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Jeff D. Cline, Manager – Annual Report Branch
Public Service Commission of Kentucky
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APR 05 2013

PUBLIC SERVICE
COMMISSION
**Louisville Gas and
Electric Company**
State Regulation and Rates
220 West Main Street
PO Box 32010
Louisville, Kentucky 40232
www.lge-ku.com

Robert M. Conroy
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April 5, 2013

**Re: Annual Resource Assessment Filing for Louisville Gas and
Electric Company Pursuant to Administrative Case No. 387**

Dear Mr. Cline:

Enclosed, in accordance with Ordering Paragraph (2) of the Commission's Order in Administrative Case 387, dated October 7, 2005, are an original and five (5) copies of the 2012 Annual Resource Assessment Filing for Louisville Gas and Electric Company, along with a Petition for Confidential Protection regarding certain information provided in response to Item Nos. 11 and 14.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. M. Conroy', is written over a large, stylized circular flourish. The signature is positioned above the printed name 'Robert M. Conroy'.

Robert M. Conroy

Enclosures

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

A REVIEW OF THE ADEQUACY OF)
KENTUCKY'S GENERATION CAPACITY) ADMINISTRATIVE
AND TRANSMISSION SYSTEM) CASE NO. 387

2012 ANNUAL RESOURCE ASSESSMENT FILING
OF
LOUISVILLE GAS AND ELECTRIC COMPANY
PURSUANT TO APPENDIX G
OF THE COMMISSION'S ORDER
DATED DECEMBER 20, 2001
AS AMENDED BY THE
COMMISSION'S ORDER
DATED MARCH 29, 2004

FILED: APRIL 2013

LOUISVILLE GAS AND ELECTRIC COMPANY

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ITEM NO. 1

The information originally requested in Item 1 of Appendix G of the Commission's Order dated December 20, 2001, in Administrative Case No. 387, is no longer required pursuant to the Commission's Order of March 29, 2004, amending the previous Order.

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ITEM NO. 2

The information originally requested in Item 2 of Appendix G of the Commission's Order dated December 20, 2001, in Administrative Case No. 387, is no longer required pursuant to the Commission's Order of March 29, 2004, amending the previous Order.

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ITEM NO. 3

RESPONDENT: Greg Lawson/Stuart Wilson

3. Actual and weather-normalized monthly coincident peak demands for the just completed calendar year. Demands should be disaggregated into (a) native load demand (firm and non-firm) and (b) off-system demand (firm and non-firm).

Response:

Please refer to the attached Table LGE-3, which shows the actual and weather-normalized native LG&E peak demands. The normalized native LG&E stand-alone peak demands are available only on a seasonal (summer/winter) basis.

**TABLE LGE-3
NATIVE AND OFF-SYSTEM DEMANDS BY MONTH FOR 2012**

Louisville Gas & Electric Co.

Time of Monthly Native Peak	Actual			Normal Weather (Seasonal)	Off-System (1)		
	Native Peak	Non-Firm	Firm	Native Peak	Firm	Non-Firm	Total
1/13/2012 11:00	1,702	21	1,681	1,735	0	203	203
2/13/2012 8:00	1,570	2	1,568		0	2	2
3/21/2012 16:00	1,812	35	1,777		0	0	0
4/30/2012 17:00	1,763	35	1,728		0	200	200
5/25/2012 16:00	2,286	53	2,233		0	0	0
6/29/2012 16:00	2,718	60	2,658		0	0	0
7/26/2012 15:00	2,731	31	2,700	2,666	0	0	0
8/8/2012 16:00	2,604	52	2,552		0	0	0
9/7/2012 16:00	2,390	37	2,353		0	0	0
10/24/2012 15:00	1,579	31	1,548		0	200	200
11/28/2012 20:00	1,565	60	1,505		0	0	0
12/10/2012 20:00	1,669	61	1,608		0	15	15

Notes

(1) The allocation of off-system sales split between LG&E and KU is handled in the After-the-Fact Billing ("AFB") process in accordance with the Power Supply System Agreement between LG&E and KU. The individual company sales will include an allocation of the sales sourced with purchased power and allocated to the individual company based on each company's contribution to off-system sales.

