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April 1, 2008

**RE: An Investigation of the Reliability Measures of Kentucky's
Jurisdictional Electric Distribution Utilities and Certain Reliability
Maintenance Practices- Administrative Case 2006-00494**

Dear Mr. Welch:

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

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

Sincerely,

Rick E. Lovekamp

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**Louisville Gas and Electric Company
and
Kentucky Utilities Company**

Annual Report on Reliability – 2007

Administrative Case No. 2006-00494

Submission Date

April 1, 2008

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Introduction

This Reliability report for Louisville Gas and Electric Company and Kentucky Utilities Company (jointly referred to as “the Companies”) is based on the calendar year 2007 (January to December). Each utility has reported the most recent five years of data including the current year. The data is reported for the entire system.

The report includes the following:

1. System Average Interruption Duration Index (SAIDI)
2. System Average Interruption Frequency Index (SAIFI)
3. Customer Average Interruption Duration Index (CAIDI)
4. Ten Worst Performing Circuits
5. Vegetation Management Plan Summary

In accordance with the Commission’s Order of October 26, 2007 in Case No. 2006-00494, the Institute of Electrical and Electronic Engineers (IEEE) standard number IEEE 1366-2003 has been used to define the terms in the reliability report, including the criteria for omitting events classified as major event days. The 2007 data is reported by the IEEE exclusion definition. However, data is not available based on the IEEE rule prior to 2007. As a result, data for 2006 and earlier is reported on the Company’s previous 24 hour exclusion rule, which is defined as any major event exceeding 24 hours restoration time.

Outages have been measured and reported in minutes. Each index reported includes the contributing causes for the reporting year. The analysis includes the top ten outage cause categories and the value each category contributed to the final index value.

Each utility has reported the list of the ten worst performing circuits for the report year (2007) for each index value. For each circuit, the report identifies the circuit, the index value calculated for the circuit, and the major outage category contributing to the circuit performance.

The Companies’ Vegetation Management Plan was submitted December 19, 2007 and is referenced to the Reliability report. The effectiveness of the plan will be evaluated over the 2008 reporting year and reported on April 1, 2009.

Distribution Operations System Reliability

Louisville Gas and Electric Company

KPSC Admin Case No. 2006-00494

Louisville Gas and Electric		SAIDI (minutes)	Cause Contribution to Distribution SAIDI									
			Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
2003		84.73	8.11	0.58	13.22	3.61	8.90	0.40	1.60	29.01	18.45	0.85
2004		60.46	6.26	0.32	3.65	3.73	15.97	0.55	2.30	9.49	16.39	1.80
2005		101.74	3.65	0.81	10.38	0.61	21.20	7.12	4.98	24.18	21.71	7.10
2006		86.29	5.48	2.01	14.91	0.10	14.34	1.78	4.29	20.55	17.79	5.03
2007		89.65	6.70	1.75	7.65	0.32	21.74	1.09	5.17	15.83	23.02	6.37

Louisville Gas and Electric		SAIFI	Cause Contribution to Distribution SAIFI									
			Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
2003		0.908	0.118	0.011	0.105	0.056	0.168	0.004	0.020	0.178	0.236	0.012
2004		0.810	0.083	0.015	0.041	0.060	0.224	0.008	0.026	0.092	0.232	0.029
2005		1.175	0.045	0.028	0.104	0.006	0.338	0.113	0.065	0.134	0.253	0.088
2006		1.026	0.075	0.042	0.156	0.001	0.226	0.019	0.053	0.134	0.242	0.078
2007		1.116	0.094	0.027	0.074	0.005	0.317	0.013	0.074	0.106	0.336	0.069

Louisville Gas and Electric		CAIDI (minutes)	Cause Contribution to Distribution CAIDI									
			Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
2003		93.35	68.94	51.12	125.49	63.97	53.08	99.80	80.44	163.26	78.17	73.23
2004		74.67	75.63	20.56	89.90	62.08	71.23	71.05	88.44	102.98	70.60	62.92
2005		86.57	80.47	28.64	99.52	95.57	62.66	63.20	76.15	180.89	85.86	80.69
2006		84.08	72.89	48.45	95.70	121.24	63.35	92.84	81.62	153.05	73.40	64.40
2007		80.35	71.47	64.18	103.96	60.72	68.60	83.82	69.67	149.15	68.47	92.01

* 2003-2006 Excludes major storms exceeding 24 hours restoration duration. 2007 Excludes major storms using the IEEE Std 1366.

