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PUBLIC SERVICE COMMISSION

Mr. Reggie Chaney
Director of Engineering
Kentucky Public Service Commission
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Frankfort, Kentucky 40602-0615

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State Regulation and Rates
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April 1, 2011

RE: ***An Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities and Certain Reliability Maintenance Practices*** **- Administrative Case No. 2006-00494**

Dear Mr. Chaney:

Enclosed please find Louisville Gas and Electric Company's and Kentucky Utilities Company's 2010 Annual Reliability Report pursuant to the Commission's Order dated October 26, 2007 in the above referenced matter.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

Rick E. Lovekamp

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	1.1	Louisville Gas and Electric Company
REPORT PREPARED BY	1.2	Nelson Maynard, Director Reliability
E-MAIL ADDRESS OF PREPARER	1.3	nelson.maynard@eon-us.com
PHONE NUMBER OF PREPARER	1.4	859-367-1107

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2.1	2010

SECTION 3: MAJOR EVENT DAYS

T_{MED}	3.1	6.485
FIRST DATE USED TO DETERMINE T_{MED}	3.2	1-Jan-05
LAST DATE USED TO DETERMINE T_{MED}	3.3	31-Dec-09
NUMBER OF MED IN REPORT YEAR	3.4	0

NOTE: Per IEEE 1366 T_{MED} should be calculated using the daily SAIDI values for the five prior years. If five years of data are not available, then utilities should use what is available until five years are accumulated.

SECTION 4: SYSTEM RELIABILITY RESULTS

Excluding MED

SAIDI	4.1	105.87
SAIFI	4.2	1.220
CAIDI	4.3	86.78

Including MED (Optional)

SAIDI	4.4	105.87
SAIFI	4.5	1.220
CAIDI	4.6	86.78

Notes:

1) All duration indices (SAIDI, CAIDI) are to be reported in units of minutes.
2) Reports are due on the first business day of April of each year
3) Reports cover the calendar year ending in the December before the reports are due.
4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, CAIDI, and T_{MED}

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 5: OUTAGE CAUSE CATEGORIES
Excluding MED

CAUSE CODE DESCRIPTION		SAIDI VALUE	CAUSE CODE DESCRIPTION		SAIFI VALUE
Animal	5.1.1	6.10	Animal	5.2.1	0.090
Construction	5.1.2	2.10	Construction	5.2.2	0.051
Lightning	5.1.3	16.71	Lightning	5.2.3	0.158
Non-Company	5.1.4	1.30	Non-Company	5.2.4	0.018
Unknown	5.1.5	19.51	Unknown	5.2.5	0.278
Overload	5.1.6	0.69	Overload	5.2.6	0.007
Planned Work	5.1.7	8.40	Planned Work	5.2.7	0.102
Trees	5.1.8	13.79	Trees	5.2.8	0.089
Utility Equip	5.1.9	30.03	Utility Equip	5.2.9	0.365
Vehicle	5.1.10	7.25	Vehicle	5.2.10	0.062

SECTION 6: WORST PERFORMING CIRCUITS

CIRCUIT IDENTIFIER		SAIDI VALUE	MAJOR OUTAGE CATEGORY
SP3302	6.1.1	2632.00	Trees
TT3313	6.1.2	2271.00	Trees
AL1377	6.1.3	983.00	Utility Equipment
SK1128	6.1.4	640.39	Trees
CL1405	6.1.5	516.86	Utility Equipment
BR1352	6.1.6	469.76	Utility Equipment
HC1434	6.1.7	457.75	Utility Equipment
TA1106	6.1.8	453.09	Trees
SK1127	6.1.9	449.88	Trees
CO1194	6.1.10	441.47	Utility Equipment

CIRCUIT IDENTIFIER		SAIFI VALUE	MAJOR OUTAGE CATEGORY
TT3313	6.2.1	12.000	Trees
SP3302	6.2.2	8.000	Trees
WP1104	6.2.3	5.809	Trees
AL1377	6.2.4	5.667	Utility Equipment
SM1360	6.2.5	5.631	Utility Equipment
ET1170	6.2.6	5.215	Animal
OK1272	6.2.7	4.753	Utility Equipment
HI1475	6.2.8	4.636	Non-Company
HC1294	6.2.9	4.002	Utility Equipment
MD1452	6.2.10	3.685	Utility Equipment

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

Additional pages may be attached as necessary

SECTION 7: VEGETATION MANAGEMENT PLAN REVIEW

The Companies' Vegetation Management Plan was submitted December 19, 2007 and is referenced to the Reliability Report submitted April 1, 2008. The Distribution Vegetation Management Program encompasses right of way maintenance for Louisville Gas and Electric Company and Kentucky Utilities Company (referred to as the "Companies"). The program is centralized and managed by a Forestry Manager and nine company Utility Arborists. All are certified arborists by the International Society of Arboriculture.

The Companies' plan is to maintain a proactive trim cycle while balancing the reactive needs of worst performing circuits. The Companies' goal is to maintain an average trim cycle of five years or less. The effectiveness of the plan is evaluated by the cycle, system performance as measured by system SAIDI, SAIFI, and CAIDI.

Effectiveness of the program:

LG&E/ KU Tree Cycle - 4.52 years.
LG&E Tree SAIDI - 13.79 minutes
LG&E Tree SAIFI - 0.089
LG&E Tree CAIDI - 154.9 minutes

The routine trim schedule, mid cycle, herbicide, and worst performing circuits were completed as planned.

