Goss Samford PLLC RECEIVED <u>t</u> A Attorneys at Law

MAR 20 2013

PUBLIC SERVICE COMMISSION

March 20, 2013

HAND DELIVERED

Mr. Jeff Derouen **Executive Director** Kentucky Public Service Commission 211 Sower Boulevard Post Office Box 615 Frankfort, Kentucky 40602

RE: PSC Case No. 2012-00428

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case, an original and fourteen copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the Commission Staff's First Request for Information, dated February 27, 2013. Also enclosed are an original and fourteen copies of EKPC's responses to the Attorney General's Initial Requests for Information dated February 27, 2013.

Please feel free to call if you have any questions.

Sincerely,

Mark barrid boxy Mark David Goss

Counsel

Enclosures

Cc: Parties of Record

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In re the Matter of:

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

RESPONSES TO ATTORNEY GENERAL'S INTIAL DATA REQUESTS TO THE COMPANIES DATED FEBRUARY 27, 2013

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

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Paul A. Dolloff, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney General's Initial Requests for Information in the above-referenced case dated February 27, 2013, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 20^{11} day of March 2013.

MY COMMISSION EXPIRES NOVEMBER 30, 2013 NOTARY ID #409352

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

CERTIFICATE

STATE OF KENTUCKY)) COUNTY OF CLARK)

Isaac S. Scott, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney General's Initial Requests for Information in the above-referenced case dated February 27, 2013, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Share J. Seat

Subscribed and sworn before me on this 20^{4} day ρ f March 2013.

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MY COMMISSION EXFIRES NOVENIBER 30, 2013 NOTARY ID #409352

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 1 RESPONSIBLE PARTY: Isaac S. Scott

Request 1.Since the Commission initiated Consideration of the New FederalStandards of the Energy Independence and Security Act of 2007, Administrative Case No. 2008-00408, has the company changed its position regarding Smart Grid? If so, how?

Response 1. EKPC would note that Administrative Case No. 2008-00408 did not involve the utilities taking a position regarding Smart Grid. Administrative Case No. 2008-00408 was initiated to investigate the adoption of new standards set forth in the Energy Independence and Security Act of 2007 which amended the Public Utility Regulatory Policies Act of 1978. Included in those standards was a new Smart Grid Investment standard and a Smart Grid Information standard. In its October 6, 2011 Order, the Commission initially adopted the Smart Grid Investment standard but declined to adopt the Smart Grid Information standard. Rehearing was requested and granted on the adoption of the Smart Grid Investment standard, and on July 24, 2012 the Commission determined it would not require the adoption of the Smart Grid Investment standard. Both standards were to be considered further in the current administrative proceeding.

EKPC and its Members were on record in Administrative Case No. 2008-00408 opposing the adoption of both the Smart Grid Investment standard and the Smart Grid Information standard. In the current proceeding, EKPC and its Members still oppose the adoption of these two Smart Grid standards. Please see the Direct Testimony of Isaac S. Scott, pages 5, 6, 9, and 10.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 2 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 2.</u> Are the technologies pertaining to the implementation of Smart Grid definitely known and proven?

Response 2. Please see the response to Request 16. In addition, EKPC would note that some of the technologies identified as Smart Grid are established, some of the technologies are in the developmental and testing stage, and some are in the conceptual stage. Because of the evolving nature of the Smart Grid, all possible or potential technologies are not currently known.

Request 2a. If yes, explain in detail every aspect from the use of each technology from the company to the end-user.

Response 2a. EKPC would first note that as a generation and transmission cooperative, it does not have retail end-users. In addition, EKPC would respectfully submit that the request is overly broad and it is not clear exactly what information is being sought. Consequently, EKPC cannot provide a reasonable response to the request.

Request 2b. If not, explain in detail what technologies are already advancing/improving as well as those that are envisioned on the immediate time horizon.

Response 2b.EKPC would respectfully submit that the request is overly broad andwould require extensive research which has not been performed to reasonably respond.Consequently, EKPC cannot provide a reasonable response to the request.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 3 RESPONSIBLE PARTY: Isaac S. Scott

Request 3. In light of resent catastrophic storms over the past ten years (for example, the various ice storms, tornadoes, and strong winds), which electric companies have experienced, and for which the company may ultimately have sought regulatory assets, can the company affirmatively state that its basic infrastructure, including all of its generation, transmission and distribution facilities, have proven to be reliable 24 hours a day, seven days a week, 365 days a week? If not, for each and every storm that it affected the utility in excess of two days, please provide the following:

Response 3. EKPC undertakes every effort humanly possible to maintain the reliability of its generation and transmission facilities; however, no system will be reliable 24 hours a day, 7 days a week, 365 days a year. EKPC would also note that it has not sought approval from the Commission of a regulatory asset related to catastrophic storms experienced over the past 10 years. EKPC is providing the requested outage information based on outages at our substations. EKPC would note that as a generation and transmission cooperative, we have no retail ratepayers.