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ITEM NO. 4

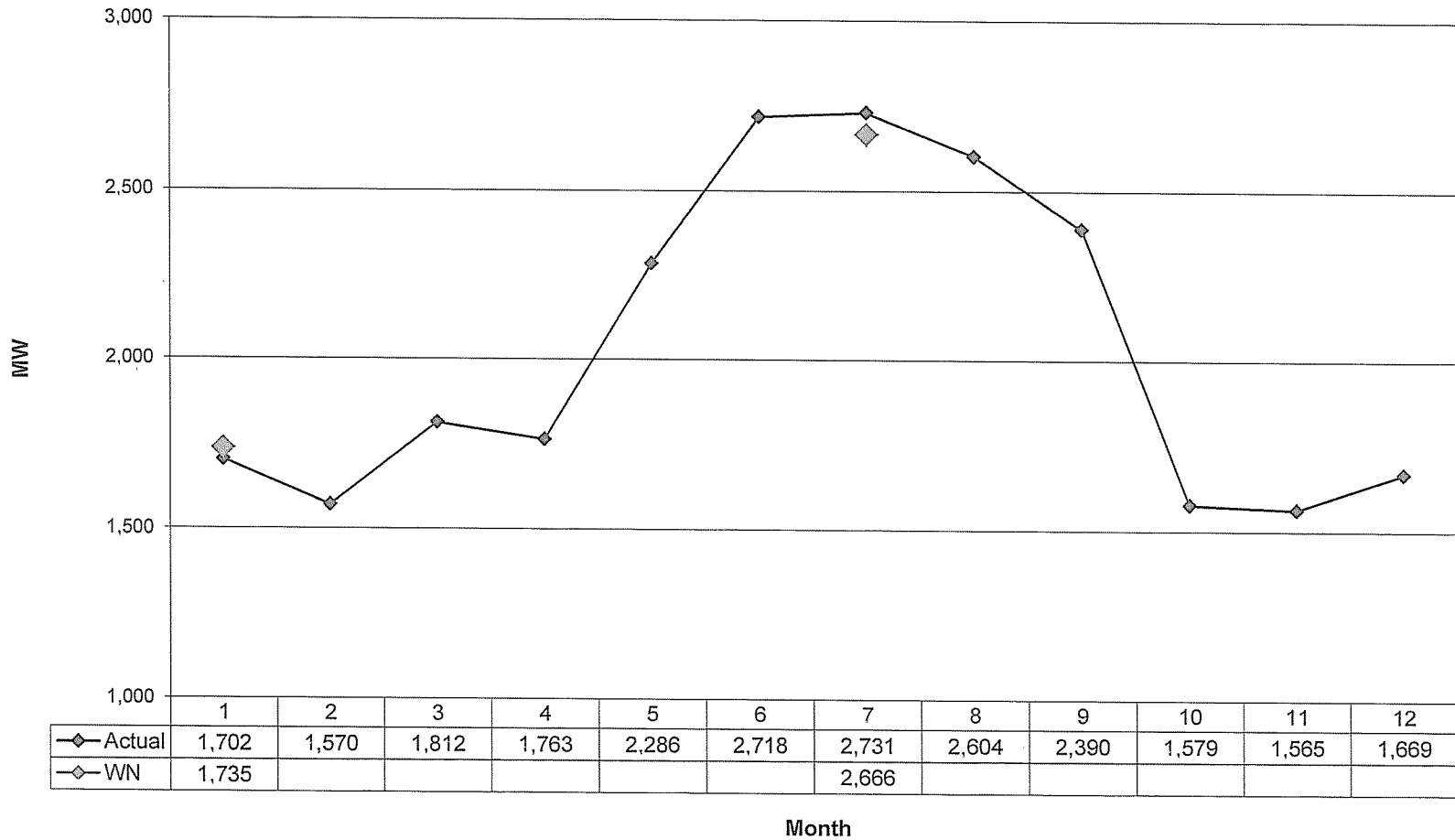
RESPONDENT: Greg Lawson

4. Load shape curves that show actual peak demands and weather-normalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

Response:

Please refer to the attached Figure LGE-4.

Figure LGE-4
LG&E 2012
Actual and Weather Normalized Seasonal Peak



LOUISVILLE GAS AND ELECTRIC COMPANY

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ITEM NO. 5

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ITEM NO. 6

RESPONDENT: Greg Lawson/Stuart Wilson

6. Based on the most recent demand forecast, the base case demand and energy forecasts and high case demand and energy forecasts for the current year and the following four years. The information should be disaggregated into (a) native load (firm and non-firm demand) and (b) off-system load (both firm and non-firm demand).

Response:

- a) Please see the attached Table LGE-6a. The values in Table LGE-6a reflect the impact of the Companies' Energy Efficiency programs.
- b) Off-system sales ("OSS") projections for 2013-2017 contained in the attached Table LGE-6b are based on the combined Companies' current plan. For OSS, only base case total sales energy projections exist for 2013-2017. The projections consist of the expected market sales, dubbed "Wholesale OSS". All OSS are non-firm.

Table LGE-6a

Louisville Gas & Electric

	2013	2014	2015	2016	2017
Base Case Energy Sales (GWh)	12,219	12,311	12,410	12,503	12,585
High Case Energy Sales (GWh)	12,605	12,732	12,870	13,006	13,133
Base Case Energy Requirements (GWh)	12,925	13,022	13,132	13,225	13,317
High Case Energy Requirements (GWh)	13,333	13,467	13,618	13,757	13,896
Base Case Native Peak Demand (MW)	2,723	2,739	2,764	2,799	2,831
High Case Native Peak Demand (MW)	2,809	2,833	2,866	2,911	2,954

Table LGE-6b
Total Base Case Off-System Sales Energy Projection

	2013	2014	2015	2016	2017
Existing OSS (GWH)	0	0	0	0	0
Wholesale OSS (GWH)	465	385	194	196	133
Total OSS (GWH)	465	385	194	196	133

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ITEM NO. 7

RESPONDENT: Stuart Wilson

7. The target reserve margin currently used for planning purposes, stated as a percentage of demand. If changed from what was in use in 2001, include a detailed explanation for the change.

