SHEEHAN, BARNETT, DEAN, PENNINGTON, & LITTLE, P.S.C.

ATTORNEYS AT LAW 114 SOUTH FOURTH STREET P.O. BOX 1517 DANVILLE, KENTUCKY 40423 TELEPHONE 859-236-2641 FAX 859-236-0081

んいとしき

Of counsel ELIZABETH LENN

JAMES WILLIAM BARNETT J. HADDEN DEAN (<u>dean@danvillekylaw.com</u>) HENRY VINCENT PENNINGTON, III RAMONA LITTLE STEPHEN DEXTER CHRIS J TUCKER MELANIE CLARK

March 19, 2013

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

Re: PSC Case No. 2012-00428

Dear Mr. Derouen:

Please find enclosed the original and 14 copies of Inter-County Energy Cooperative's responses as requested in Case No. 2012-00428, Commission Staff's First Request for Information, dated February 27, 2013. David Phelps, Vice-President of Operations will be the witness responsible for questions 98 through 116 responses.

If there are any questions or if you should need additional information, please let me know.

Very truly yours

J. HADDEN DEAN, ESQ. Legal Counsel for Inter-County Energy Cooperative

Enclosures

Copies To: Case No. 2012-00428 Service List Mr. Jack Conway, Attorney General



A Touchstone Energy Cooperative

Responses to

PSC Commission Staff's First Request for Information

CASE NO. 2012-00428

In the Matter of Consideration of the Implementation of Smart Grid and Smart Meter Technologies

March 19, 2013

P. O. Box 87 • Danville, KY 40423-0087 • (859) 236-4561

PECENTED

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

PUBLIC SERVICE COMMISSION

MAR 2 0 2013

In the Matter of:

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

INTER-COUNTY ENERGY RESPONSES

All Electric utilities shall respond to the following questions:

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 2009, Inter-County Energy began its AMI installation. The Landis + Gyr, i.e. TS2, two-way power line carrier was selected. We completed our retrofit in 2012 with a total cost of \$4,129,561. This system has allowed us to collect proper phasing and location of each member along with, daily KWH reads, daily peak demands, read-ins, read-outs, disconnect capability at select locations, better customer relations with bill explanations, load control (by EKPC), limited

outage notification, and reduction of contracted meter readers. The system has required the addition of technical staff for operating and maintaining in addition to the cost per meter installation, 24-month average, rising from \$173.33 in 2008 to \$259.93 in 2012, a 50% increase.

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.

Response: Inter-County Energy currently plans to review its communications system needs in 2014 and if feasible, install a new system in 2015. The key issues we will be reviewing in 2014 are data and bandwidth needs that would possibly support our AMI, SCADA, fleet management, mobile office, and other In 2015 Inter-County Energy plans to review the requirements forecasted systems. and feasibility of a SCADA system. It is projected this will be a two year installation project if approved that would be completed by year end 2017. After which, Inter-County Energy will reassess our system and members' needs to forecast which smart grid system would best meet our needs. However, all of our planning is hinged upon any legislative changes that may occur.

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.

Case No. 2012-00428

Response: One DA system was installed prior to December 31, 2012 and that is our AMI system described in response to question 98 of this request for information.

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

Response: Two DA systems, advanced communications system and a SCADA system.

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

Response: Unknown at this time.

101. With regard to VoltA/AR Optimization, provide the following:

a. the number of VoltA/AR Optimization systems installed as of December 31, 2012, along with the associated benefits realized.

Response: A Volt/VAR system is in place at Inter-County Energy to sustain distribution voltage levels, reduce losses and improve power factor. However, it does not have communications capabilities or controllable switching qualifying it as a Smart Grid system.

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

Response: Zero, none forecasted.

c. the total number of VoltA/AR Optimization systems to be installed when the VoltA/AR Optimization system is completely deployed.

Response: Zero, none forecasted.

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

Case No. 2012-00428

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

Response: None

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

Response: One system, controlling 14 substation locations and one main headquarters dispatch. Forecasted installation date 2016-2017 if approved.

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

Response: It would be one system with 14 substations. Each substation consists of metering, regulators and recloser points of data acquisition and control. Currently there are no plans to control outside of the substations.

103. As it relates to Dynamic Pricing (where rates are established hourly throughout the day) Tariffs or TOD 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: Inter-County Energy currently has 84 members utilizing the Schedule 1-A Farm & Home Marketing (Electric Thermal Storage) Rate. This is the only TOD Tariff offered by the cooperative at the present time.

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

Response: This rate is offered to members who utilize "off-peak" heating equipment (ETS) only. Time clocks on these units are programmed to shift element charging times to off peak hours: May–September, 10pm to 10am; October–April, 12 Noon to 5pm and 10pm to 7am.

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

Response: Unable to answer definitively. ETS units are usually installed as a supplement to an existing heating system, replacement of an existing fossil fuel or resistance type system, or as the heating source for additional living space such as a basement or other type of renovated space.

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

Response: No findings or conclusions reached.

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

Response: Inter-County Energy has worked with industry professionals to create cyber security standards including policies that deal with Identity Theft Red Flag Prevention, Use of Cooperative Communications Systems and Equipment as well as Code of Ethics and Whistleblower Policies.