<u>Request 3a.</u> The number of days before the company's last ratepayer's electricity was restored for each storm.

Response 3a. EKPC has identified two storms which produced outages on our system. The first storm resulted in substation outages from January 27, 2009 through January 31, 2009, for a total of five days. The second storm resulted in substation outages from March 2, 2012 through March 5, 2012, for a total of four days.

<u>Request 3b.</u> The average number of days, or hours if applicable, that the average ratepayer's outage lasted for each storm.

<u>Response 3b.</u> The total hours of the first storm outage were 75.29 hours. The total hours of the second storm outage were 73.95 hours.

<u>Request 3c</u>. The average financial loss for the average ratepayer for each storm, if known.

<u>Response 3c.</u> Since EKPC does not have any retail ratepayers, it cannot determine the average financial loss for the average ratepayer for each storm.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 4 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 4.</u> Does the company agree with the Attorney General that electricity is not considered a luxury service but a necessary commodity of modern life? If not, why not?

Response 4. EKPC believes that electricity is a necessary service that supports the modern lifestyle.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 5 RESPONSIBLE PARTY: Isaac S. Scott

Request 5. Does the company agree that the fundamental reliability of its electric grid- i.e., the delivery of electricity to the end-user 24/7/365- is paramount to the end-user's ability to monitor and/or conserve his/her demand or electricity consumption? If not, why not?

Response 5. EKPC respectfully disagrees with the premise of the question, that the electric grid reliability is superior to the end-user's desire to monitor and manage his need for electric service. EKPC views the two positions as complimentary rather than as a superior/inferior situation. Reliability of the electric grid is certainly important, but so too is the end-user's ability to monitor and manage his consumption.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 6 RESPONSIBLE PARTY: Isaac S. Scott

Request 6. Please state whether the company is aware of any cybersecurity breaches effecting the electric and gas industries that have either occurred in the United States or internationally. If the answer is in the affirmative, please explain the details of the breaches without exposing information that is not already in the public domain.

Response 6. EKPC performed a simple internet search concerning publicly reported cyber security breaches for utilities and that search yielded over 67,000 possible articles, stories, and reports. EKPC respectfully submits this request is overly broad and a reasonable response cannot be provided and consequently declines to prepare the requested information.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 7 RESPONSIBLE PARTY: Isaac S. Scott

Request 7. Please confirm that the company is aware that the prior United States Secretary of Defense Leon Panetta, in speaking on the vulnerability of the nation's electric grid with the consequential safety and security concerns that ensue, warned the Senate Appropriations Committee on Defense that the risk to the United States could even be considered the equivalent of a "digital Pearl Harbor".

Response 7.EKPC is aware of the statements made by former Secretary of DefensePanetta.

Request 7a. Is this concern of the vulnerability of the nation's electric grid shared by the company? If not, why not?

Response 7a. EKPC is concerned about the security of the electric grid and has put an emphasis on meeting the NERC CIP Standards to protect its security.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 8 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 8.</u> With regard to cybersecurity in general, can the company unequivocally confirm that its system reliability is not vulnerable to a cybersecurity attack? If not, what could be the consequences? Please explain in detail as much as possible for the following:

- a. the company, and
- b. the company's ratepayers.

Response 8a-b. EKPC cannot "unequivocally confirm" the invulnerability of our system reliability. EKPC believes it has minimized its exposure to a cyber attack through the implementation of its NERC CIP program. EKPC is certain that the Attorney General understands and appreciates the sensitive nature of any questions concerning the exposure of system reliability to cyber security attack. Consequently, any statements concerning the vulnerability to cyber security attack would violate this sensitivity, and EKPC respectfully declines to respond.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 9 RESPONSIBLE PARTY: Isaac S. Scott

Request 9. Please provide the names of the standards, protocols or policies which the company observes and/or implements in its maintaining its system reliability from cybersecurity threats.

Response 9. Please see EKPC's response to PSC Request 104.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 10 RESPONSIBLE PARTY: Isaac S. Scott

Request 10. Please provide copies of the standards, protocols or policies which the company observes and/or implements in its maintaining its system reliability from cybersecurity threats.

