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March 30, 2012

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MAR 30 2012
PUBLIC SERVICE
COMMISSION

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HAND DELIVERED

Jeff R. Derouen
Executive Director
Public Service Commission
211 Sower Boulevard
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RE: Case No. 2011-00450

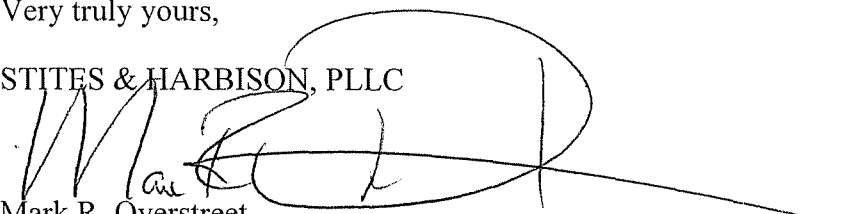
Dear Mr. Derouen:

Enclosed please find the original and ten copies of Kentucky Power Company's Responses to Commission Staff's Second Set of Data Requests.

A copy of the Responses is being served on all persons on the attached service list.

Very truly yours,

STITES & HARBISON, PLLC


Mark R. Overstreet

MRO

cc: Persons On Attached Service List

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COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

*PSC
Original*

IN THE MATTER OF

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PUBLIC SERVICE
COMMISSION

AN INVESTIGATION OF THE RELIABILITY
MEASURES OF KENTUCKY'S JURISDICTIONAL
ELECTRIC DISTRIBUTION UTILITIES

)
) Administrative Case
) No. 2011-00450

RESPONSES OF KENTUCKY POWER COMPANY TO
COMMISSION STAFF'S SECOND SET OF DATA REQUESTS

March 30, 2012

Kentucky Power Company

REQUEST

The following questions relate to the use of a five-year average of System Average Interruption Duration index ("SAIDI"), System Average Interruption Frequency Index ("SAIFI"), and Customer Average Interruption Duration Index ("CAIDI") on a circuit basis as a benchmark to determine the relative reliability of an individual circuit.

- a. In your opinion, is it reasonable for the Commission to require each utility to develop and report a five-year average SAIDI on a circuit-by-circuit basis as a benchmark for comparison purposes? Explain your answer.
- b. In your opinion, is it reasonable for the Commission to require each utility to explain why a particular circuit has a higher SAIDI than the utility's five-year average SAIDI for that circuit? Explain your answer.
- c. In your opinion, is it reasonable for the Commission to require each utility to explain the planned corrective measures for the circuit with a higher SAIDI than the five-year average? Explain your answer.
- d. In your opinion, is it reasonable for the Commission to require each utility to develop and report a five-year average SAIFI on a circuit-by-circuit basis as a benchmark for comparison purposes? Explain your answer.
- e. In your opinion, is it reasonable for the Commission to require each utility to explain why a particular circuit has a higher SAIFI than the utility's five-year average SAIFI for that circuit? Explain your answer.
- f. In your opinion, is it reasonable for the Commission to require each utility to explain the planned corrective measures for the circuit with a higher SAIFI than the five-year average? Explain your answer.

- g. In your opinion, is it reasonable for the Commission to require each utility to develop and report a five-year average CAIDI on a circuit-by-circuit basis as a benchmark for comparison purposes? Explain your answer.
- h. In your opinion, is it reasonable for the Commission to require each utility to explain why a particular circuit has a higher CAIDI than the utility's five-year average SAIDI for that circuit? Explain your answer.
- i. In your opinion, is it reasonable for the Commission to require each utility to explain the planned corrective measures for the circuit with a higher CAIDI than the five-year average? Explain your answer.

RESPONSE

- a. It is certainly possible to develop a report to display 5 year averages for each circuit. This information could be utilized to develop trends over a period of time however a circuit's performance for any given year can be highly variable due to events such as storms which are beyond our control. However, using this data other than to develop trends would be unreasonable due to the statements in parts b and c.
- b. We presently report the 10 Worst Performing Circuits (WPC) for SAIDI and SAIFI for each year. These 10 circuits represent about 5% of our total number of distribution circuits. If this is changed to reporting on every circuit which exceeds a 5 year average, then we could expect on an average year that half of our circuits would be above the average and half would be below the average. This may require us to report on 50% of our circuits and thus greatly increase the amount of engineering time required to do the analysis. We believe this requirement would be unreasonable.
- c. Developing corrective plans for 50% of our circuits will greatly increase the amount of engineering time required compared to developing plans for 10 WPC's. In addition the planned corrective measures for this many circuits would likely exceed our budget capabilities to implement such plans so we believe this requirement would be unreasonable on the Commission's part.
- d. Please see the Company's response to part a.
- e. It is not reasonable to compare SAIFI to the five-year average SAIDI for a circuit, as in the request. However, if the request was to compare the SAIFI and its five-year average, please see the Company's response to part b.