Adjustments made to the tree plan in 2010 included:

Implemented an Enhanced Hazard Tree Removal Program to increased focus on hazard tree removals for off right of way trees.

Changes to be implemented in 2011:

No changes planned.

SECTION 8: UTILITY COMMENTS

There were no major events in 2010. SAIDI declined in 2010 compared to 2009 due to increased event durations related to lightning and utility equipment failures and planned work attributed to system stress from the 2009 major storm events. SAIDI related to tree events improved. SAIFI declined in 2010 compared to 2009 dued to increased event frequency related to lightning and utility equipment failures and planned work attributed to system stress from the 2009 major storm events. SAIFI related to trees events improved.

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

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UTILITY NAME	1.1	Kentucky Utilities Company
REPORT PREPARED BY	1.2	Nelson Maynard, Director Reliability
E-MAIL ADDRESS OF PREPARER	1.3	nelson.maynard@eon-us.com
PHONE NUMBER OF PREPARER	1.4	859-367-1107

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT	2.1	2010

SECTION 3: MAJOR EVENT DAYS

T_{MED}	3.1	7.095
FIRST DATE USED TO DETERMINE T_{MED}	3.2	1-Jan-05
LAST DATE USED TO DETERMINE T_{MED}	3.3	31-Dec-09
NUMBER OF MED IN REPORT YEAR	3.4	0

NOTE: Per IEEE 1366 T_{MED} should be calculated using the daily SAIDI values for the five prior years. If five years of data are not available, then utilities should use what is available until five years are accumulated.

SECTION 4: SYSTEM RELIABILITY RESULTS

Excluding MED

SAIDI	4.1	89.83
SAIFI	4.2	0.948
CAIDI	4.3	94.73

Including MED (Optional)

SAIDI	4.4	89.83
SAIFI	4.5	0.948
CAIDI	4.6	94.73

Notes:

1) All duration indices (SAIDI, CAIDI) are to be reported in units of minutes.
2) Reports are due on the first business day of April of each year
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KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 5: OUTAGE CAUSE CATEGORIES
Excluding MED

CAUSE CODE DESCRIPTION		SAIDI VALUE	CAUSE CODE DESCRIPTION		SAIFI VALUE
Animal	5.1.1	6.77	Animal	5.2.1	0.099
Construction	5.1.2	0.77	Construction	5.2.2	0.028
Lightning	5.1.3	13.66	Lightning	5.2.3	0.139
Non-Company	5.1.4	1.88	Non-Company	5.2.4	0.018
Unknown	5.1.5	14.96	Unknown	5.2.5	0.140
Overload	5.1.6	2.29	Overload	5.2.6	0.030
Planned Work	5.1.7	6.66	Planned Work	5.2.7	0.100
Trees	5.1.8	18.72	Trees	5.2.8	0.133
Utility Equip	5.1.9	18.25	Utility Equip	5.2.9	0.206
Vehicle	5.1.10	5.87	Vehicle	5.2.10	0.055

SECTION 6: WORST PERFORMING CIRCUITS

CIRCUIT IDENTIFIER		SAIDI VALUE	MAJOR OUTAGE CATEGORY
4331	6.1.1	3264.18	Trees
0467	6.1.2	1693.00	Utility Equipment
0333	6.1.3	1582.11	Non-Company
0615	6.1.4	1296.71	Trees
0495	6.1.5	1217.89	Trees
0937	6.1.6	1067.48	Trees
0316	6.1.7	1010.97	Trees
0614	6.1.8	972.17	Lightning
2310	6.1.9	956.95	Trees
4476	6.1.10	863.20	Trees

CIRCUIT IDENTIFIER		SAIFI VALUE	MAJOR OUTAGE CATEGORY
0495	6.2.1	13.440	Trees
0316	6.2.2	11.134	Trees
0333	6.2.3	6.611	Planned Work
0940	6.2.4	6.361	Utility Equipment
1497	6.2.5	6.233	Planned Work
0436	6.2.6	5.640	Utility Equipment
0593	6.2.7	5.082	Lightning
3410	6.2.8	4.772	Lightning
0937	6.2.9	4.759	Trees
0701	6.2.10	4.180	Utility Equipment

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The Companies' plan is to maintain a proactive trim cycle while balancing the reactive needs of worst performing circuits. The Companies' goal is to maintain an average trim cycle of five years or less. The effectiveness of the plan is evaluated by the cycle, system performance as measured by system SAIDI, SAIFI, and CAIDI.

Effectiveness of the program:

KU/LG&E Tree Cycle - 4.52 years.
KU (Kentucky) Tree SAIDI - 18.72 minutes
KU (Kentucky) Tree SAIFI - 0.133
KU (Kentucky) Tree CAIDI - 140.75 minutes

The routine trim schedule, mid cycle, herbicide, and worst performing circuits were completed as planned.

Adjustments made to the tree plan in 2010 included:

Implemented an Enhanced Hazard Tree Removal Program to increased focus on hazard tree removals for off right of way trees.

Changes to be implemented in 2011:

No changes planned.

SECTION 8: UTILITY COMMENTS

There were no major events in 2010. SAIDI improved in 2010 compared to 2009 due to reduced durations related to tree events. SAIFI declined slightly in 2010 compared to 2009 dued to increased event frequency related to lightning. SAIFI related to trees events improved.