Response 10. Please see EKPC's response to PSC Request 104.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 11 RESPONSIBLE PARTY: Isaac S. Scott

Request 11. With regard to cybersecurity in general, can the company unequivocally confirm that its ratepayers' privacy of data cannot be compromised or otherwise divulged to any individual or entity not associated with the company, or a qualified third-party which has issues a non-disclosure statement or the ratepayers? If not, what could be the consequences? Please explain in detail as much as possible for the following:

- a. the company, and
- b the company's ratepayers.

Response 11a-b. As a generation and transmission cooperative, EKPC does not have retail ratepayers. However, please see EKPC's response to PSC Request 104.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13REQUEST 12RESPONSIBLE PARTY:Isaac S. Scott

Request 12. If a qualified third-party that has agreed to a non-disclosure statement and obtains ratepayers' private information, what guarantees exist that the information will not be disclosed, whether intentionally or unintentionally?

Response 12.As a generation and transmission cooperative, EKPC does not haveretail ratepayers.Consequently, no qualified third party non-disclosure statements havebeen executed.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 13 RESPONSIBLE PARTY: Isaac S. Scott

Request 13. Please provide the names of the standards, protocols or policies which the company observes and/or implements in its maintaining its ratepayers' privacy data from cybersecurity threats.

Response 13. Please see EKPC's response to PSC Request 104.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 14 RESPONSIBLE PARTY: Isaac S. Scott

Request 14. Please provide copies of the standards, protocols or policies which the company observes and/or implements in its maintaining its ratepayers' privacy data from cybersecurity threats.

<u>Response 14.</u> Please see EKPC's response to PSC Request 104.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 15 RESPONSIBLE PARTY: Isaac S. Scott

Request 15. Given the vulnerability of the electric grid to cyberattacks, describe what analog (non-digital) means the company will have in place to insure reliability, including but not limited to the maintenance of legacy systems.

Response 15. While EKPC assures the Attorney General that it has developed plans and systems to address this possibility, because of the security issues disclosure of this information would raise, EKPC must respectfully decline to provide the descriptions requested.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13REQUEST 16RESPONSIBLE PARTY:Isaac S. Scott

<u>Request 16.</u> What are the company's estimated costs to invest in order to fully implement Smart Grid?

Response 16. EKPC respectfully disagrees with the assumption in the question that there is a clearly defined and established group of projects and investments that constitute "fully implemented" Smart Grid. As noted on page 9 of the Commission's October 6, 2011 Order in Administrative Case No. 2008-00408, the Smart Grid refers to a system that incorporates a range of technological options that provides certain enumerated functions or values. This range of technological options is still developing and evolving, so the exact options that will be selected and employed cannot be finalized. EKPC believes that the implementation of Smart Grid will be over time, on a project by project basis, and addresses the specific needs of each utility. Consequently, EKPC cannot provide a reasonable estimated cost for the full implementation of Smart Grid on its system.

Request 16a. Do any cost estimates include results of any modeling that may show the degree of exposure to the following risks: (a) hacking; (b) electronic magnetic pulses (EMPs, whether related to solar flares or otherwise); and/or (c) weather events? If so, provide a list of the modeling software used to produce any estimates, the scenarios and sensitivities examined, and any and all such results.

<u>Response 16a.</u> When considering any investment that should improve its infrastructure, whether Smart Grid related or not, EKPC attempts to consider and evaluate all quantifiable costs and risks. If risk situations can be estimated or modeled, EKPC certainly will undertake those evaluations and reflect the impacts of those situations in its cost estimates. However, determining the degree of exposure to hacking, electronic magnetic pulses, and weather events would be very difficult to quantify and model. As EKPC is unable at this time to provide a total estimated cost for the full implementation of Smart Grid, it is also unable to provide any detail concerning the components that would be included in those cost estimates, including any evaluation of the degree of exposure to specific risks.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 17 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 17.</u> Please explain in detail what benefits, if any, the company expects its ratepayers to realize because of Smart Grid?

Response 17. As noted in the response to Request 16, there is not a clearly defined and established group of projects and investments that constitute fully implemented Smart Grid. Consequently, EKPC cannot provide a detailed list of ratepayer benefits associated with the full implementation of Smart Grid. Expected ratepayer benefits will depend on the particular Smart Grid project under consideration at that time. The evaluation and review of any proposed Smart Grid project would include the identification of any direct or indirect benefits to ratepayers.

Request 17a. Does the company believe that societal benefits are to be considered in evaluating benefits? If so, detail those societal benefits and how they may be used in evaluations? If not, why not?