Distribution Operations System Reliability

Kentucky Utilities Company

KPSC Admin Case No. 2006-00494

Kentucky Utilities	SAIDI (minutes)
2003	87.20
2004	95.66
2005	71.77
2006	76.40
2007	75.07

Cause Contribution to Distribution SAIDI									
Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
7.20	0.68	22.26	1.33	6.92	2.03	0.27	30.80	12.26	3.46
10.84	1.38	14.16	3.89	10.06	2.26	3.18	27.78	15.23	6.86
8.67	1.65	8.46	0.59	8.86	2.29	2.67	18.97	14.78	4.84
4.38	1.65	19.15	0.40	9.23	1.45	3.28	17.71	13.27	5.86
5.14	0.92	11.26	0.76	11.66	2.32	3.09	24.11	11.91	3.91

Kentucky Utilities	SAIFI
2003	0.751
2004	0.923
2005	0.756
2006	0.761
2007	0.739

Cause Contribution to Distribution SAIFI									
Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
0.053	0.012	0.176	0.015	0.070	0.026	0.010	0.262	0.093	0.035
0.139	0.022	0.145	0.036	0.122	0.026	0.035	0.205	0.146	0.047
0.087	0.025	0.093	0.007	0.127	0.025	0.037	0.165	0.151	0.040
0.070	0.031	0.158	0.005	0.108	0.022	0.062	0.148	0.114	0.044
0.068	0.016	0.117	0.011	0.133	0.034	0.037	0.171	0.114	0.039

Kentucky Utilities	CAIDI (minutes)
2003	116.19
2004	103.61
2005	94.99
2006	100.37
2007	101.60

Cause Contribution to Distribution CAIDI									
Animal	Construction	Lightning	Non-Company	Unknown No Report	Overload	Planned Work	Trees	Utility Equip	Vehicle
136.41	58.77	126.82	88.31	98.66	77.77	26.79	117.59	132.33	99.22
77.88	63.38	97.33	109.21	82.63	86.93	89.76	135.67	104.55	144.87
100.08	64.90	90.63	90.38	69.79	93.31	72.74	114.98	98.07	121.60
62.75	53.07	121.56	76.83	85.17	67.02	53.19	119.41	116.69	134.25
75.28	57.64	96.59	70.44	87.79	67.35	84.23	141.11	104.68	100.77

* 2003-2006 Excludes major storms exceeding 24 hours restoration duration. 2007 Excludes major storms using the IEEE Std 1366.

Distribution Operations Worst Performing Circuits - 2007
Louisville Gas and Electric Company

KPSC Admin Case No. 2006-00494

Top 10 Worst Performing Circuits Sorted by SAIDI

Circuit	Circuit SAIDI	Major Outage Cause	Actions Taken or Planned
ET1421	735.08	Planned Work	Planned work to set poles in line. No corrective action planned.
HC1294	640.18	Trees	Tree trimming completed in Dec 2007. 15 additional trees identified to be removed in 2008.
IN1298	499.63	Lightning	Lightning damaged switch. Switch replaced July 2007. Line inspection completed in December 2007.
SH1458	494.00	Planned Work	One planned outage to replace transformers.
CF1204	414.69	Lightning	Repairs completed in 2007. Inspection scheduled in 2008. Tree trimming scheduled in 2008.
MD1450	391.33	Utility Equip	Conductor sag repairs completed in 2007.
JT1124	387.04	Lightning	One lightning related outage. No corrective action recommended.
WS0464	368.94	Utility Equip	Circuit relocated for Arena project. Customers moved to Pirtle circuit. Inspection completed June 2007.
ET1167	349.14	Utility Equip	Station breaker failed and crossarms failed. Repairs completed in 2007.
SW1184	345.04	Trees	Homeowner felled trees on line. Repairs completed in 2007. Circuit trimmed in Feb 2007.