- f. Please see the Company's response to part c.
- g. Please see the Company's response to part a.
- h. It is not reasonable to compare CAIDI to the five-year average SAIDI for a circuit, as in the request. However, if the request was to compare the CAIDI and its five-year average, please see the Company's response to part b.
- i. The current Commission requirements do not include an analysis of the 10 Worst Performing circuits for CAIDI. Kentucky Power agrees with the current requirements and believes the inclusion of CAIDI would be unreasonable at this time.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

KRS 61.870 through KRS 62.884 address open records of public agencies and 807 KAR 5:001, Section 7, pertains to confidential material submitted to the Commission. Do you anticipate that some information submitted concerning the utility's circuits, whether with regard to SAIDI, SAIFI, CAIDI, or other reporting, could contain confidential, proprietary, or critical infrastructure information for which a petition for confidential information may also be submitted? Explain your answer. In your answer, provide examples of the type of information for which you may seek confidential protection.

RESPONSE

At this time Kentucky Power Company does not believe that the submittal of this information would require confidential protection. However, the Company believes that this information is not useful to customers and may result in customer confusion as to what it represents.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

Please describe your utility's current capacity to compose electronic documents.

- a. Is the utility familiar with or currently using Microsoft Office products such as MS Word or Excel? If so, include the name and version(s) of the software currently used.
- b. Describe your utility's current internet connectivity status, including connection speed.
- c. Is the utility familiar with the Commission's website?
- d. Has your utility registered on the PSC website and does it have a valid username and password? (This registration would currently be used for Electronic Case Filing, Annual Reports, and Tariff Filings).
- e. If recommended, would your utility have technical staff available to interface with the PSC Information Services Team to assist in the design and implementation of an automated process for uploading data to the Commission?

RESPONSE

- a. Yes, Kentucky Power is currently using Microsoft Office 2003 Professional which includes MS Word and Excel.
- b. Frankfort has DS1 connectivity at 1.0 Mbps; Ashland has OC3 ethernet connectivity at 96.7 Mbps; Hazard has ethernet connectivity at 6.4 Mbps; Pikeville has ethernet connectivity at 9.6 Mbps; Paintsville has ethernet connectivity at 1.5 Mbps; and Whitesburg has ethernet connectivity at 1.5 Mbps.
- c. Yes, Kentucky Power is familiar with the Commission's website.
- d. Yes.
- e. Yes.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

The following questions relate to the manner by which the utility tracks SAIDI, SAIFI, and CAIDI as stated in response to Items 2. (a) and (b) of the Commission's Order of January 11, 2012.

- a. This question applies to Kentucky Power Company ("Kentucky Power"), Big Sandy Rural Electric Cooperative Corporation, Blue Grass Energy Cooperative Corporation, Clark Energy Cooperative, Inc., Duke Energy Kentucky, Inc. ("Duke"), Farmers Rural Electric Cooperative Corporation, Fleming-Mason Energy Cooperative, Inc., Grayson Rural Electric Cooperative Corporation, Inter-County Energy Cooperative Corporation, Jackson Energy Cooperative Corporation, Jackson Purchase Energy Corporation, Kenergy Corp. , Kentucky Utilities Company ("KU"), Louisville Gas and Electric Company ("LG&E"), Meade County Rural Electric Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, Owen Electric Cooperative, Inc., Salt River Electric Cooperative Corporation, Shelby Energy Cooperative, Inc., South Kentucky Rural Electric Cooperative Corporation, and Taylor County Rural Electric Cooperative Corporation all of which reported that they tracked SAIDI, SAIFI, and CAIDI using an outage management system or an outage management system in conjunction with an Excel spreadsheet.
 - (1) Does your utility have the ability to export (or upload) the data to another data base or data system (including an Excel spreadsheet) maintained by the Commission? If not, explain why.
 - (2) If not identified elsewhere, identify the file formats to which your utility has the ability to export data.
- b. This question applies to Cumberland Valley Electric, Inc. and Licking Valley Rural Electric Cooperative Corporation, who reported that they tracked SAIDI, SAIFI, and CAIDI manually. Does your utility have the ability to export (or upload) the data to another data base or data system (including an Excel spreadsheet) maintained by the Commission? If not, explain why.

RESPONSE

- a. (1) Kentucky Power does have the ability to export data from its outage history database. Depending on the required format, the Company should be able to upload this data to a data system maintained by the Commission.

(2) This data is typically exported in an Excel format, but the Company can provide the information in most commonly used formats.
- b. N/A.

