an e·on company

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January 12, 2007

RE: ***AN INVESTIGATION OF THE RELIABILITY MEASURES OF KENTUCKY'S JURISDICTIONAL ELECTRIC DISTRIBUTION UTILITIES AND CERTAIN RELIABILITY MAINTENANCE PRACTICES***
Adm Case 2006-00494

Dear Ms. O'Donnell:

Enclosed please find an original and seven (7) copies of Louisville Gas and Electric Company's ("LG&E") Response to Information Requested in Appendix A of the Commission's Order dated December 12, 2006.

Should you have any questions concerning the enclosed, please do not hesitate to contact me.

Sincerely,

Rick E. Lovekamp

cc: Parties of Record

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION OF THE RELIABILITY	)	
MEASURES OF KENTUCKY'S	)	ADMINSTRATIVE
JURISDICTIONAL ELECTRIC	)	CASE NO: 2006-00494
DISTRIBUTION UTILITIES AND CERTAIN	)	
RELIABILITY MAINTENANCE PRACTICES	)	

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
TO INFORMATION REQUESTED IN APPENDIX A
OF COMMISSION'S ORDER
DATED DECEMBER 12, 2006

FILED: JANUARY 12, 2006

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 1

Responding Witness: Paul G. Thomas

Q-1. 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.

A-1. Yes.

a. LG&E measures distribution reliability by utilizing performance metrics System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), and Customer Average Interruption Duration Index (CAIDI). The performance metrics are described as follows:

SAIDI is defined as the average electric service interruption duration in minutes per customer for the specified period and system.

SAIDI = sum of customers interruption durations / total number of customers served.

SAIFI is defined as the average electric service interruption frequency per customer for the specified period and system.

SAIFI = sum of total number of customers interrupted / total number of customers served.

Customer Average Interruption Duration Index (CAIDI) is defined as the average electric service interruption duration per interrupted customer for the specified period and system.

CAIDI = SAIDI / SAIFI = Sum of customer interruption duration / total number of customers interrupted.

b. The following table lists SAIDI, SAIFI, and CAIDI.

LG&E Distribution Reliability (Excluding Major Storms)			
Year	SAIDI	SAIFI	CAIDI
2001	51.06	0.834	61.26
2002	65.81	0.791	83.25
2003	84.73	0.908	93.33
2004	60.46	0.810	74.64
2005	101.74	1.175	86.58
2006	86.29	1.026	84.10

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 2

Responding Witness: Paul G. Thomas

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

A-2. Yes, major storms are excluded from Distribution Operations system reliability metrics reported in Question 1. A major storm is defined as a major outage event where restoration exceeds 24 hours in duration.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 3

Responding Witness: Paul G. Thomas

Q-3. Does the utility differentiate between momentary and sustained outages?

a. What criteria are used to differentiate?

b. Is information about momentary interruptions recorded?

A-3. Yes.

a. LG&E considers any outage under 5 minutes a momentary outage and any outage over 5 minutes a sustained outage.

b. Momentary interruptions are not recorded in the Outage Management System (OMS). Information about momentary interruptions is recorded by a Distribution Supervisory Control and Data Acquisition System (SCADA), where SCADA is available.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 4

Responding Witness: Paul G. Thomas

Q-4. At what level of detail does the utility record customer outages (individual customer, by re-closer, by circuit, by substation, etc.)?

A-4. Customer outages are recorded in an Outage Management System (OMS). The implementation of the OMS began in 2004 and was completed in 2004. All outages are reported and tracked by the OMS. By tracking incoming calls, the OMS predicts the system protective devices that have operated, and enables crews to be dispatched to the site. Outage records provide details by the following system levels: utility, operations center, local office, substation, circuit, interrupting device (breaker, re-closer, fuse), and individual customer.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 5

Responding Witness: Paul G. Thomas

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

A-5. Customers experiencing an outage will call into the company call center. The call centers, located in Lexington, Louisville, and Pineville, operate together as a single virtual call center. Customers may talk to a company representative or report the outage via an Integrated Voice Response Unit (IVRU). The outage information is entered into a Trouble Order Entry System (TOE) that serves the OMS.

