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Executive Director  
Kentucky Public Service Commission  
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APR 13 2007

PUBLIC SERVICE  
COMMISSION

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April 13, 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 ten (10) copies of Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") Testimony of Paul Gregory ("Greg") Thomas, in the above-referenced docket.

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 JURISDICTIONAL )**  
**ELECTRIC DISTRIBUTION UTILITIES AND ) CASE NO. 2006-00494**  
**CERTAIN RELIABILITY MAINTENANCE )**  
**PRACTICES )**

**TESTIMONY OF**  
**PAUL GREGORY (GREG) THOMAS**  
**VICE PRESIDENT, ENERGY DELIVERY-DISTRIBUTION OPERATIONS**  
**E.ON U.S SERVICES, INC.**

**Filed: April 13, 2007**

1 **Q. Please state your name and business address.**

2 A. My name is Greg Thomas. I am currently employed as the Vice President of Energy  
3 Delivery-Distribution Operations for E.ON U.S. Services, Inc., which provides  
4 services to Louisville Gas and Electric Company (“LG&E”) and Kentucky Utilities  
5 Company (“KU”) (collectively, the “Companies”). My business address is 820 W.  
6 Broadway, Louisville, Kentucky 40202. A complete statement of my education and  
7 work experience is attached to this testimony as Appendix A.

8 **Q. What is the purpose of your testimony in this proceeding?**

9 A. The purpose of my testimony is to respond to the questions raised by the Commission  
10 Staff in a hand-out distributed during the informal conference held in the above-  
11 captioned proceeding on March 8, 2007.

12 **Q. Handout No. 1 distributed by the Commission Staff describes several different**  
13 **types of tree pruning. Regardless of whether or not the Commission sets any**  
14 **tree trimming standards, should Through or V pruning, Side pruning, Under**  
15 **pruning, or Topping be allowed?**

16 A. Through pruning or V pruning, Under pruning, and Side pruning are accepted  
17 practices for KU and LG&E. However, topping is not an accepted practice and  
18 ultimately shortens the life of the tree. Research and documentation from the  
19 International Society of Arboriculture, Kentucky Division of Forestry, and University  
20 of Kentucky regards topping as a discredited practice.

21 **Q. If LG&E and/or KU do not own the property over which their distribution lines**  
22 **are located, what are the Companies’ legal rights as far as access to the property,**  
23 **and ability to trim trees?**

1 A. KU and LG&E very rarely own the property under its distribution lines in fee simple.  
2 Typically, KU's and LG&E's distribution lines can be found in (four) types of  
3 locations: (1) public rights-of-way, (2) express easements, (3) prescriptive easements  
4 and (4) platted easements. In public rights-of-way, KU and LG&E can access the  
5 area of the line from the right of way and can typically trim to the edge of the right of  
6 way subject to any limitations in the franchise or permit allowing KU and LG&E to  
7 be in the right of way. As noted in the Company's data responses, several cities have  
8 enacted ordinances placing limits on trimming in the public rights-of-way. Express  
9 easements (i.e., those easements actually granted in writing) almost universally  
10 contain language giving KU and LG&E a right of ingress and egress over the  
11 grantor's property (sometimes limited to established driveways and roadways where  
12 available) and the right to trim and cut trees in the defined area of the easement.  
13 KU's and LG&E's more recent easements also typically contain language giving the  
14 Company the right to trim and cut trees on the property that could present a danger to  
15 the line in falling even if they are outside the defined area of the easement.  
16 Prescriptive easements present the greatest challenge. A prescriptive easement is a  
17 concept very similar to adverse possession. Basically, where a use (i.e., operation and  
18 maintenance of an electric distribution line) continues uninterrupted in a visible  
19 manner without permission for a period of 15 years, the user obtains an easement by  
20 prescription to continue that use. In the case of electric lines, Kentucky courts have  
21 determined that a prescriptive easement includes the right to do those things  
22 necessary to maintain the line, such as ingress and egress and trimming trees. Platted  
23 easements are filed with a subdivision development plat as a designated space for

1 utilities. A platted easement includes the right to do those things necessary to  
2 construct, enlarge, and maintain the line, such as ingress and egress and trimming  
3 trees.

4 **Q. How are reliability metrics used to prioritize spending as KU and LG&E state in**  
5 **response to Item No. 1 of the Second Data Requests in this case?**

6 A. KU and LG&E use reliability metrics to identify priority areas for improvement. This  
7 data is reviewed to determine the causes associated with outages. Action plans are  
8 then developed and funding is assigned to improve performance for that specific area.