<u>Response 17a.</u> Please refer to page 6 of the Direct Testimony of Isaac S. Scott, where EKPC and its Members have stated that they do not believe societal benefits should be included when evaluating the reasonableness of a proposed Smart Grid investment.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 18 RESPONSIBLE PARTY: Isaac S. Scott

Request 18 Would the company agree to strict limits and/or caps on ratepayer costs? If not, why not?

Response 18. EKPC would not agree to strict limits or caps on the costs associated with the implementation of any Smart Grid project or technology. If a proposed Smart Grid project has been thoroughly evaluated and determined to be a cost-effective and a reasonable option to address a particular need, then utilities should be able to expect to recover all actual costs associated with the project. The inability to recover reasonable costs associated with cost-effective Smart Grid projects will likely result in the project not being deployed.

In addition, as a member-owned cooperative, EKPC does not have a separate group of shareholders or investors to turn to fund these projects. Our member-owners in turn are also member-owned cooperatives, who also do not have a separate group of shareholders or investors who could help fund Smart Grid projects.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 19 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 19.</u> Would the company agree to allow ratepayers to opt-out of smart meter deployment? If not, why not?

<u>Response 19.</u> While the ability to opt-out of a Smart Meter deployment is primarily an issue for our Members, EKPC does have concerns about permitting opt-out. If the Smart Meter deployment is in the evaluation stage, the ability to opt-out will negatively affect the cost/benefit analysis for the project. If the Smart Meter deployment has been completed, the ability to opt-out will result in the utility incurring additional costs to separately read the opted out customer meter. Also, the utility's ability to manage outages using the Smart Meter technology could be diminished, depending on the extent to which customers have opted out.

As EKPC and its Members are member-owned cooperatives, we are very sensitive to this issue. While we want to be responsive to our members and offer them choices where reasonable, permitting customers to opt-out of a Smart Meter deployment will result in additional costs that will have to be recovered from the customer opting out. Please see EKPC's response to PSC Request 66 for a summary of EKPC's Members' experience to date with opt-out requests.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 20 RESPONSIBLE PARTY: Isaac S. Scott

Request 20. Can the company quantify measureable and significant benefits that the ratepayers will realize, including a monetary quantification of net savings (if any) to ratepayers?

Response 20. As noted in the response to Request 16, there is not a clearly defined and established group of projects and investments that constitute fully implemented Smart Grid. Consequently, EKPC cannot quantify measureable or significant benefits ratepayers would realize resulting from the full implementation of Smart Grid. Expected ratepayer benefits will depend on the particular Smart Grid project under consideration at that time. The evaluation and review of any proposed Smart Grid project would include the identification of any direct or indirect benefits to ratepayers.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 21 RESPONSIBLE PARTY: Isaac S. Scott

Request 21. Please explain in detail what detriments, if any, the company expects its ratepayers to realize because of Smart Grid? Include in the explanation both new costs as well as stranded costs.

Response 21. As noted in the response to Request 16, there is not a clearly defined and established group of projects and investments that constitute fully implemented Smart Grid. Consequently, EKPC cannot explain in detail what detriments are expected for ratepayers because of Smart Grid. The specific impacts will be dependent on the particular Smart Grid project that is considered and deployed. However with the deployment of a Smart Grid project, it would be reasonable to assume that there would be new costs recovered from ratepayers. If existing equipment or other assets are determined to be obsolete because of the Smart Grid deployment, there could be obsolescence or stranded costs to address as well.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 22 RESPONSIBLE PARTY: Isaac S. Scott

Request 22. What are the company's estimated costs which the company expects the ratepayers to realize?

Response 22.As noted in the response to Request 16, there is not a clearly defined andestablished group of projects and investments that constitute fully implemented Smart Grid.Consequently, EKPC cannot quantify an estimated cost that ratepayers could realize.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 23 RESPONSIBLE PARTY: Isaac S. Scott

Request 23. What are the company's estimated costs which the company expects its shareholders, if any, to realize? Include in the explanation both new costs as well as stranded costs.

<u>Response 23.</u> As noted in the response to Request 18, EKPC and its Members are member-owned cooperatives and do not have shareholders.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 24 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 24.</u> Does the company agree that its costs to invest and implement Smart Grid will be different than other utility companies? If not, why not?

<u>Response 24.</u> EKPC would agree that since the particular Smart Grid projects that it may ultimately deploy will not necessarily be the same projects as other utilities determine should be deployed, its costs to invest and implement a Smart Grid project would be different than other utilities.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 25 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 25.</u> Does the company agree that its ratepayers' benefits, whether financial or otherwise, may differ from one utility to another upon implementation of any Smart Grid technology? If not, why not?