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: Inter-County Energy feels that the lack of interoperability standards has been an issue in almost every facet of utility operations for many years. Though improving, Smart Grid equipment and software are still strongly proprietary and given the developmental stage that it is in, any interoperability will be driven by the unique needs of the cooperative and the systems that are chosen.

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: Inter-County Energy references the response to PSC request #106 submitted by EKPC and adopts that response as its own.

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: Inter-County Energy references the response to PSC request #107 submitted by EKPC and adopts that response as its own.

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: Inter-County Energy references the response to PSC request #108 submitted by EKPC and adopts that response as its own.

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: Inter-County Energy references the response to PSC request #109 submitted by EKPC and adopts that response as its own.

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: Inter-County Energy references the response to PSC request #110 submitted by EKPC and adopts that response as its own.

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: Inter-County Energy supports the Green Button initiative and its objective of improving efficiencies and allowing members greater flexibility in their ability to conserve energy and reduce their carbon footprint. Therefore, in preparing for future changes in members needs and regulations, ICE did install a two-way system which has the capability to support various TOU tariffs as well as in home displays.

112. Refer to the Roush Testimony on behalf of Kentucky Power, DMR Exhibit.

 Provide a similar exhibit containing a list of time-differentiated rates available to your customers.

Response: Please see Exhibit - 1

EXHIBIT - 1

Inter-County Energy

Time-Based Metering Tariff

Tariff	Description of Service / Provision	Currently In Effect	Commission Case	Order Date
Residential				
Schedule 1-A	Farm & Home Marketing Rate (ETS)	Х	2010-00503	5/31/11

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CASE NO. 2012-00428

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

INTER-COUNTY ENERGY RESPONSES

All Electric and All Gas utilities shall respond to the following questions:

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: Inter-County Energy uses the Landis+Gyr Focus ALF as its single phase meter and the General Electric KV2C for all non-residential meters; all meters are electromechanical. The company has an AMI system manufactured by Landis+Gyr, aka TS2. This system has allowed us to collect proper phasing and location of each member along with, daily KWH reads, daily peak demands, read-ins, read-outs, disconnect capability at select locations, better customer relations with bill explanations, load control (by EKPC), limited outage notification, and reduction of

contracted meter readers. There are no plans for changing metering type or configuration.

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:

Response: Yes

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

Response: Approximately 3 complaints.

b. how the complaints were addressed by the utility.

Response: Some were merely phone conversations whereas a simple explanation of why the meters were replaced and how the technology helps both the utility and member. Others were responded to by letters explaining the technology and the company's explanation of change.

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

Response: Inter-County Energy does not feel that the member should be able to opt out without having to bear all expenses incurred in obtaining and processing their meter reading.

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.

Response: Members who opt-out of the AMI metering process should be expected to pay a monthly charge based on the cost of reinstating the manual meter reading and billing process.

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

Response: No benefit could be expected if the member is not participating in the AMI metering program. In fact, the member would be at a disadvantage because manual meter reading leaves opportunities for misreads, estimations, longer than 30-day read cycles and can result in more questions about usage during a read period.

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.

Response: Any number of opt-out members could affect the benefits of an AMI metering system since member services, along with system reliability, are enhanced because of the capabilities of an AMI system.

115. In testimony, each utility cited cyber security as an area of concern related to the implementation of Smart Grid technologies. Provide and describe your company's policy regarding cyber security or the standard your company has adopted governing cyber security. 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 cyber security issues and concerns.

Case No. 2012-00428

Response: Inter-County Energy has worked with industry professionals to create cyber security standards, including policies that deal with Identity Theft Red Flag Prevention, Use of Cooperative Communications Systems and Equipment, as well as Code of Ethics and Whistleblower Policies.

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

Response: Please refer to the response for question 114c.

CERTIFICATION

David Phelps, Vice-President of Operations, being duly sworn, states that he has prepared the responses to the Commission Staff's First Request for Information to Inter-County Energy Cooperative for questions 98 through 116 in Case No. 2012-00428 dated February 27, 2013, and that the responses are true and accurate to the best of his knowledge, information and belief formed after a reasonable inquiry.

David Phelps, Vice-President of Operations Inter-County Energy Cooperative Corporation

Subscribed and sworn to before me by David Phelps as Vice-President of Operations of Inter-County Energy Cooperative Corporation this 19th day of March 2013.

