

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

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ADMINISTRATIVE
CASE NO. 2011-00450

RESPONSE OF:

FLEMING MASON ENERGY COOPERATIVE, INC. ("FME") TO THE

SECOND REQUEST

"RELIABILITY MEASURES OF KENTUCKY'S JURISDICTIONAL ELECTRIC UTILITIES"

FOR COMMISSION'S ORDER 2011-00450

DATED MARCH 15, 2012

RECEIVED

MAR 28 2012

PUBLIC SERVICE
COMMISSION

The Witnesses for All Response Contained Hereinafter:

Chris Perry ~ FME

OR

Brandon Hunt ~ FME

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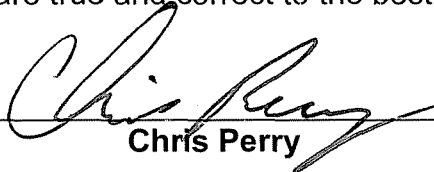
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VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF FLEMING)

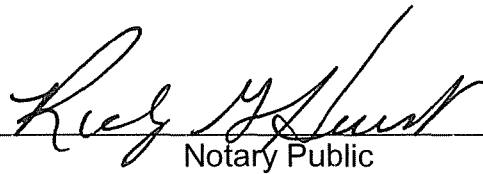
The undersigned, **Chris Perry**, being duly sworn, deposes and says that he is Manager, CEO for FME, and that he has personal knowledge of the matters set forth in the response for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Chris Perry

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21 day of MARCH 2011.

(SEAL.)



Notary Public

My Commission Expires:

28 JUNE 14

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF FLEMING)

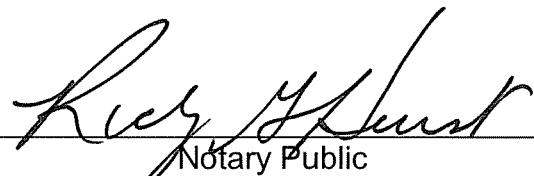
The undersigned, **Brandon Hunt**, being duly sworn, deposes and says that he is System Engineer for FME, and that he has personal knowledge of the matters set forth in the response for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Brandon Hunt

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21 day of MARCH 2011.

(SEAL)



Notary Public

My Commission Expires:

28 JUNE 14

FLEMING MASON ENERGY COOPERATIVE, INC.

CASE NO. 2011-00450

**Response to Commission Staff's Second Request for Reliability Investigation
Dated March 15, 2012**

Question No. 1

Witness: Chris Perry

- Q1. 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 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 higher SAIFI than the utility's five-year average SAIDI 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 SAIDI 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 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.

A1. a.) It is reasonable for the Commission to require a utility to develop five-year average indices for SAIDI, SAIFI, and CAIDI. With new outage management systems this data is much easier to develop. However, there is some concern about comparing historical averages for different circuits. There is little to no significance derived from simply looking at numbers without some appropriate context about the individual circuits. For example, the Fleming-Mason Energy distribution system has circuits that range from urban to very rural in heavily

wooded areas. Comparisons made between these two very different circuits are simply meaningless. If the Commission is considering using the 5-year average to make a comparison between an individual circuit and its average, then that may be of some benefit. The problems with this approach are the addition of new substations or feeding the circuit from a different direction will completely change the underlying calculations and comparisons.

- b.) It is reasonable for the Commission to require an explanation on reliability indices that may be higher than average as long as the number is statistically significant. For example, if the actual yearly SAIDI number is less than 5% from the historical average, then no explanation would be necessary. Small variations in indices will occur every year based on wind, storms, customers, and many other factors.
- c.) It is not reasonable to require corrective action based on a single year compared to a five-year historical average. One year does not create a trend and can be very deceptive. Weather patterns, the stock market, and reliability indices can be stochastic in nature. Without context and looking at trends, it is very possible that corrective measures may be proposed that does not address the real problem.
- d.) Refer to item a.
- e.) Refer to item b.
- f.) Refer to item c.
- g.) Refer to item a.
- h.) Refer to item b.
- i. Refer to item c.