<u>Response 25.</u> As noted in the response to Request 24, it is likely that the Smart Grid projects EKPC determines it should deploy will not necessarily be the same projects other utilities determine should be deployed. Consequently, similar to the project costs, any ratepayer benefits from the implementation of a Smart Grid technology would likely differ from utility to utility.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 26 RESPONSIBLE PARTY: Isaac S. Scott

Request 26. Can the company guarantee that the deployment of Smart Grid will not interfere with the regulatory compact whereby the ratepayers will receive safe, adequate and reliable service at fair, just and reasonable costs? If not, why not? Explain in detail.

Response 26. As a utility subject to the jurisdiction of the Commission, and pursuant to KRS 278.030, EKPC is obligated to furnish adequate, efficient, and reasonable service and may demand, collect, and receive fair, just, and reasonable rates for the services rendered or to be rendered. The deployment of any Smart Grid technology will not alter or supersede this obligation.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 27 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 27.</u> Answer the above question with the definition of "fair, just and reasonable costs" as being economically feasible for the end-user.

Response 27. EKPC respectfully submits that KRS 278.030(1) does not recognize fair, just, and reasonable rates as being economically feasible for the end-user. EKPC further notes it is not aware of any previous Commission decision where fair, just, and reasonable rates have been defined as being economically feasible for the end-user. Consequently, EKPC cannot provide the requested "guarantee of the regulatory compact" using a definition of fair, just, and reasonable rates as being economically feasible for the end-user.

Request 27a. Provide any cost-benefit analysis that the company has run or will run to make the determination of economically feasible to the end-user.

Response 27a. As part of its evaluation and consideration for deployment of any Smart Grid project, EKPC would take into consideration the impact the associated costs would have on ratepayers. However, EKPC does not perform cost/benefit analyses to determine if a rate is economically feasible to the end-user.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 28 RESPONSIBLE PARTY: Isaac S. Scott

Request 28. Regarding time of use (TOU) rates, can the company confirm that lowincome ratepayers will not be disproportionately affected more than non-low-income customers? If not, why not? (Provide in the answers in any studies, reports, analyses and relevant data.)

Response 28. As a generation and transmission cooperative, EKPC does not have retail ratepayers. However, EKPC would submit that it cannot state what the impact on low-income ratepayers would be concerning TOU rates without first performing an evaluation of the specific TOU rate being considered.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 29 RESPONSIBLE PARTY: Isaac S. Scott

Request 29. With regard to TOU rates, does the company have any history with any such programs? If so, explain in detail with particular facts as to:

- a. the number of customers who participated;
- b. whether they remained on the program;
- c. whether they saved money on their bills; and
- d. whether the customers ultimately reduced their usage.
- **Response 29.** Please see EKPC's responses to the PSC Requests 103 and 112.
ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 30

RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 30.</u> What proposals will the company present to deal with technological impediments to the broad use of Smart Grid, including but not limited to the following:

a. low and fixed-income individuals who do not have Internet resources at their home;

b. multiple forms of telecommunications technology used to access information (i.e., analog, cellular, VOIP); and

c. multiple and proprietary technology and software options in the market that may lead to issues of compatibility?

Response 30a-c. As noted in the response to Request 16, there is not a clearly defined and established group of projects and investments that constitute fully implemented Smart Grid. Consequently, it is not possible for EKPC to enumerate the proposals it would present to deal with technological impediments to the broad use of Smart Grid. EKPC does agree that the topics identified in parts (a) through (c) would need to be considered and addressed in any proposed Smart Grid or Smart Meter project.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 31 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 31.</u> Assume: Full deployment of Smart Grid at the residential ratepayer level consisting of a household with only Energy Star appliances, an HVAC system with at least a 15 SEERS rating, etc. and any smart grid apparatuses/equipment for interconnectivity with the electricity provider (including generation, transmission and distribution).

<u>Request 31a.</u> Does the company agree that if full deployment of the magnitude described in the above question occurs, the average residential ratepayer could experience a significant capital outlay?

<u>Response 31a.</u> EKPC would agree that the residential ratepayer could experience a significant capital outlay.

<u>Request 31b.</u> If so, what are the projected costs?

Response 31b. EKPC notes that there is insufficient information contained in the assumed scenario to adequately determine the level of projected costs.

<u>Request 31c.</u> If no costs are anticipated by the electric provider, why not?

