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PUBLIC SERVICE COMMISSION

Rate Case No. 2011-00450

2ND INFORMATION REQUEST FOR COMMISSION STAFF OWEN ELECTRIC COOPERATIVE INC

> 8205 Hwy 127 N PO Box 400 Owenton, KY 40359 502-484-3471



March 30, 2012

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

Subject: Commission Staff's Second Request for Information to All Electric Distribution Utilities

Dear Mr. Derouen

Please find enclosed the original and 10 copies of the information requested in the Commission Staff's Second Request for Information to All Electric Distribution Utilities Case No. 2011-00450.

Should you need additional information concerning this filing, please feel free to contact me.

Sincerely,

Mark A. Stallons President & CEO

mkm

Enclosures

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION OF THE RELIABILITY)
MEASURES OF KENTUCKY'S) ADMINISTRATIVE
JURISDICTIONAL ELECTRIC DISTRIBUTION) CASE NO. 2011-00450
UTILITIES)

COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION TO ALL ELECTRIC DISTRIBUTION UTILITIES

Each jurisdictional electric distribution utility ("utility"), pursuant to 807 KAR 5:001, is to file with the Commission the original and ten copies of the following information, with a copy to all parties of record. The information requested herein is due no later than March 30, 2012. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Each utility shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which

each utility fails or refuses to furnish all or part of the requested information, each utility shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention should be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request.

- 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.
- 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 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 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.
- 2. 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.

- 3. 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?
- 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 ("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 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.
- 8. 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.

9. 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.

10. Identify any disadvantages to making the reliability index numbers

available on the Commission's website.

Identify any advantages to making the reliability index numbers available 11.

on the Commission's website.

12. 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.

13. If not identified elsewhere, describe the reliability information available for

public review on your utility's website.

14. If the utility's customer requests information from the utility on reliability

measures, do you provide it? Explain your answer.

15. Does the utility have a suggestion for a better or more efficient method or

manner for reporting or providing reliability information to the public?

Jeff Derouen

18cl by And Dera **Executive Director**

Public Service Commission

P.O. Box 615

Frankfort, KY 40602

cc: Parties of Record

Administrative Case No. 2011-00450

Allen Anderson Manager South Kentucky R.E.C.C. 925-929 N. Main Street P. O. Box 910 Somerset, KY 42502-0910 Ted Hampton General Manager Cumberland Valley Electric, Inc. Highway 25E P. O. Box 440 Gray, KY 40734 Barry L Myers Manager Taylor County R.E.C.C. 625 West Main Street P. O. Box 100 Campbellsville, KY 42719

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Honorable Thomas C Brite Attorney At Law Brite & Hopkins, PLLC 83 Ballpark Road P.O. Box 309 Hardinsburg, KENTUCKY 40143-030 Kerry K Howard President & CEO Licking Valley R.E.C.C. P. O. Box 605 271 Main Street West Liberty, KY 41472 G. Kelly Nuckols President & Ceo Jackson Purchase Energy Corporation 2900 Irvin Cobb Drive P. O. Box 4030 Paducah, KY 42002-4030

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Mr. David Estepp President & General Manager Big Sandy R.E.C.C. 504 11th Street Paintsville, KY 41240-1422 Burns E Mercer Manager Meade County R.E.C.C. P. O. Box 489 Brandenburg, KY 40108-0489 William T Prather President & CEO Farmers R.E.C.C. 504 South Broadway P. O. Box 1298 Glasgow, KY 42141-1298

Carol Hall Fraley President & CEO Grayson R.E.C.C. 109 Bagby Park Grayson, KY 41143 Michael L. Miller President & CEO Nolin R.E.C.C. 411 Ring Road Elizabethtown, KY 42701-6767 Donald R Schaefer Jackson Energy Cooperative Corporation 115 Jackson Energy Lane McKee, KY 40447 Mark Stallons President Owen Electric Cooperative, Inc. 8205 Highway 127 North P. O. Box 400 Owenton, KY 40359

Michael Williams Senior Vice President Blue Grass Energy Cooperative Corp. 1201 Lexington Road P. O. Box 990 Nicholasville, KY 40340-0990