9 For example, if the primary cause of outages for an area is tree related, the  
10 area is evaluated by the arborist and the data is used along with the normal trim cycle  
11 schedule to allocate budget dollars to the operation centers. Reliability data is tracked  
12 from year to year to study the trends and to identify areas of improvement.

13 If animals are the primary cause of outages for a circuit, a reliability  
14 inspection is scheduled, work requests are identified to improve performance, and  
15 crews are scheduled to complete the varmint protection work.

16 If lightning is the issue, studies are done to determine the adequacy of  
17 lightning protection and additional lightning arresters or static wire protection is  
18 recommended.

19 **Q. Provide a relative sample of the reliability data extracted from the OMS as KU**  
20 **and LG&E note in response to Item No. 3 of the Second Data Requests in this**  
21 **case.**

1 A. KU and LG&E has included the following attachment that provides a sample of the  
2 reliability data that is extracted from OMS and analyzed to assist in determining  
3 reliability initiatives.

4 Exhibit PGT-1 – Circuit Reliability – 4 years 2003-2006

5  
6 **Reliability Reporting Requirement**

7 **Q. Is it appropriate for the Public Service Commission to require regular reporting**  
8 **of reliability information from all distribution utilities?**

9 A. In compliance with the Commission’s August 6, 2001 Order in Case No. 2001-104  
10 (Joint Application for Transfer of LG&E and KU in Accordance with E.ON AG’s  
11 Planned Acquisition of Powergen PLC) KU and LG&E are required to file service  
12 quality monitoring reports on a quarterly and annual basis that summarize SAIDI and  
13 SAIFI at the substation level for the previous year and a comparison to the previous  
14 5-year average. KU and LG&E feel it is appropriate to report system level reliability  
15 information to the Commission.

16 **Q. Should the PSC develop standardized criteria for recording and reporting**  
17 **reliability information?**

18 A. Should the Commission decide to require regular reporting of reliability information,  
19 it would be beneficial to establish standardized criteria. Criteria such as exclusions  
20 for major events should be considered.

21 The purpose of the standardized criteria for recording and reporting reliability  
22 information should be to provide consistency in the reporting, but may be impractical

1 for comparison of utilities due to diverse geographic characteristics and population  
2 density of the state.

3 **Q. Is it appropriate for the Commission to require reporting at a level smaller than**  
4 **the entire system (i.e. by substation or circuit)?**

5 A. System level reporting is more appropriate due to diverse geographic characteristics  
6 and population density differences associated with individual circuits.

7 **Q. Are there any concerns about sharing this information within the industry or**  
8 **with the public?**

9 A. There is no concern about sharing the system level SAIDI and SAIFI by utility within  
10 the industry, the public, or with the Commission.

11 **Q. Should major events be reported?**

12 A. Major events are typically considered uncontrollable by the utility. Tornados, high  
13 winds, and extreme ice loading create major events. Loss of service events are  
14 reported as required per 807 KAR 5:006 Section 26(1)(c) for loss of service for four  
15 (4) or more hours to ten (10) percent or 500 or more of the utility's customers,  
16 whichever is less. The utility is required to submit this information within two hours  
17 of the event to the Commission via the Outage Reporting System on the  
18 Commission's Web Application Portal.

19 KU and LG&E feels reporting of reliability data excluding major events  
20 provides a more accurate assessment of system performance that is under the utilities  
21 control. If reliability reporting is to include major events and is required by the  
22 Commission, the definition of a major event should be standardized and reported as a  
23 separate category of the indices.

**Reliability Performance Standard**

1  
2 **Q. Please comment on the appropriateness of a reliability performance standard.**

3 **An example of a performance standard is found in the RUS requirement of no**  
4 **more than five hours outage for the average customer for any reason, and no**  
5 **more than one hour caused by power supply.**

6 A. Performance standards should be applied consistently to all utilities. The  
7 establishment of a reliability performance standard for use by all electric utilities in  
8 Kentucky may be impractical due to each utility's unique operational circumstances,  
9 such as diverse geographic characteristics and population density.

10 **Q. Is it more appropriate to develop performance standards on a utility by utility**  
11 **basis or a circuit by circuit basis? What is the most appropriate level for**  
12 **applying performance standard requirements?**

13 A. Should the Commission develop performance standards, KU and LG&E feel the most  
14 appropriate level for applying a performance standard is at the utility system level.

15 **Q. Comment on appropriate requirement to respond to non-attainment of a**  
16 **performance standard, or in the alternative explain why a response to non-**  
17 **attainment is not necessary.**

18 A. If the Commission were to establish a performance standard, then KU and LG&E feel  
19 the Commission already has the existing statutory powers under KRS 278 to respond  
20 to any issues of non-attainment.