System outages are also identified by SCADA, where available.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 6

Responding Witness: Paul G. Thomas

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

A-6. Restoration is reported by company personnel involved in the restoration process by notification to the Distribution Control Center. TOE is updated from the OMS and service restoration is confirmed by automated callbacks to the customer.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 7

Responding Witness: Paul G. Thomas

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

A-7. Yes, outage cause is categorized and recorded on each outage record. The following table lists the OMS causes.

OMS Outage Causes
Animal
Contractor / Other Utility
Company Contract Crew
Company Crew
Customer Equipment
Dig In – Company Crew
Dig In – Other
Equipment Failure
Fire
Lightning
Loose Connection
Other / Unknown
Overload
Planned Work Outage
Sag / Spacing
Tree Fell
Tree Growth
Tree Limb
Vehicle

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 8

Responding Witness: Paul G. Thomas

Q-8. 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?

A-8. a. Yes.

b. Yes.

c. Yes.

d. Yes.

LOUISVILLE GAS AND ELECTRIC COMPANY

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Question No. 9

Responding Witness: Paul G. Thomas

Q-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.

A-9. Not Applicable.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 10

Responding Witness: Paul G. Thomas

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

A-10. Yes. The following standards are utilized:

American National Standards Institute - ANSI A300,
National Electric Safety Code (NESC) - Section 218,
Occupational Safety and Health Act of 1970 (OSHA) Safety Standard 29 CFR 1910.269.

LOUISVILLE GAS AND ELECTRIC COMPANY

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Response to Commission's Order dated December 12, 2006

Question No. 11

Responding Witness: Paul G. Thomas

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

A-11. Cycle (time since the last trim) and reliability data are used to determine when tree trimming is required.

LOUISVILLE GAS AND ELECTRIC COMPANY

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Question No. 12

Responding Witness: Paul G. Thomas

Q-12. 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.

A-12. The vegetation management program is managed by company employees, most of whom are Certified Utility Arborists. The company contracts with two professional utility tree companies. The tree work is planned, coordinated, and inspected by company arborists. Contractor performance is measured by quality, safety, customer satisfaction, and productivity and evaluated on a quarterly and annual schedule.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 13

Responding Witness: Paul G. Thomas

Q-13. 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?

A-13. Yes.

a. The following cities have tree ordinances in the LG&E territory: Louisville, Anchorage, Indian Hills, and Druid Hills.

b. The ordinances require approval on removals over a specified diameter and to be notified before work begins. Company arborist contact local government officials, tree boards, and urban foresters to coordinate tree work.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 14

Responding Witness: Paul G. Thomas

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

A-14. The average cycle for 2005 was 4.92 years.

Calendar Year 2006 data will be provided when available.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

Response to Commission's Order dated December 12, 2006

Question No. 15

Responding Witness: Paul G. Thomas

Q-15. How much has the utility spent on distribution easement clearing for each of the last 5 years? Include the cost per mile expended.

A-15. The total company distribution easement clearing expense including storm restoration for each of the last 5 years:

Year	Tree Trimming Expense (Account 593004)+	Cost Per Mile
2001	$ 3,037,207	$ 2,901
2002	$ 3,650,551	$ 3,981
2003	$ 2,980,769	$ 5,113
2004	$ 4,658,940	$ 6,562
2005	$ 3,924,483	$ 4,224

+ Costs include company labor and non-labor (contractor).
Costs do not include capital related projects.

Calendar Year 2006 data will be provided when available.

LOUISVILLE GAS AND ELECTRIC COMPANY

ADMINISTRATIVE CASE NO. 2006-00494

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Question No. 16

Responding Witness: Kent W. Blake

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

A-16. In the last LG&E rate case filed in 2003 (Case No. 2003-00433), the amount included in the subject test year for electric tree trimming expenses was $3,206,088.