

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

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COMMISSION

 **Salt River Electric**

Responses to Second Information Request of  
the Kentucky Public Service Commission  
by Order dated March 15, 2012

**COMMONWEALTH OF KENTUCKY**  
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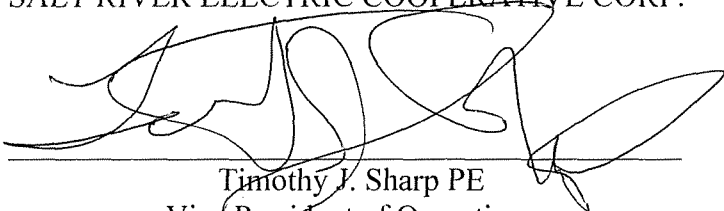
Commission Staff's **Second** Request for Information to  
All Electric Distribution Utilities

**CERTIFICATE OF PREPARATION**


STATE OF KENTUCKY )  
) )  
COUNTY OF NELSON )

Timothy J. Sharp, being duly sworn, states that he supervised the preparation of the responses to questions in Commission Staff's Second Request for Information dated March 15, 2012, in the above-named administrative case, and that the matters and items set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

SALT RIVER ELECTRIC COOPERATIVE CORP.

  
\_\_\_\_\_  
Timothy J. Sharp PE  
Vice President of Operations

Subscribed and sworn to before me on this 30<sup>th</sup> day of March, 2012.

  
\_\_\_\_\_  
Notary Public, KY State at Large

My commission expires:

12-16-2014

The Witness for Salt River Electric Cooperative Corporation responsible for responding to questions concerning the following information is

Timothy J. Sharp PE  
Vice President of Operations  
502.348.3931

1. 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.

In our opinion, the use of SAIDI on a circuit-by-circuit basis is not reliable for benchmark comparison purposes. SAIDI by definition is a system-wide number that relies upon a large population of data for validity. Although a few circuits will be large enough to provide the data necessary to make accurate comparisons, most will not. Additionally, flexibility between alternate feeds both for temporary and permanent solutions to problems will provide a high variability with respect to the circuit with which each customer is being served. Ultimately, this results in a large variation of SAIDI on individual circuits, but does not affect the system overall SAIDI.

- 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.

In our opinion, requiring each utility to explain the variation in a five-year average for SAIDI of an individual circuit creates an unnecessary burden. Over the five-year period, the circuit could change drastically as to customers served, length, and general composition. Additionally, isolated events will increase the likelihood that circuits will fall outside of the five-year average. The variations in a small sample size will require additional explanation with little benefit achieved.

- 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.

In our opinion, explaining corrective measures for circuits with a higher SAIDI than the five-year average is unnecessary. In most cases, any problems have been addressed prior to the yearly filing, or are isolated one-time events that do not

have a resolution. All long term improvements are addressed in ongoing work plans.

- 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.

In our opinion, the use of SAIFI on a circuit-by-circuit basis is not reliable for benchmark comparison purposes. SAIFI by definition is a system-wide number that relies upon a large population of data for validity. Although a few circuits will be large enough to provide the data necessary to make accurate comparisons, most will not. Additionally, flexibility between alternate feeds both for temporary and permanent solutions to problems will provide a high variability with respect to the circuit with which each customer is being served. Ultimately, this results in a large variation of SAIFI on individual circuits, but does not affect the system overall SAIFI.

- 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.

In our opinion, requiring each utility to explain the variation in a five-year average for SAIFI of an individual circuit creates an unnecessary burden. Over the five-year period, the circuit could change drastically as to customers served, length, and general composition. Additionally, isolated events will increase the likelihood that circuits will fall outside of the five-year average. The variations in a small sample size will require additional explanation with little benefit achieved.

- 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.

In our opinion, explaining corrective measures for circuits with a higher SAIFI than the five-year average is unnecessary. In most cases, any problems have been addressed prior to the yearly filing, or are isolated one-time events that do not have a resolution. All long term improvements are addressed in ongoing work plans.

- 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.

In our opinion, the use of CAIDI on a circuit-by-circuit basis is not reliable for benchmark comparison purposes. CAIDI essentially determines how long it takes to restore power to an individual customer once they are without service. The variations on these numbers can swing greatly depending on the specific instance or time of year. If historically on a circuit, all outages have been caused by lightning which only requires refusing equipment, then CAIDI could be low. One broken pole that requires a long time for restoration will skew the circuit numbers. Additionally, having outages during a snow storm when roads are impassable will skew numbers for the same outages at a different time of the year. Hence, a large data sample is needed for valid conclusions to be made. Although a few circuits will be large enough to provide the data necessary to make accurate comparisons, most will not.

