




OWEN Electric

A Touchstone Energy Cooperative 

January 11, 2007

Ms. Beth O'Donnell, Executive Director  
Public Service Commission of Kentucky  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, Kentucky 40602

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JAN 16 2007

PUBLIC SERVICE  
COMMISSION

**Re: Administrative Case No. 2006-00494**

**An investigation of the Reliability Measures of Kentucky's Jurisdictional  
Electric Distribution Utilities and Certain Reliability Maintenance Practices**

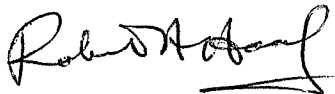
Dear Ms. O'Donnell:

Please find enclosed the original and seven (7) copies of the information requested in Administrative Case No. 2006-00494, An Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities and Certain Reliability Maintenance Practices for Owen Electric Cooperative Corporation.

Jim See, Manager of System Reliability, will be our witness for all items of Appendix A.

Should you need additional information concerning this filing, please contact this office.

Sincerely,



Robert A. Hood  
President/CEO

RH/sc

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN  
ADMINISTRATIVE CASE NO. 2006-00494

Dated December 12, 2006

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1. Does utility management measure, monitor, or track distribution reliability? JAN 16 2007  
a. If so, describe the measures used and how they are calculated. PUBLIC SERVICE  
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**We calculate the Number of Customer Interruptions and divide by the Miles of Line each month. The result is the number of Interruptions per Mile. Next, we divide the Consumer Hours of Interruption by the Average Number of Consumers. The result is the Average Hours Per Consumer. The Interruptions per Mile is added to the Average Hours Per Consumer. This gives us the Reliability Index on a monthly basis.**

- b. If reliability is monitored, provide the results for the past 5 years for system wide reliability.

**2001 = 2.25**

**2002 = 2.99**

**2003 = 2.99**

**2004 = 2.76**

**2005 = 2.71**

2. Are any outages excluded from your reliability measurement? If so, what criteria are used to exclude outages?

**Yes, major outages that have at least five percent of our consumers off and power supplier caused outages are excluded.**

3. Does the utility differentiate between momentary and sustained outages?  
a. What criteria are used to differentiate?

**Any interruption greater than five minutes is considered an outage, any interruption less than five minutes is considered a momentary outage.**

- b. Is information about momentary interruptions recorded?

**No.**

4. At what level of detail do the utility record customer outages, individual customer, by recloser, by circuit, by substation, etc.?

**Individual customers**

5. How does the utility detect that a customer is experiencing an outage?

**Our SCADA detects substation outages where a feeder is locked out. The determination of line section or individual outages comes through phone calls into our IVR system that feeds into our OMS system.**

6. How does the utility know when a customer is restored?

**Service restoration personnel reports the outage cleared and we do some consumer call backs.**

7. Are the causes of outages categorized and recorded? If they are, provide a list of the categories used.

**Yes**

If they are, provide a list of the categories used.

**See attachment "A"**

8. Can the utility record outage information for each circuit in the system, including each customer outage:

- a. Length of each disruption? **Yes**
- b. Number of customer affected by each disruption? **Yes**
- c. Number of customers served by each circuit? **Yes**
- d. Cause of each interruption? **Yes**

9. If the answer to any part of Item 8 is no, what would be required to enable the utility to collect this level of data?

- a. Provide an estimated cost to obtain this level of detail.
- b. Provide an estimated timeline to implement such upgrades.

10. Does the utility follow any type of standard (e.g., ANSI 300) for trimming trees in or near to the distribution right-of-way?

**It is the contractor's responsibility, with utility oversight, to work in accordance with all NESC, OSHA, and ANSI procedures pertaining to the work performed and the use of equipment and products.**

11. What criteria does the utility use to determine when vegetation maintenance or tree trimming is required?

**Owen Electric uses several factors:**

- 1. Emergency trimming is done on an as needed basis to eliminate hazard trees and limb line threats. OEC does not use "Hot-spotting" as a trimming practice.**
- 2. OEC is currently working on a 4-year trim and spray cycle, spraying the year following trimming.**
- 3. The cycle is adjusted up or down depending on type of vegetation present; soil type and fertility; density of trees and population; reliability reports; and customer and service reports.**

12. Is the tree trimming performed by utility personnel or by contractor?

**Contractor**

If by Contractor, describe the controls management uses to ensure trees are trimmed per utility requirements.

**OEC and Asplundh Tree Expert Co. have just signed a new 3-year contract for mechanical trimming and herbicide spraying of OEC rights-of-way. It is the right-of-way coordinator's responsibility to inspect and verify the work done is per standards.**

13. Is any portion of the utility system subject to local codes or ordinances regarding tree trimming or vegetation management?