Response 31c. Not applicable.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 32 RESPONSIBLE PARTY: Isaac S. Scott

Request 32. In regard to appliances, such as refrigerators or lighting, does the company agree that in the long run, it is cheaper for the end-user himself/herself to make that capital outlay for the purchase of the appliance or lighting than have the company provide the appliance(s) and build the costs into the company's ratebase which would then include a profit component for the company on an on-going basis?

Response 32. EKPC does not have sufficient information from this question to provide a reasonable response. EKPC has not performed the comparative analysis suggested by the question. Finally, neither EKPC nor its Members are engaged in a program where the utility provides the referenced appliance and then seeks recovery of that cost in the utility's rates. EKPC would note that based on its understanding of previous Commission decisions, it would be doubtful the Commission would permit the utility to recover costs from ratepayers for what would likely be deemed a non-regulated activity.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 33 RESPONSIBLE PARTY: Isaac S. Scott

Request 33. Confirm that the Smart Grid depends, at least in part, if not exclusively, on telephony (whether landline, fiber optic, wireless or VOIP) at the end-user level for the end-user to participate in his/her altering his/her electricity usage patterns or behavior.

<u>Response 33.</u> It is EKPC's understanding that Smart Meters depend on two-way communications between the utility and the retail ratepayer to allow that ratepayer to actively be involved in the management of his or her electricity usage.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 34 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 34.</u> If the answer to the above question is in the affirmative, confirm that limited access or even complete absence of access to telephony will interfere with, if not prevent, the deployment of the Smart Grid at the end-user level.

Response 34. It is EKPC's understanding that difficulties in establishing or maintaining two-way communications between the utility and retail ratepayer can negatively impact the deployment of Smart Meter technology.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 35 RESPONSIBLE PARTY: Paul A. Dolloff

<u>Request 35.</u> If the company intends to install infrastructure/software allowing for the transmission of Smart Grid/Smart Meter data over its distribution/transmission conductors and networks, provide estimates, or actual numbers, for the costs of doing so.

Response 35. When deemed necessary and cost effective, EKPC will install optical ground wires ("OPGW") for static lines when building new or upgrading existing transmission lines. OPGW is a conductor with a series of fiber optic cables embedded within the conductor. A portion of these fibers are dedicated to EKPC system protection and SCADA needs. The cost will be dependent on the circumstances of each installation.

EKPC maintains and updates/upgrades as necessary a digital microwave system. In 2013, EKPC will install a new microwave tower at an approximate cost of \$300,000.

To meet SCADA and system protection needs for new transmission switching substations, fiber is the preferred communication vehicle. Digital microwave will be used when expansion of the fiber network cannot be cost justified.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 36 RESPONSIBLE PARTY: Paul A. Dolloff

<u>Request 36.</u> Is there a standard communications' protocol that the company will deploy in its Smart Grid that will be interoperable regardless of the communications provider?

Response 36. EKPC has adopted and deployed the standard communications protocol DNP 3.0. As part of the development stage of any Smart Grid project it might propose, EKPC will take into consideration how proposed equipment will interface with this communications protocol.

Request 36a. If not, explain how the company plans on addressing any problems that might arise.

Response 36a. Not applicable.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 37 RESPONSIBLE PARTY: Isaac S. Scott

Request 37. If improved reliability is the goal of Smart Grid/Smart Meter, would it not be more cost-effective to invest in infrastructure hardening (for example, utilizing protocols and standards developed and implemented by many utilities in hurricane-prone regions)?

Response 37. Without a cost/benefit analysis of the options of a Smart Grid/Smart Meter project versus an investment in infrastructure hardening, EKPC cannot state which would be more cost-effective. In proposing any project to improve reliability, EKPC believes it is obligated to examine all reasonable options and select the option which is least cost or most cost effective.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 38 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 38.</u> Describe the company's plans to avoid obsolescence of Smart Grid/Smart Meter infrastructure (both hardware and software) and any resulting stranded costs. (This question and the subparts should be construed to relate to both the Smart Grid Investment Standard as well as the Smart Grid Information Standard.)

Response 38. As noted in the response to Request 16, there is not a clearly defined and established group of projects and investments that constitute fully implemented Smart Grid. Consequently, EKPC cannot describe its plans to avoid obsolescence of Smart Grid/Smart Meter infrastructure and any resulting stranded costs. The specific impacts will be dependent on the particular Smart Grid project that is considered and deployed. To the extent that a Smart Grid/Smart Meter project can be configured to minimize obsolescence of existing equipment, EKPC would do so. However, given the evolution of technology and its applications, it may not be possible to do so.

