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 AND CERTAIN) RELIABILITY MAINTENANCE) PRACTICES)	ADMINISTRATIVE CASE NO. 2006-0494 RECEIVED
* * * * * *	JAN 122007 PUBLIC SERVICE COMMISSION

Comes Nolin Rural Electric Cooperative Corporation, and for its Response to the questions propounded in Appendix A to its Administrative Order dated December 12, 2006, states as follows:

- 1. <u>Question:</u> Does utility management measure, monitor, or track distribution reliability?
 - a. If so, describe the measures used and how they are calculated.
 - b. If reliability is monitored, provide the results for the past 5 years for system wide reliability.

<u>Response:</u> Nolin has a running annual record of outages, as required by RUS in annual <u>Form 7 Part G. Service Interruptions</u>. The outage records are separated into four categories, to give average hours per consumer by category and then a total per year is calculated.

Year	Power	Extreme	Prearranged	All Others	Total
	Supplier	Storm			
2001	0.05	0	0.01	0.86	0.92
2002	0.37	0	0.01	1.05	1.43
2003	0.18	0	0.03	0.48	0.69
2004	0.28	10.56	0.04	0.96	11.84
2005	0.02	0.7	0.11	0.81	1.64

The recent completion of the AMR system has proved an enhanced monitoring system. The new system gives away to electronic monitoring and provides a tool to gather data on an individual to system wide base.

2006 NOLIN RECC System Outage Data					
Month Name	MAIFI	SAIFI	SAIDI	ASAI	
January	1.944	0.793	74.151	0.998	
February	0.432	0.074	0.839	1.000	
March	1.320	0.096	5.174	1.000	
April	1.180	0.069	2.157	1.000	
May	3.853	0.404	9.731	1.000	
June	2.934	0.424	30.014	0.999	
July	2.364	0.175	5.564	1.000	
August	1.509	0.131	5.451	1.000	
September	3.608	0.473	47.428	0.999	
October	1.507	0.642	11.217	1.000	
November	0.396	0.189	58.726	0.999	
December	0.447	2,196	65.111	0.999	
Average	1.791	0.472	26.297	0.999	

2. <u>Question:</u> Are any outages excluded from your reliability measurement? If so, what criteria are used to exclude outages?

<u>Response:</u> No outage is intentionally excluded from the system outage data. However, every Breaker blink may have been identified on the data base before AMR was installed.

- 3. <u>Question</u>: Does the utility differentiate between momentary and sustained outages?
 - a. What criteria are used to differentiate?
 - b. Is information about momentary interruptions recorded?

<u>Response:</u> Substation breaker's information maintains an operational counter that can be downloaded for number of operations to define momentary blinks and outage time. The SCADA system would be used to identify feeder interruption. SCADA reports are generated for operation purposes.

4. <u>Question:</u> At what level of detail does the utility record customer outages (individual customer, by re-closure, by circuit, by substation, etc.)?

<u>Response:</u> With the AMR installed, Nolin has the capability of reporting all levels of system outages over a given time frame and down to a meter level.

5. <u>Question:</u> How does the utility detect that a customer is experiencing an outage?

<u>Response:</u> With the AMR system and phone service.

6. <u>Question:</u> How does the utility know when a customer is restored?

<u>Response:</u> With the AMR system and phone service.

7. <u>Question:</u> Are the causes of outages categorized and recorded? If they are, provide a list of the categories used.

<u>Response:</u> Completed outage reports are placed in a database. The database has a comment section as well as a location for cause: major storm, storm, lightning, wind, broken pole, man cause, breaker or fuse, substation or transmission outage, pre-arranged. and unknown.

- 8. <u>Question:</u> Can the utility record outage information for each circuit in the system including for each customer outage:
 - a. Length of each disruption?
 - b. Number of customers affected by each disruption?
 - c. Number of customers served by each circuit?:
 - d. Cause of each interruption?

<u>Response:</u> The AMR system will identify disruption time, number of consumers, and the circuit number. The outage database will identify the cause.

- 9. <u>Question:</u> 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.

Response: N/A.

10. <u>Question</u>: Does the utility follow any type of standard (e.g., ANSI A300) for trimming trees in or near to the distribution right-of-way?

<u>Response:</u> Distribution tree trimming follows the RUS standard, (which is similar to the ANSI A33).

11. <u>Question</u>: What criteria does the utility use to determine when vegetation maintenance or tree trimming is required?

<u>Response:</u> System inspection is used for identifying trouble areas. However, there is an on-going four (4) year cycle on right-of-way clearing. Chemical spraying is used where possible.

12. <u>Question</u>: Is the tree trimming performed by utility personnel or by contractor? If by contractor, describe the controls management uses to ensure trees are trimmed per utility requirements.

<u>Response:</u> Contractor does right-of-way clearing. Nolin has a full time employee that checks the progress and approves the most economical method of controlling long-term clearances.

- 13. <u>Question</u>: Is any portion of the utility system subject to local codes or ordinances regarding tree trimming or vegetation management?
 - a. Which areas of the system are covered by local codes or ordinances?
 - b. For each covered area, what do the local codes or ordinances require?

<u>Response:</u> No local codes are in place to prevent trimming.

14. <u>Question:</u> How often does the utility clear its distribution easements?

<u>Response:</u> The new line extensions are cut at the installation date. The system is cycled on four (4) years, but a separate 'hot spot memo' can be used to expedite a trouble area as needed.

15. <u>Question:</u> How much has the utility spent on distribution easement clearing for each of the last 5 years? Include the cost per mile expended.

Response:

Cost for cutting and spraying

Year	Trimming	Spraying	Total
2002	\$672,000	\$193,000	\$865,000
2003	\$621000	\$0	\$621,000
2004	\$675,000	\$46,000	\$721,000
2005	\$846,000	\$75,000	\$921,000
2006	\$1,010,000	\$0	\$1,010,000

16. <u>Question</u>: What annual amount of money is included in the current retail rates for distribution easement clearing?

<u>Response:</u> The percentage of right-of-way cost vs. total income is about 2%.

I have read the foregoing Responses and state that they are true and correct to the best of my knowledge and belief.

VINCE/HEUSER, Vice President of System Operations Nolin Rural Electric Cooperative Corp. 411 Ring Road Elizabethtown, Ky. 42701

STATE OF KENTUCKY COUNTY OF HARDIN

I, the undersigned, a Notary Public, do hereby certify that on this // #_____ day of January, 2007, personally appeared before me VINCE HEUSER, who being by me first duly sworn, subscribed to and acknowledged that he is the Vice President of System Operations of Nolin Rural Electric Cooperative Corporation, a Kentucky corporation, that he signed the foregoing document as Vice President of System Operations, and that the statements therein contained are true.

My commission expires <u>January 29, 2007</u>.

CERTIFICATE

This is to certify that an original and seven (7) copies of the above Response were mailed to the Public Service Commission of Kentucky, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602, 0615, this // day of January, 2007.

JOHN J. SCOTT, Whitlow & Scott 108 E. POPLAR STR., P.O. BOX 389 ELIZABETHTOWN, KY. 42702-0389 270-765-2179 ATTORNEY FOR NOLIN RURAL ELECTRIC COOPERATIVE CORP.

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