**There are no codes as such in our nine-county area. There are a couple of townships with citizen groups interested in this matter that are notified by OEC and kept abreast of utility requirements.**

14. How often does the utility clear its distribution easements?

**OEC, at present, is working on a four-year cycle with some subdivisions and river areas being cycle-busters. We have added mechanical equipment that may shorten the cycle up to another year in the near future.**

15. How much has the utility spent on distribution easement clearing for each of the last five years, include cost per mile.

**2001= \$1,145,000/cost per mile is unknown  
2002= \$1,212,419/cost per mile is unknown  
2003= \$1,196,263/avg. cost/mi.= \$ 2496.00  
2004= \$1,262,456/avg. cost/mi.= \$ 2073.0  
2005= \$1,422,609/avg. cost/mi.= \$ 2192.00**

16. What annual amount of money is included in the current retail rates for distribution easement clearing?

**2001= \$1,145,000 or 1.40% Total cost of service.  
2002= \$1,212,419 or 1.44% Total cost of service.  
2003= \$1,196,263 or 1.29% Total cost of service.  
2004= \$1,262,456 or 1.18% Total cost of service.  
2005= \$1,422,609 or 1.16% Total cost of service.**

## Attachment “A”– OMS Categories with Description

<u>Category</u>	<u>Description</u>	<u>Code</u>
Cause	7.2/14.4KV TRF Changeout	40
Cause	Age	92
Cause	Aged Conductor Failure	41
Cause	Aircraft	105
Cause	Bad Transformer Jumper	100
Cause	Conductor Sag/Clearance	55
Cause	Connectors	58
Cause	Construction	31
Cause	Contamination	89
Cause	Contractor Installation	59
Cause	Corrosion/Abrasion	88
Cause	Decay	87
Cause	De-Energized for Repair	60
Cause	Electrical Overload	91
Cause	Emergency Backfeed	42
Cause	Extreme Cold	97
Cause	Extreme Heat	98
Cause	Faulty Material/Insulation	56
Cause	Fire	108
Cause	Flood	51
Cause	High Wind	50
Cause	Ice	44
Cause	Ice/Sleet/Frost Not Trees	94
Cause	Installation Fault	54
Cause	Large Animal	102
Cause	Lightning	93
Cause	Line Vibration	99
Cause	Maintenance	32
Cause	Major T-Storm	52
Cause	Material/Equipment Fault	53
Cause	Moisture	90
Cause	Public Accidents	106
Cause	Sleeves	57
Cause	Small Animal/Bird	101
Cause	Snow	43
Cause	Tree Cut On Line	109
Cause	Trees and Ice	95
Cause	Trees-Other	96
Cause	Underground Dig-In	110
Cause	Unknown	111
Cause	Vandalism	107
Cause	Vehicle/Machinery	104
Cause	Woodpecker	103
Equipment Failure	Anchor	83
Equipment Failure	Connector	74
Equipment Failure	Crossarm	71
Equipment Failure	Cutout	79

Equipment Failure	Guy Wire	84
Equipment Failure	Hot Line Clamp	73
Equipment Failure	Insulator	72
Equipment Failure	Jumper	115
Equipment Failure	Lightning Arrestor	78
Equipment Failure	Line Fuse	118
Equipment Failure	None	82
Equipment Failure	Overhead	113
Equipment Failure	Pole	70
Equipment Failure	Recloser	80
Equipment Failure	Sleeve	77
Equipment Failure	Transformer Fuse	114
Equipment Failure	Transformer	76
Equipment Failure	Underground	112
Equipment Failure	Voltage Regulator	81
Equipment Failure	Wire	75
Outage Type	Age/Deterioration	5
Outage Type	Birds/Animals	7
Outage Type	Equipment/Installation	4
Outage Type	Major Storm	3
Outage Type	Member/Public	85
Outage Type	Power Supplier	1
Outage Type	R.O.W. Preventable	119
Outage Type	R.O.W. Unpreventable	116
Outage Type	Scheduled	2
Outage Type	Unknown	86
Outage Type	Weather	6
What Is Out	Circuit Switcher	20
What Is Out	Customer Responsible	29
What Is Out	Fuse, Line	22
What Is Out	Fuse, Transform	23
What Is Out	Jumper	24
What Is Out	Recloser Device	21
What Is Out	Service	28
What Is Out	Substation Fuse	13
What Is Out	Substation OCR	117
What Is Out	Supplier Power	10
What Is Out	Transformer Device	26
What Is Out	Transmission Breaker	11
What Is Out	Wire Break	25