<u>Request 38a.</u> Describe who would pay for stranded costs resulting from obsolescence.

<u>Response 38a.</u> As noted in the response to Request 18, EKPC and its Members are member-owned cooperatives and do not have shareholders. Consequently, any Commission authorized recovery of stranded costs would come from ratepayers.

<u>Request 38b.</u> With regard to the recovery of any obsolete investment, explain the financial accounting that should be used (as in account entry, consideration of depreciation, time period involved, etc.).

Response 38b. EKPC believes that the financial accounting that should be used relating to the recovery of obsolete investments will be dependent upon the extent to which the Commission authorizes cost recovery. The type of investment rendered obsolete, the expected remaining life of the obsolete investment, and the cost associated with the obsolete investment will be factors to take into consideration.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 39 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 39.</u> With regard to interoperability standards, does the company agree that Smart Grid equipment and technologies as they currently exist, and are certain to evolve in the future, are not a one size fits all approach to the Commonwealth?

Response 39. EKPC understands that interoperability standards are to address the ability to integrate data and functions thus enabling the integration of communications and automation software with legacy systems. As noted in the response to Request 16, the Smart Grid refers to a system that incorporates a range of technological options that provides certain enumerated functions or values. While EKPC agrees that there is not a one size fits all approach for the deployment of Smart Grid in Kentucky, we respectfully fail to see the connection with the interoperability standards.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 40 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 40.</u> Is dynamic pricing strictly defined as TOU?

Response 40. On page 1 of its October 1, 2012 Order establishing the current administrative case, the Commission indicated that time-of-use pricing would be referred to as dynamic pricing. EKPC does not disagree with the Commission's statement.

Request 40a. If not, explain why not.

Response 40a. Not applicable

<u>Request 40b.</u> Is the company requesting that dynamic pricing be voluntary or involuntary, if at all?

Response 40b. EKPC and its Members believe dynamic pricing options should be made available to customers on a voluntary basis. Please see page 36 of the Direct Testimony of Isaac S. Scott.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 41

RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 41.</u> Please explain in detail whether the company has any dynamic programs in place in Kentucky.

a. For each program, provide the number of participants.

b. For each program, state whether those participants on aggregate have saved costs on their bills.

c. For each program, state whether those participants on aggregate have saved costs on their bills.

d. For each program, state whether each participant has saved costs on his/her/its bills. (The question is not intended to request any private identifier information.)

Response 41a-d. Please see EKPC's responses to the PSC Requests 103 and 112.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 42 RESPONSIBLE PARTY: Isaac S. Scott

Request 42.Does the company recommend the Commission to formally adopt theEISA 2007 Smart Grid Investment Standard? If not, why not?

Response 42. EKPC and its Members oppose the adoption of the Smart Grid Investment standard; please see the Direct Testimony of Isaac S. Scott, pages 5 and 6.

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EAST KENTUCKY POWER COOPERATIVE, INC. ADMINISTRATIVE CASE NO. 2012-00428 RESPONSE TO INFORMATION REQUEST

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 43 RESPONSIBLE PARTY: Isaac S. Scott

Request 43.Does the company recommend the Commission to formally adopt theEISA 2007 Smart Grid Information Standard? If not, why not?

Response 43. EKPC and its Members oppose the adoption of the Smart Grid Information standard; please see the Direct Testimony of Isaac S. Scott, pages 9 and 10.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 44 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 44.</u> Does the company recommend issuing an IRP Standard?

Response 44. EKPC respectfully notes that in ordering paragraph number 1 of its October 1, 2012 Order establishing the current administrative case, the Commission stated 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." An IRP Standard was not included by the Commission's Order.

In pages 19 through 25 of its October 6, 2011 Order in Administrative Case No. 2008-00408, the Commission announced its decision that it would not adopt the EISA 2007 IRP Standard, but instead had developed a Kentucky IRP Standard that would be adopted by all jurisdictional generating utilities. In pages 6 through 10 of its July 24, 2012 rehearing Order in Administrative Case No. 2008-00408, the Commission modified the adopted Kentucky IRP Standard in response to issues raised by the electric utilities during rehearing. The Commission required all jurisdictional generating utilities to adopt the modified Kentucky IRP Standard. EKPC submitted its statement of adoption on August 20, 2012.

Request 44a. If so, what concerns does the company have with a standard, including "priority resource," especially as it relates to cost-effectiveness?

Response 44a. Not applicable.

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Request 44b. What concerns would the company have with a standard as it affects CPCN and rate applications?