BLIC STATE OF KENTUCKY COUNTY OF BOYLE

My Commission Expires: July 15, 2013

Certificate of Service and Filing

An original plus 14 copies of Inter-County Energy's responses to Case No. 2012-00428, PSC Commission Staff's First Request For Information, was respectfully filed and sent on March 19, 2013 via FedEx Next Day Delivery to Mr. Jeff Derouen, Executive Director, Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40601. A copy of the same was mailed via First Class U.S. Mail on March 19, 2013 to the following:

Mark Martin VP Rates & Regulatory Affairs Atmos Energy Corporation 3275 Highland Pointe Drive Owensboro, KY 42303

Judy Cooper Manager, Regulatory Services Columbia Gas of Kentucky, Inc. 2001 Mercer Road P. O. Box 14241 Lexington, KY 40512-4241

Lonnie E. Bellar VP – State Regulation Kentucky Utilities Company 220 W. Main Street P. O. Box 32010 Louisville, KY 40232-2010

Ranie Wohnhas Managing Director, Reg & Finance Kentucky Power Company 101 A Enterprise Drive P. O. Box 5190 Frankfort, KY 40602

Mark David Goss Goss Samford, PLLC 2366 Harrodsburg Road Suite B130 Lexington, KY 40504

Honorable Iris G. Skidmore 415 W. Main Street Suite 2 Frankfort, KY 40601 Rocco D'Ascenzo Senior Counsel Duke Energy of Kentucky, Inc. 139 East 4th Street, R. 25 At II P. O. Box 960 Cincinnati, OH 45201

John B. Brown Chief Financial Officer Delta Natural Gas Company, Inc. 3617 Lexington Road Winchester, KY 40391

Ed Staton VP – State Regulation and Rates Louisville Gas and Electric 220 W. Main Street P. O. Box 32010 Louisville, KY 40202

Honorable Michael L. Kurtz Attorney at Law Boehm, Kurtz & Lowry 36 East 7th Street – Suite 1510 Cincinnati, OH 45202

David S. Samford Goss Samford, PLLC 2365 Harrodsburg Road Suite B130 Lexington, KY 40504

Jennifer B. Hans Assistant Attorney General's Office 1024 Capital Center Drive – Suite 200 Frankfort, KY 40601-8204

Certificate of Service and Filing

A copy of Inter-County Energy's responses to Case No. 2012-00428, PSC Commission Staff's First Request For Information, was emailed March 19, 2013 to the following:

Allen Anderson President & CEO South Kentucky RECC 925-929 N. Main Street Somerset, KY 42503 *allena@skrecc.com*

Debbie Martin President & CEO Shelby Energy Cooperative, Inc. 620 Old Finchville Road Shelbyville, KY 40065 *debbiem@shelbyenergy.com*

Burns E. Mercer President & CEO Meade County R.E.C.C. P. O. Box 489 Brandenburg, KY 40108-0489 *bmercer@mcrecc.com*

Michael L. Miller President/CEO Nolin R.E.C.C. 411 Ring Road Elizabethtown, KY 42701 *mmiller@nolinrecc.com*

Barry L. Myers Manager Taylor County RECC P. O. Box 100 Campbellsville, KY 42719 *bmyers@tcrecc.com*

G. Kelly Nuckols President/CEO Jackson Purchase Energy P. O. Box 4030 Paducah, KY 42002-4030 *kelly.nuckols@jpenergy.com* Carol H. Fraley President/CEO Grayson RECC 109 Bagby Park Grayson, KY 41143 *carol.fraley@graysonrecc.com*

Ted Hampton Manager Cumberland Valley Electric, Inc. Highway 25E Gray, KY 40734 *ted.hampton@cumberlandvalley.coop*

Anthony S. Campbell President & CEO East Kentucky Power Cooperative P. O. Box 707 Winchester, KY 40392-0707 *tony.campbell@ekpc.coop*

Larry Hicks President/CEO Salt River Electric Cooperative 111 West Brashear Avenue Bardstown, KY 40004 *larryh@srelectric.com*

Kerry K. Howard General Manager/CEO Licking Valley RECC P. O. Box 605 West Liberty, KY 41472 kkhoward@lvrecc.com

James L. Jacobus President/CEO Inter-County Energy Cooperative P. O. Box 87 Danville, KY 40423-0087 *jim@intercountyenergy.net* Paul G. Embs President/CEO Clark Energy Cooperative, Inc. 2640 Ironworks Road Winchester, KY 40391 *pembs@clarkenergy.com*

David Estepp President & General Manager Big Sandy R.E.C.C. 504 11th Street Paintsville, KY 41240-1422 *destepp@bigsandyrecc.com*

Carol Wright President & CEO Jackson Energy Cooperative 115 Jackson Energy Lane McKee, KY 40447 carolwright@jacksonenergy.com

Mark Stallons President & CEO Owen Electric Cooperative, Inc. P. O. Box 400 Owenton, KY 40359 *mstallons@owenelectric.com*

Mike Williams President & CEO Blue Grass Energy Cooperative 1201 Lexington Road Nicholasville, KY 40356 *mikew@bgenergy.com* Chris Perry President/CEO Fleming-Mason Energy 1449 Elizaville Road Flemingsburg, KY 41041 *cperry@fme.coop*

Bill Prather Farmers R.E.C.C. 504 South Broadway P. O. Box 1298 Glasgow, KY 42141-1298 bprather@farmersrecc.com

Billie J. Richert CFO, VP Accounting, Rates Big Rivers Electric Corporation 201 Third Street Henderson, KY 42419-0024 *billie.richert@bigrivers.com*

Gregory Starheim President & CEO Kenergy Corporation P. O. Box 18 Henderson, KY 42419 gstarheim@kenergycorp.com