**Right-of-Way (ROW) Management**

1  
2 **Q. Please provide comments regarding the appropriateness of a PSC defined ROW**  
3 **management minimum standard.**

4 A. KU and LG&E have a program to effectively manage ROW clearance. Standard  
5 clearance parameters should not be established. Rigid standards prescribing the width  
6 of the right of way to be cleared are impractical to establish due to predictable  
7 customer/landowner resistance and available easement widths. A flexible multi-cycle  
8 strategy, combined with an effective vegetation management program, is a cost  
9 effective approach to right of way maintenance. KU's and LG&E's program includes  
10 a visual inspection by utility arborists who develop work plans to target trees that  
11 need to be trimmed or removed to prevent an outage as well as the flexibility to  
12 prescribe a different trim cycle by circuit that addresses growth and tree density for  
13 that circuit.

14 **Q. If such a standard were created, to what level of detail should it be defined?**

15 A. If the Commission were to create a standard, KU and LG&E feel the standard would  
16 need to accommodate the different types of easements and available easement widths,  
17 urban vs. rural areas, and any local codes or ordinances regarding tree trimming.

18 **Q. Does a PSC requirement give the utility any advantage when performing ROW**  
19 **maintenance?**

20 A. KU and LG&E have a process to secure right of way and address property owners  
21 who refuse to allow adequate tree trimming. Refusals are generally resolved by  
22 working with the property owner. In rare cases, legal action may be taken as  
23 necessary to provide safe reliable service.

1                   A PSC requirement coupled with a statute or local ordinance for a standard  
2 clearance minimum may give the utility some leverage in negotiating with the  
3 property owner.

4 **Q. Are there disadvantages?**

5 A. KU and LG&E would expect increased customer dissatisfaction and increased costs  
6 as a result of increased ROW clearance to meet a standard. A standard removes any  
7 flexibility the utility may exercise in executing its duties and may reduce efficiencies  
8 in the program.

9 **Q. Does this conclude your testimony?**

10 A. Yes.

VERIFICATION

COMMONWEALTH OF KENTUCKY )  
 ) SS:  
COUNTY OF JEFFERSON )

The undersigned, **Paul Gregory Thomas** being duly sworn, deposes and says that he is Vice President, Energy Delivery-Distribution Operations, for E.ON U.S. Services, Inc., that he has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

*Paul Gregory Thomas*  
\_\_\_\_\_  
PAUL GREGORY THOMAS

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 12<sup>th</sup> day of April, 2007.

*Kimberly Chubb*  
\_\_\_\_\_  
Notary Public (SEAL)

My Commission Expires:  
10-16-2008

## **APPENDIX A**

### **Paul Gregory (Greg) Thomas**

Vice President Energy Delivery-Distribution Operations  
E.ON U.S. Services, Inc.  
820 West Broadway  
Louisville, KY 40202  
(502) 627-4743

### **Education**

University of Tennessee, B.A. in Mechanical Engineering, 1979

### **Previous Positions**

LG&E Energy Services Inc. 2003 - 2007 - Director Energy Delivery  
Kentucky Utilities 2000-2003 - Director Distribution Operations  
Kentucky Utilities 1997-2000 - Regional General Manager  
Kentucky Utilities 1994-1997 - Division Vice President  
Kentucky Utilities 1992-1994 - Lexington District Manager  
Kentucky Utilities 1992 - Division Engineer  
Kentucky Utilities 1990 - 1992 Field Operations Coordinator  
Kentucky Utilities 1989 - 1990 Local Manager  
Kentucky Utilities 1986 - 1989 Customer Service Engineer  
Kentucky Utilities 1980 - 1986 Technical Engineer Substations



**Circuit Reliability - 4 Years 2003 - 2006**

					4 Year Average	
Overall Circuit Ranking	Total Circuit Miles OH,UG	3 Phase Miles OH,UG	Circuit	Jan 2007 OMS Custs	SAIFI	Total Interruptions
1	66.28	20.08	0311	890	5.707	5079
2	45.99	10.70	MK1298	1953	2.641	5158
3	21.29	9.66	0038	3184	1.823	5806
4	51.72	9.17	HK1234	1970	2.370	4668
5	20.98	5.02	WT1210	1730	2.282	3948
6	88.37	7.92	FM1257	1700	2.255	3833
7	22.52	8.06	MK1297	1851	2.063	3818
8	26.42	9.26	4407	678	3.425	2322
9	25.43	5.71	ML1283	1449	2.351	3407
10	18.97	5.81	LO1190	2243	1.771	3973