Response 44b. Not applicable.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 45 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 45.</u> Does the company agree that any investment in grid modernization infrastructure should be done before deploying TOU rates or dynamic pricing? If not, why not?

Response 45. EKPC does not agree that any investment in grid modernization infrastructure should be done before deploying TOU rates or dynamic pricing. Time-of-use rate options and dynamic pricing have been available long before the current discussion of Smart Grid and Smart Meter technology. Smart Meter technology simply provides additional opportunities for Time-of-use rate options as communications between the utility and the ratepayer are enhanced.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 46 RESPONSIBLE PARTY: Isaac S. Scott

Request 46. Regarding the Kentucky Smart Grid Roadmap Initiative (KSGRI), does the company believe that it provides the fundamental basis for the Commonwealth as a whole to proceed with Smart Grid given its lack of incorporating all electric utilities such as municipalities and the TVA, along with its distribution companies? If yes, please explain why. If not, please explain why not.

Response 46. EKPC and its Members do not believe that the KSGRI provides a fundamental basis for Kentucky as a whole to proceed with Smart Grid, with one of our reasons being the lack of incorporating all electric utilities in the analysis. Please see the Direct Testimony of Isaac S. Scott, pages 23, 24, and 34.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 47 RESPONSIBLE PARTY: Isaac S. Scott

Request 47. Does the company believe that the Commonwealth's electric industry is, or will become, so interconnected that all electric entities in any way involved or associated with the generation, transmission and/or distribution of electricity should be included and participate to some degree with Smart Grid if it is to come to fruition? If yes, please explain why. If not, please explain why not.

Response 47. EKPC believes that each utility in Kentucky should consider, evaluate, and possibly deploy Smart Grid projects only if those projects address needs of the utility and are found to be reasonable and cost effective alternatives. The degree to which the electric utilities in Kentucky become further interconnected should not be the sole reason for deploying a Smart Grid project.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 48 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 48.</u> Does the company believe that any Smart Grid Investment will trigger a CPCN case? If not, why not?

Response 48. To determine if a Certificate of Public Convenience and Necessity ("CPCN") is required for any Smart Grid investment, EKPC believes consideration of the administrative regulations must be performed. 807 KAR 5:001, Section 15(3), states "A certificate of public convenience and necessity shall not be required for extensions that do not create wasteful duplication of plant, equipment, property, or facilities, or conflict with the existing certificates or service of other utilities operating in the same area and under the jurisdiction of the commission that are in the general or contiguous area in which the utility renders service, and that do not involve sufficient capital outlay to materially affect the existing financial condition of the utility involved, or will not result in increased charges to its customers." EKPC believes that the provisions "sufficient capital outlay to materially affect the existing financial condition" and "will not result in increased charges to its customers" are the most likely provisions to result in the need for a CPCN case for a Smart Grid investment. Generally, Smart Grid investments have been characterized as representing significant capital outlays and having potentially significant impacts on customers' rates. However, on page 115 of the October 6, 2011 Order in Administrative Case No. 2008-00408, the Commission indicated that the need for a CPCN when complying with the Smart Grid Investment standard would be addressed in the current administrative proceeding.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 49 RESPONSIBLE PARTY: Isaac S. Scott

<u>Request 49.</u> Does the company believe that Dynamic Pricing should be economically feasible for the end-user and be supported by a cost- benefit analysis?

Response 49. As noted in the response to Request 40(b), EKPC and its Members believe dynamic pricing options should be made available to customers on a voluntary basis. Any proposed dynamic pricing option should include a description or discussion of the characteristics of the type of customer who would benefit from the option. There should also be an estimate of the bill impact if the customer were to select the option. Because these options should be made available on a voluntary basis, EKPC believes it would be difficult to perform a cost/benefit analysis on the proposed rate option. As noted in the response to Request 27, the economic feasibility for the end-user has not been established as the basis for rates to be fair, just, and reasonable in Kentucky.

ATTORNEY GENERAL'S INFORMATION REQUEST DATED 02/27/13 REQUEST 50 RESPONSIBLE PARTY: Isaac S. Scott

Request 50. If additional education is contemplated with the deployment of the Smart Grid, please explain in detail if known or contemplated.

Response 50. EKPC believes that additional education will be needed in conjunction with the deployment of Smart Grid; please see pages 13 and 15 of the Direct Testimony of Isaac S. Scott. However, the additional education needs will be dependent on the particular Smart Grid project being considered. As was noted in the response to Request 16, there is no clearly defined and established group of projects and investments that constitute "fully implemented" Smart Grid. Consequently, EKPC is not able to provide any details of the additional education needs at this time.