WITNESS: Larry J Pemberton

DUE TO MIS-NUMBERING IN ORDER THERE ARE NO QUESTIONS 5, 6, 7.

REQUEST

Explain how the SAIDI, SAIFI, and CAIDI indices influence the allocation of capital for system improvement projects within the utility. For the Investor-Owned Utilities Kentucky Power, Duke, KU, and LG&E, explain the manner in which the parent company influences the amount and allocation of capital for system reliability improvements

RESPONSE

Kentucky Power's parent company (AEP) does not directly establish the capital budget for Kentucky Power system reliability projects. Instead, AEP establishes a total annual capital budget for the entire AEP operating system. Each operating entity then submits a proposed capital budget. If the sum of all of the AEP operating entities capital budgets exceeds the AEP target for the entire system then the operating entities and AEP discuss adjustments to meet the AEP target.

Kentucky Power Company develops its capital budget for submission to AEP from the bottom up for each of the three functional areas (Generation, Transmission, and Distribution) of the Company. The three functional area budgets are combined and the total is submitted to AEP. Reliability related capital projects can be included within any of the three functional areas. The Company's budgeted capital expenditures include not only reliability projects, but also capital expenditures to establish customer service, capacity increases, public project relocations, third party requests, and storm restoration to name a few. As with any budget, these competing demands must be balanced.

The reliability indices are among the factors the Company considers in allocating distribution capital dollars. In addition to the reliability indices, the company considers other factors including which project is expected to provide the biggest improvement in reliability per dollar of cost. The amount of capital dollars allocated to reliability projects may fluctuate from year to year depending upon the level of capital investment required in other areas of Kentucky Power's operations, as well as the nature and extent of the reliability issues confronting the Company.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

Does the utility currently share other types of data with entities outside your organization? If yes, describe those other sharing systems and data, and with whom your utility shares the information.

RESPONSE

Kentucky Power outage and reliability data is shared with all AEP operating companies. This data is occasionally shared with organizations outside of AEP such as Institute of Electrical and Electronics Engineers (IEEE) and Southeast Electrical Exchange (SEE) in confidential, blind benchmark studies.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

Identify any disadvantages to making the reliability index numbers available on the Commission's website.

RESPONSE

The fact that most customers may not know their circuit identifier may lead to many unnecessary and unproductive inquiries. These inquiries may require additional resources or cause resources to be diverted from other activities.

Reliability indices are management tools. Knowledge of a particular circuit's reliability, either in isolation or compared to other circuits, does not provide the customer with useful information.

Reliability indices must be evaluated in light of the factors which can cause the circuits to perform differently. Customers may try to directly compare the reliability indices of one circuit to another circuit without knowing the factors which can naturally cause the circuits to perform differently. Some of these factors include urban versus rural, underground versus overhead, ties to other circuits versus no ties, etc. Most customers are unlikely to have this information.

Indices are averages, and each individual customer's actual experience may differ greatly from the circuit performance. For example, a customer in the station breaker zone can expect to see fewer outages than a customer who is beyond multiple line protection devices.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

Identify any advantages to making the reliability index numbers available on the Commission's website.

RESPONSE

At this time, Kentucky Power has not identified any advantages to making the reliability index numbers available on the Commission's website.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

In your opinion, what information would the utility's customers be most interested in having easily accessible? In your opinion, is it more appropriate to have this information available by circuit or system averages? How does your utility relay reliability information to your customers? Explain your answers.

RESPONSE

In the Company's experience, customers are most interested in reliability information that relates to their specific location. However, the Company cannot provide information to that level of detail. The Company can only provide information on a circuit average which may lead to confusion.

Most customers inquire about a current outage situation. They want to know when service will be restored, and that information is already available on Kentucky Power's website.

System averages for each district or area are as appropriate as circuit averages. Neither average exactly describes the customer's actual experience. Also few customers know from which circuit they are served; this information would have to be conveyed to customers in some manner for the circuit indices to make any sense to customers.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

If not identified elsewhere, describe the reliability information available for public review on your utility's website.

RESPONSE

Information pertaining to existing outages is available on Kentucky Power's website. Reliability indices information is not available.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

If the utility's customer requests information from the utility on reliability measures, do you provide it? Explain your answer.

RESPONSE

Upon request, Kentucky Power Company does provide reliability information to its customers. This typically takes the form of outage data affecting their individual service.

WITNESS: Larry J Pemberton

Kentucky Power Company

REQUEST

Does the utility have a suggestion for a better or more efficient method or manner for reporting or providing reliability information to the public?

RESPONSE

As provided in the response to Item 13, Kentucky Power Company does not provide reliability information to the public on its website. Upon request, Kentucky Power does provide individual outage history information to customers but not to the public at large.

WITNESS: Larry J Pemberton