investigating the interoperability standards for Smart Grid equipment and software at this time. As Nolin RECC moves forward with any additional Smart Grid implementation, these standards will be considered.

Responding Witness: David Cox, Information Technology Director
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
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Question 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:

Nolin RECC references the response to PSC Request #106 submitted by EKPC and adopts that response as its own.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC references the response to PSC Request #107 submitted by EKPC and adopts that response as its own.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
First Request for Information – Case No. 2012-00428
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Question 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:

Nolin RECC references the response to PSC Request #108 submitted by EKPC and adopts that response as its own.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC references the response to PSC Request #109 submitted by EKPC and adopts that response as its own.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC has not commissioned a thorough DSM and Energy Efficiency ("DSM-EE") potential study for our service territory. Nolin was unaware that a requirement existed for such a study, however Nolin has and will continue to promote our various DSM programs to our members. Nolin believes member education and energy utilization programs will aid in energy efficiency. The programs that Nolin has seen that have been most successful in implementation have been "incentive driven" programs.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC does not have a “Green Button.”

Responding Witness: Cheryl Thomas, Vice President Office Services
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
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Question 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:

Time-based Metering Tariff Provisions
03/04/13

| Tariff | Description of Service/Provision | Currently in Effect | Commission Case | Order Date |
|-----------------|--|----------------------------|------------------------|-------------------|
| Schedule RTP-DA | Real-time pricing, day ahead, pilot program (Commercial/Industrial members)* | No | 2007-00165 | 02/01/08 |

* Pilot program expired 12/31/2012 and no formal decision has been rendered as to the future of the tariff.

Responding Witness: Cheryl Thomas, Vice President Office Services
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC currently has mechanical and electromechanical types of meters within our service territory.

Nolin is utilizing Landis & Gyr's (formerly Hunt Technologies) TS2 AMI system, which is a two-way system. Prior to the AMI deployment in 2003 all of Nolin's electric meters were mechanical; after full deployment of AMI, approximately 20,000 mechanical meters were retrofitted with the TS2 modules. Through attrition, Nolin is down to less than 10,000 mechanical meters within our system.

Mechanical meters are no longer available for purchase because it is less costly for meter manufactures to produce electromechanical meters. Currently, within our system Nolin has approximately 24,000 electromechanical meters installed with TS2 modules. Nolin did not necessarily choose the electromechanical meter, it was a choice that was forced on us because meter manufactures no longer produce the mechanical meter.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

- a. the number of complaints, separated by gas and electric if a combination utility, along with the total number of customers served.*
- b. how the complaints were addressed by the utility.*
- c. a detailed explanation as to whether customers should have the ability to opt out of using either AMR or AMI metering.*
- 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.*
 - ii. an explanation as to whether these opt-out customers could still receive benefit from the utility using either AMR or AMI metering.*
 - 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:

Nolin RECC has not received any complaints from our members concerning AMI meters being used.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation

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Question 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:

Nolin RECC uses a Unified Threat Management system in conjunction with industry best practice procedures.

Responding Witness: David Cox, Information Technology Director
Nolin Rural Electric Cooperative Corporation

Nolin Rural Electric Cooperative Corporation
First Request for Information – Case No. 2012-00428
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Question 116:

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

Answer:

Nolin RECC does not feel that it would be in the best interest for our overall membership to have an opt-out option offering to a few members. Nolin is willing to work with our members to provide necessary data and information to help our members understand how minimal the risks are from these AMI meters. Nolin wants to be progressive in pursuing energy innovation, but not at the risk of causing harm to our members or employees. However, Nolin can not allow a few members' perceived risk to cause financial harm to Nolin and our other members because these few do not want an AMI meter installed on their home. It would be very costly to service those few meters for members who opted out. If Nolin is required to permit such a customer to opt out, then Nolin should recover all of its costs which would be generated by requiring another type of meter for that particular opt out customer.

Responding Witness: Greg Harrington, System Engineer
Nolin Rural Electric Cooperative Corporation