Top 10 Worst Performing Circuits Sorted by SAIFI

Circuit	Circuit SAIFI	Major Outage Cause	Actions Taken or Planned
WS0464	5.151	Utility Equip	UG cable failures. Circuit relocated for Arena project. Customers moved to Pirtle circuit. Inspection completed June 2007.
HI1102	4.723	Utility Equip	Tap changer on substation transformer repaired in 2007. Inspection completed April 2007.
WS1305	4.581	Utility Equip	Trees trimmed in March 2007. Equipment repairs completed in 2007. Inspection completed July 2007.
WH1115	4.301	Utility Equip	Failed equip. repaired in 2007. Tree Trim completed in Dec. 2007. Conductor upgrade in 2007. Reliability inspection in 2007.
HI1101	4.038	Utility Equip	Station tap changer repaired in 2007. Reliability inspection in April 2007. Tree trim scheduled in 2008.
SM1398	3.840	Non-Company	Multiple incidents related to isolating cust. equipment and locating the problem. Inspection and repairs completed in 2007.
MK1297	3.833	Utility Equip	Detailed inspection and repairs completed in 2007. Tree Trim scheduled 2008.
CF1204	3.788	Lightning	Repairs completed in 2007. Inspection scheduled in 2008. Tree trimming scheduled in 2008.
BR1186	3.731	Utility Equip	Equip failures repaired in 2007. Tree Trim and Inspection scheduled in 2008.
JT1120	3.567	Planned Work	Planned outages for partial circuit upgrade and reconductor completed in 2007. Reliability inspection completed in 2007. Tree trim Jan. 2008.

Top 10 Worst Performing Circuits Sorted by CAIDI

Circuit	Circuit CAIDI	Major Outage Cause	Actions Taken or Planned
CA1342	528.00	Utility Equip	One outage on circuit required to replace transformer bank. Repairs completed in 2007.
SH1458	494.00	Planned Work	One planned outage to replace transformers.
CK0003	414.37	Utility Equip	Two events on circuit. Repairs completed in 2007. Repairs in rear easement during poor weather. Tree Trim completed in April 2007.
AS1418	396.50	Vehicle	Extended repair time for vehicle incident and planned outage. Repairs completed in 2007.
IN1298	390.62	Lightning	Lightning damaged switch. Switch replaced in July 2007. Line inspection completed in December 2007.
BR1187	383.33	Planned Work	Planned outage to upgrade equipment for load growth.
WO1180	348.00	Planned Work	Planned outage for the customer.
HC1435	333.77	Trees	One outage caused by an off right of way large oak tree that uprooted and fell across line. Repairs completed in 2007.
HC1431	333.00	Trees	One outage caused by an off right of way large oak tree that uprooted and fell across line. Repairs completed in 2007.
AL1443	326.00	Planned Work	One planned outage for the customer.

* Excludes major storms using the IEEE Std 1366.

Distribution Operations Worst Performing Circuits - 2007

Kentucky Utilities Company

KPSC Admin Case No. 2006-00494

Top 10 Worst Performing Circuits Sorted by SAIDI			
Circuit	Circuit SAIDI	Major Outage Cause	Actions Taken or Planned
0307	2567.00	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Line inspection and tree trim completed in 2007.
0491	1849.54	Trees	Caused by off right of way trees. Tree trim completed in 2007. Inspection completed in July 2007.
0467	1132.00	Utility Equip	Vandalism caused an extended outage. Repairs completed in 2007. Inspection and tree trim completed in 2007.
0316	1106.48	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Line inspection and tree trim completed in 2007.
0418	1100.87	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Line inspection and tree trim scheduled in 2008.
0315	1071.86	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Tree trim completed in June 2007.
0487	1062.21	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Tree trim completed in 2007.
2402B	1044.58	Lightning	Repairs completed in 2007. Inspection completed in April 2007. Tree trim completed in 2007.
4401	957.33	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Tree trim scheduled in 2008.
0346	905.00	Utility Equip	Vandalism caused an extended outage. Repairs completed in 2007. Inspection completed in Feb. 2007.