Ranie Wohnhas Managing Director Kentucky Power Company 101A Enterprise Drive, P.O. Box 5190 Frankfort, KENTUCKY 40602

Melissa D Yates Attorney Denton & Keuler, LLP 555 Jefferson Street P. O. Box 929 Paducah, KENTUCKY 42002-0929

Affiant, James Petreshock, states that the answers given by him to the foregoing
questions are true and correct to the best of his knowledge and belief.
James Petreshock, Manger of System Operations
Subscribed and sworn to before me by the affiant, James Petreshock, this day of March, 2012.
Notary Melesset Modre State-at-Large
My Commission expires 44, 2015.

Affiant, James Bridges, states that the answers given by him to the foregoing questions are true and correct to the best of his knowledge and belief.

James Bridges, VP of Engineering

Subscribed and sworn to before me by the affiant, James Bridges, this 30th day of March, 2012.

Notary <u>Hellish Kullar</u> State-at-Large My Commission expires <u>Jorel</u>, 14, 2015.

	i	

Page 1 of 4 Witness: James Petreshock

Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

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.

Response:

OEC would like to preface the answers for question 1 with the fact that in order to properly calculate the reliability indices on a feeder level, in accordance with IEEE STD 1366-2003, the Major Event Day calculation must be performed at the feeder. While this is technologically feasible for OEC, this may be an unjust burden on other utilities without the technical or personnel resources to complete this task.

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.

Response:

No. While calculating the five (5) year average SAIDI per feeder is within our abilities, OEC believes that the system changes on a feeder level will violate core assumptions within IEEE STD 1366-2003. Short term and longer term feeder reconfigurations for reasons such as voltage support, blink reduction, and construction related reconfigurations can impact SAIDI more noticeably than the entire system and therefore violates the assumption of stability over a five (5) year time frame specified by IEEE STD 1366-2003 (Section B.7).

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 utilities five-year average SAIDI for that circuit? Explain your answer.

Response:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide explanations for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

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Witness: James Petreshock

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.

Response:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide planned corrective actions for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

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.

Response:

No. While calculating the five (5) year average SAIFI per feeder is within our abilities, OEC believes that the system changes on a feeder level will violate core assumptions within IEEE STD 1366-2003. Short term and longer term feeder reconfigurations for reasons such as voltage support, blink reduction, and construction related reconfigurations can impact SAIFI more noticeably than the entire system and therefore violates the assumption of stability over a five (5) year time frame specified by IEEE STD 1366-2003 (Section B.7).

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.

Response:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide explanations for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

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Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

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.

Response:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide planned corrective actions for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

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.

Response:

No. While calculating the five (5) year average CAIDI per feeder is within our abilities, OEC believes that the system changes on a feeder level will violate core assumptions within IEEE STD 1366-2003. Short term and longer term feeder reconfigurations for reasons such as voltage support, blink reduction, and construction related reconfigurations can impact CAIDI more noticeably than the entire system and therefore violates the assumption of stability over a five (5) year time frame specified by IEEE STD 1366-2003 (Section B.7).

h. In your opinion, is it reasonable for the Commission to require each utility to explain why a particular circuit has a higher CAIDI then the utility's five-year average SAIDI for that circuit? Explain your answer.

Response:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide explanations for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

Question 1 Page 4 of 4 Witness: James Petreshock

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:

No. The inherently random nature of outages will result in, on average, 50% of feeders performing below the five (5) year average and 50% performing above the five (5) year average. Therefore, utilities would need to provide planned corrective actions for, on average, 50% of their feeders per year. For OEC alone, this would entail nearly 55 feeders.

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Witness: James Petreshock

2. 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 in formation 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

Response:

confidential protection.

Yes. A significant percentage of OEC's load is from commercial and industrial loads that are located on the periphery of our service territory with transmission provided by an entity other than East Kentucky Power Cooperative. Information related the service quality in these locations, if made public, could be used in a manner that would negatively affect OEC.