FLEMING MASON ENERGY COOPERATIVE, INC.

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Question No. 2

Witness: Chris Perry

- Q2. 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 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.
- A2. **Some information could be used by other utilities or other state economic development groups to point to poor reliability as a reason not to relocate to a location served by a specific utility. Once again, in aggregate the information on reliability may not be damaging, but specific information for industrial parks may be misleading without contextual insight. I do anticipate that some information may be kept confidential.**

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Question No. 3

Witness: Brandon Hunt

- Q3. 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 Service Team to assist in the design and implementation of an automated process for uploading data to the Commission?

- A3.**
- a.) Yes, FME is familiar with Microsoft Office products and currently uses Microsoft Office 2010 version 14.0.6112.5000.**
 - b.) FME currently has a Windstream internet connection with upload and download speeds of 3 Mbps.**
 - c.) FME is familiar with the Commission's website.**
 - d.) FME has a registered username and password for the online outage notification only. However, for Electronic Case Filing, Annual Reports, and Tariff Filings, FME has previously used an engineering consulting firm's username and password to submit work for which they had assisted us.**
 - e.) Yes, technical staff would be available for an interface with PSC's Information Service team**

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Question No. 4

Witness: Brandon Hunt

- Q4. 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 and Excel spreadsheet) maintained by the Commission? If not, explain why.

A4. a.) FME's Milsoft OMS has the flexibility and capability to export all outage data into another data base including Microsoft Excel.

b.) N/A.

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Question No. 8

Witness: Chris Perry

- Q8. 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.
- A8. During the construction work plan process, Fleming-Mason Energy uses system reliability as one of the inputs into any projects to be included in capital allocation. There must be an understanding of the root causes of poor reliability and what is necessary to improve the statistics. Line relocation, conductor replacement, or increased maintenance expenditures are all evaluated to ensure that proper investments are made.**

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Question No. 9

Witness: Chris Perry

Q9. 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.

A9. System reliability data is shared with RUS. The data reported is the same as the data reported to the Commission.

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Question No. 10

Witness: Chris Perry

Q10. Identify any disadvantages to making the reliability index numbers available on the Commission's website.

A10. The IEEE reliability indices can be confusing and at times misleading to people not in the utility industry. I would be concerned that people would draw improper conclusions and not understand the qualitative factors driving reliability. Also, by presenting the data on the Commission website encourages comparison between utilities that are not similar in any way. A feeder with 4 customers per mile in a rural area cannot be compared to a feeder with 30 customers per mile in an urban area.

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Question No. 11

Witness: Chris Perry

Q11. Identify any advantages to making the reliability index numbers available on the Commission's website.

A11. The only advantage envisioned by making these indices available to the public on the website is that openness is perceived. There is nothing to hide with these numbers, but I still fear that the context may be lost in the translation.

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Question No. 12

Witness: Chris Perry

Q12. 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.

A12. In my opinion, customers are not overly concerned with historical outage numbers and indices. They are more concerned with, "When will my lights be back on?" The focus on customers is with the present and not historical averages. I have always found that when SAIDI numbers are discussed with customers that they are more interested in the number of times their specific home has been without power.

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Question No. 13

Witness: Chris Perry

Q13. If not identified elsewhere, describe the reliability information available for public review on your utility's website.

A13. Fleming-Mason Energy now uses twitter in outage situations as well as presenting an outage model and predictive map on our website. The outage model comes directly from our Milsoft Outage Management System.

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Question No. 14

Witness: Chris Perry

Q14. If the utility's customer request information from the utility on reliability measures, do you provide it? Explain you answer.

A14. Yes. There is nothing to hide and I have always found that when a dialogue is opened with customers about causes of outages and what we are doing to make the service more reliable that the customers are more understanding.

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Question No. 15

Witness: Chris Perry

Q15. Does the utility have a suggestion for a better or more efficient method or manner for reporting or providing reliability information to the public?

A15. No.