Top 10 Worst Performing Circuits Sorted by SAIFI			
Circuit	Circuit SAIFI	Major Outage Cause	Actions Taken or Planned
2402B	7.869	Lightning	Inspection completed in April 2007. Tree trim completed in 2007. Evaluate lightning protection of circuit in 2008.
0319	6.572	Trees	Trees from off right of way fell causing frequent damage. Repairs completed. Tree trim completed in Dec. 2007.
0316	5.750	Trees	Tree from off right of way fell causing frequent damage. Repairs completed. Line inspection and tree trim completed in 2007.
1478	5.599	Utility Equip	Repairs completed in 2007. Inspection completed Sept. 2007. Tree trim schedule 2008. Monitoring breaker in 2008.
0491	5.333	Trees	Caused by off right of way trees. Tree trim completed in 2007. Inspection completed in July 2007.
0468	5.282	Utility Equip	Insulator repairs completed in 2007. Tree trim completed in June, 2007. Infrared scan and inspection scheduled in 2008.
4407	4.682	Trees	Off right of way trees. System protection upgrade in 2007. Fault circuit indicators added. Line relocated. Tree trim scheduled in 2008.
0304	4.330	Trees	Inspection completed in 2007. Falling trees caused frequent damage. Tree trim scheduled in 2008.
0311	4.269	Trees	High tree exposure. Off r/w tree issues. Completed engr analysis and system protection upgrade in 2007. Added phases and FCI's.
0037	4.097	Utility Equip	Repairs completed in 2007. Tree trim completed in 2006. Reliability inspection and infrared scan scheduled in 2008.

Top 10 Worst Performing Circuits Sorted by CAIDI			
Circuit	Circuit CAIDI	Major Outage Cause	Actions Taken or Planned
0307	1283.50	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Line inspection and tree trim completed in 2007.
4400	1249.33	Lightning	Two outages occurring during a storm event delaying restoration. Inspection completed in 2007. Tree trim scheduled in 2008.
0346	905.00	Utility Equip	Vandalism caused an extended outage. Repairs completed in 2007. Inspection completed in Feb. 2007.
0133	868.00	Trees	Falling tree and isolated event causing extensive damage and repair time. No action recommended.
4516	675.00	Trees	Falling tree and isolated event causing extensive damage and repair time. No action recommended.
4511	624.70	Utility Equip	Repairs completed in 2007. Inspection completed Feb. 2008.
4402	577.62	Trees	Inaccessible terrain caused lengthy repair times due to fallen trees. Inspection completed in 2007. Tree trim scheduled in 2008.
0467	566.00	Utility Equip	Vandalism caused an extended outage. Repairs completed in 2007. Inspection and tree trim completed in 2007.
0521	560.52	Trees	Isolated storm event caused trees to fall across lines. Delayed restoration times. Inspection and tree trim scheduled in 2008.
0315	522.03	Trees	Tree from off right of way fell causing extensive damage. Repairs completed. Tree trim completed in June 2007.

* Excludes major storms using the IEEE Std 1366.

Vegetation Management Plan Summary

The Companies have not made any changes to the Vegetation Management Plan that was filed December 19, 2007 with the Commission in Case No. 2006-00494.

The effectiveness of the plan will be evaluated over the 2008 reporting year and reported on April 1, 2009. The report will include an analysis of the effectiveness of the plan and what changes will be implemented in the coming year.