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Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

3.	Ple	ase describe your utility's current capacity to compose electronic documents.
	a.	Is the utility familiar with or currently using Microsof Office products such as MS Word or Excel? If so, include the name and version(s) of the software currently used.
		Response:
		Yes. MS Office 2007 products
	b.	Describe your utility's current internet connectivity status, including connection speed.
		Response:
		OEC maintains an internet connection four (4) T1 circuits with a 6MB bandwidth.
	c.	Is the utility familiar with the Commission's website?
		Response:
		Yes.
	d.	Has your utility registered on the PSC website and does it have a valid username and password? (This registration would currently be uses for Electronic Case Filing, Annual Reports, and Tariff Filings).
		Response:
		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?
		Response:
		Yes.

Page 1 of 1 Witness: James Petreshock

Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

- 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 ("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 -4- Administrative Case No. 2011-00450 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.

Response:

- 1) Yes.
- (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 (orupload) the data to another data base or data system (including an Excel spreadsheet)maintained by the Commission? If not, explain why.

Response:

- 2) Text (CSV, Tab delimitated), PDF, XLS
- 2b) N/A

Page 1 of 3 Witness: James Bridges

Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

8. Explain how the SAIDI, SAIFI, and CAIDI indices influence the allocation of capital for system improvement projects with 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:

SAIFI and SAIDI have a strong influence on capital allocation for system improvements at OEC. CAIDI is also measured, but its trends can sometimes be misleading. As a result, CAIDI does not directly influence improvement projects. OEC believes that with the reduction of SAIFI at higher levels than SAIDI, CAIDI numbers are not truly representative of the progress being made in overall reliability/quality of service improvement. By working to reduce SAIDI at a greater rate, OEC expects to see CAIDI numbers decline in the future. The Construction Work Plan (CWP) contains large amounts of activity directed at improving reliability and the overall quality of service.

Capital Improvement items influenced by SAIFI:

- Aged Conductor Replacement In OEC's present work plan, conductor replacement represents 15% of the overall cost. There are two main types of conductor replacement. The first type is aged overhead conductor. This is generally #6 ACWC that has served its useful life. While OEC's main feeders have mostly been upgraded to ACSR conductor over the past 30 years, a significant amount of short, single-phase taps consisting of aged copper conductor remain. A certain amount of this conductor is targeted in each CWP. The ongoing reduction in mainline exposure to aged conductor will improve SAIFI. The second type of conductor replacement is single-phase and three-phase underground cable. Conductor-related service interruptions tend to increase in areas where underground cable has been in service for 30+ years, The OEC Operations and Engineering departments work together to target problem areas for both overhead and underground conductor.
- Feeder Hardening Five years ago, OEC began a program where a feeder that had particularly poor annual performance data (10-worst) was evaluated from the substation to the first set of downline sectionalizing devices. This is the most critical portion of a feeder since any issue affecting it consequently affects the entire feeder. Reducing long spans via added structures, conductor separation and improvement in each structure's Basic Insulation Level (BIL) using fiber and polymer products have had positive impacts on SAIFI. OEC continues to address problem feeders in this fashion.
- Pole Replacement In a similar manner to aged conductor, OEC inspects, treats and sometimes
 rejects poles. An ongoing replacement program ensures that rejected poles are replaced in a
 timely manner.

Witness: James Bridges

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Owen Electric Cooperative Response to PSC Administrative Case No. 2011-00450

While SAIFI has shown a decline, SAIDI has held steadier. OEC believes that while the SAIFI reduction projects -listed above- have been successful, they have also resulted in a higher percentage of interruptions occurring farther out (downline) on the feeders. These downline areas often experience longer response times and are sometimes more difficult to troubleshoot.