- 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.

In our opinion, requiring each utility to explain the variation in a five-year average for CAIDI of an individual circuit creates an unnecessary burden. Over the five-year period, the circuit will be subject to individual events at random times that could drastically change the current years CAIDI. These isolated events will increase the likelihood that circuits will fall outside of the five-year average. The variations in a small sample size will require additional explanation with little benefit achieved.

- 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.

In our opinion, explaining corrective measures for circuits with a higher CAIDI than the five-year average is unnecessary. In most cases, any problems have been addressed prior to the yearly filing, or are isolated one-time events that do not have a resolution. All long term improvements are addressed in ongoing work plans.

2. KRS 61.870 through KRS 62.884 addresses 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.

Currently, we are not aware of any information with regard to SAIDI, SAIFI, or CAIDI that contains any confidential or proprietary information as submitted to the commission. However, we do feel that as more specific circuit information is requested this may become more of an issue with critical infrastructure or customer information.

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

We can provide most documents in electronic form.

- 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.

We are current with all Microsoft Suite products. We currently run Microsoft Office 10.

- b. Describe your utility's current internet connectivity status, including connection speed.

We currently have a 10 Mb/s connection to the internet.

- c. Is the utility familiar with the Commission's website?

Yes.

- 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.)

Yes.

- 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?

Yes.

4. 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, Big Sandy Rural Electric Cooperative, Blue Grass Energy Cooperative, Clark Energy Cooperative, Duke Energy Kentucky, Farmers Rural Electric Cooperative, Fleming-Mason Energy Cooperative, Grayson Rural Electric Cooperative, Inter-County Energy Cooperative, Jackson Energy Cooperative, Jackson Purchase Energy Corporation, Kenergy Corp., Kentucky Utilities Company, Louisville Gas and Electric Company, Meade County Rural Electric Cooperative, Nolin Rural Electric Cooperative, Owen Electric Cooperative, Salt River Electric Cooperative, Shelby Energy Cooperative, South Kentucky Rural Electric Cooperative and Taylor County Rural Electric Cooperative, 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 database or data system (including an Excel spreadsheet) maintained by the Commission? If not, explain why.

Yes.



- (2) If not identified elsewhere, identify the file formats to which your utility has the ability to export data.

We can manipulate data into most common formats required.

b. NOT A SALT RIVER ELECTRIC QUESTION

5. Explain how the SAIDI, SAIFI and CAIDI indices influence the allocation of capital for system improvement projects within the utility.

All indices are evaluated in conjunction with the overall work plan to achieve the most reliable system possible within the capital constraints. Several factors are directly addressed in the work plan and reliability is a primary component to this process. Additionally, reliability is monitored on a monthly basis and changes are made as necessary with the goal of continually improving reliability.

6. 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.

We share data with RUS, NRECA, and several like entities. Most data is transmitted electronically in a batch format.

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

Making raw reliability numbers available on the Commission's website would allow for outside parties to make comparisons or judgments without having all the information necessary. It is impossible to make accurate comparisons between companies or individual circuits without being intimately involved in the details of how those numbers came to be. Raw numbers on a website do not allow for the detail needed to accurately come to these conclusions.

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

Making the reliability numbers available on the Commission's website gives the impression of being more transparent. Although our reliability index numbers are currently available to the public, we require someone to talk with us to receive the data.

9. 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.

In our opinion, most customers are not interested in the reliability data as a number. They are concerned only when they have lost power. At that point, they want to know what caused it and when it will be restored. We try to relay that information to customers via our website, personnel, automated calling, and media outlets. The customers that seem to be interested in reliability numbers are mostly industrial in nature. These customers contact us directly and are handled one-on-one. If information is posted on the Commission's website, we do not see any advantage to posting individual circuit data. Most customers do not know from which circuit they are being fed. It is our belief that this would cause more confusion. If customers have specific concerns about their area, we would prefer to deal with them directly.

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

No specific reliability data is listed on our website.

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

Yes, we provide data as needed to the customer. We prefer to discuss this data one-on-one with the customer to address any concerns they have and to explain the information being supplied. Historically, most of these requests come from industries or their consultants.

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

No.

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