Capital Improvement items influenced by SAIDI:

- SCADA Substation SCADA, Supervisory Control and Data Acquisition was installed in all OEC substations in 1988. In addition to monitoring voltage and transformer conditions, the system offers real-time data and control options for all of OEC's distribution feeder reclosers. A feeder outage is detected immediately. This system, along with strategicallyplaced switch (sectionalizing) points, has reduced OEC's SAIDI numbers over the past 24 years.
- Sectionalizing/Overcurrent Protection The application of additional line fuses, reclosers and switches are ongoing capital improvement items. These devices reduce the impact of a system fault and isolate (sectionalize) the faulted portion of the system. This sectionalizing can greatly reduce the time needed to safely troubleshoot the faulted portion, thereby reducing outage times.
- AMI In addition to its automated meter reading feature, the automated metering infrastructure system at OEC is used as an outage detection, outage restoration and system voltage indicator. Ongoing capital upgrades and replacements make this system, combined with substation SCADA, a very power tool in the reduction of SAIDI.
- Self-Healing (Smart Grid) Some locations on a typical distribution system will always remain harder than normal to access. Outlying rural areas or areas that are congested and difficult to travel through will slow coop restoration times. In 2010, OEC was award a State Stimulus grant (DEDI) for a self-healing project. OEC selected an area that had a large residential development in a suburban area that is located at the edge of its service territory. While the area is suburban and rather congested, the distribution feeder that it is served by is very rural and difficult to access. This combination generally extended restoration times. The self-healing system offers the other feeder in the area an opportunity to "heal" or serve this suburban area if there is a fault in the rural portion (of the normal feeder) heading back towards the substation. On November 13, 2011, a mainline device failed resulting in an entire feeder interruption. The SAIDI impact was greatly reduced via the first self-healing event in the project. The data logs indicated a 58 second restoration time. The result was a reduction of 70,292 member-minutes in interruption time. In a recent storm, the system reduced the interruption time by 97,469 member-minutes.

Page 3 of 3 Witness: James Bridges

Additional capital projects (aided by grants) are underway in an effort to continue to reduce **SAIDI** in the system's hard-to-access areas.

• Smart Fault Indicators – In its latest effort to reduce SAIDI, OEC is applying for a TVA grant (pilot) to explore the use of smart fault indicators (SFI). These devices will be placed at strategic points on the distribution system. Communications with the SCADA system will allow real-time, downline fault indication. If successful, capital expenditures in future construction work plans will likely include automated sectionalizing switches that will be used to isolate faulted sections and reconfigure feeders in order to greatly reduce SAIDI numbers for a given system interruption.

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Owen Electric Cooperative Response to PSC

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Witness: James Petreshock

9. 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:

OEC shares reliability information with NRECA as part of a nationwide comparison of Electric Cooperatives. Additionally, RUS requires reliability information as part of our Form 7 which is Submitted annually.

Question 10
Page 1 of 1
Witness: James Petreshock

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

Response:

Releasing the numbers on the public service commission's website can be a disadvantage for numerous reasons. The primary disadvantage is through misinterpretation of the data without knowing the properties of the systems which are being compared. Without the knowledge of the specific properties of a feeder or distribution system, such as the customers served, miles of overhead and underground primary, geographical information, system design criteria, voltage levels, etc. comparing reliability numbers is truly meaningless. Through misinterpretation of this information it is possible for special interest groups or members with malevolent intentions to discredit the utility for personal gain. Additionally, cross utility comparisons, without the aforementioned information, may lead to unreasonable conclusions.

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Witness: James Petreshock

11. Identify any advantages to making the reliability index numbers available on the Commissions website.

Response:

Publishing OEC's reliability data on the Public Service Commission's website has no perceived advantages.

Question 12 Page 1 of 1 Witness: James Petreshock

12. 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 OEC's opinion, our average non-industrial membership would not find SAIDI, SAIFI, CAIDI indices useful as they would not understand these numbers. We believe that if our membership wanted reliability information that this would best be presented as; the number of times that they were without power, the interruption duration, and what efforts are being taken to reduce these numbers. However, we currently do not have any software interfaces to share this information.

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Witness: James Petreshock

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

Response:

OEC does not currently have a reliability data published on our website, but we do provide a web portal that allows our membership to view current outages.

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Witness: James Petreshock

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

Response:

As previously stated, we do not proactively provide information to our members, but we do share information with members as applicable during a member's complaint.

Question 15
Page 1 of 1
Witness: James Petreshock

15. 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:

OEC does not, at this time, have any suggestions on methods of reporting reliability data with the public.