Response:

As part of the 2011 Integrated Resource Plan ("2011 IRP"), the Companies established an optimal reserve margin range of 15% to 17%, with 16% recommended for planning purposes. The range provides an optimum level of reliability through various system operating conditions. The 2011 IRP was filed with the Commission in April 2011.

The Companies utilized a planning reserve margin target of 12% in 2001 and 14% in 2002 based on a reserve margin range of 11%-14% established in the Companies' 1999 IRP. A detailed explanation of the current target reserve margin is documented in the report titled "LG&E and KU 2011 Reserve Margin Study" included in Volume III of the Companies' 2011 IRP.

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ITEM NO. 8

RESPONDENT: Stuart Wilson

8. Projected reserve margins stated in megawatts and as a percentage of demand for the current year and the following 4 years. Identify projected deficits and current plans for addressing these. For each year identify the level of firm capacity purchases projected to meet native load demand.

Response:

Please refer to the attached Table LGE-8. In Table LGE-8, Brown Units 1 and 2 are assumed to be retrofitted with environmental controls and continue to operate beyond 2015. The Companies are currently evaluating responses to an RFP for meeting their future energy and capacity needs. The decision to retire or retrofit Brown 1-2 is being revisited in the context of this analysis.

**Table LGE-8
Combined Company
Reserve Margin Needs (MW)**

<u>Current Values</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Peak Load	7,259	7,339	7,426	7,509	7,597
DSM at Peak Hour	-307	-344	-386	-418	-450
CSR/Interrupt	-131	-134	-137	-137	-137
Net Load*	6,821	6,860	6,903	6,954	7,010
Existing Capability	7,936	7,949	7,174	7,162	7,179
New Capacity	0	0	640	640	640
OVEC	155	152	152	152	152
Total Supply	8,091	8,101	7,966	7,954	7,971
MW Margin	1,270	1,241	1,063	999	961
Reserve Margin %	18.6%	18.1%	15.4%	14.4%	13.7%
Capacity Need for 16%	(178)	(143)	42	113	161

*Sum of individual values may not match totals due to rounding.

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ITEM NO. 9

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ITEM NO. 10

The information originally requested in Item 10 of Appendix G of the Commission's Order dated December 20, 2001, in Administrative Case No. 387, is no longer required pursuant to the Commission's Order of March 29, 2004, amending the previous Order.

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ITEM NO. 11

RESPONDENT: Stuart Wilson

11. A list that identifies scheduled outages or retirements of generating capacity during the current year and the following four years.

Response:

The planned maintenance outage schedule for 2013 through 2017 is being provided pursuant to a Petition for Confidential Protection. The schedule is regularly modified based on actual operating conditions, forced outages, changes in the schedule required to meet environmental compliance regulations, fluctuations in wholesale prices, and other unforeseen events.

Cane Run 4, 5, and 6 will be retired upon the commissioning of Cane Run 7, which is scheduled for May 2015.

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ITEM NO. 12

RESPONDENT: Stuart Wilson

12. Identify all planned base load or peaking capacity additions to meet native load requirements over the next 10 years. Show the expected in-service date, size and site for all planned additions. Include additions planned by the utility, as well as those by affiliates, if constructed in Kentucky or intended to meet load in Kentucky.

Response:

Please refer to the attached Table LGE-12. The Companies are currently evaluating responses to an RFP for meeting their future energy and capacity needs. The decision to retire or retrofit Brown Units 1 and 2 is being revisited in the context of this analysis. The planned capacity additions that result from this analysis may differ from the planned capacity additions presented in Table LGE-12.

**Table LGE-12
Planned Capacity Additions (2013-2022)**

In Service/ Acquisition Date	Type	Site	Summer Net Capacity (MW)	Winter Net Capacity (MW)
May 2015	2x1 Combined Cycle Combustion Turbine	Cane Run (Jefferson Co, KY)	640	693
June 2018	2x1 Combined Cycle Combustion Turbine	Undecided	605	651

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ITEM NO. 13

RESPONDENT: Derek Rahn

13. The following transmission energy data for the just completed calendar year and the forecast for the current year and the following four years:
- a. Total energy received from all interconnections and generation sources connected to the transmission system.
 - b. Total energy delivered to all interconnections on the transmission system.
 - c. Peak load capacity of the transmission system.
 - d. Peak demand for summer and winter seasons on the transmission system.

Response:

Data exists for 2012. The Company does not forecast this type of data; therefore no forecast exists for 2012-2015.

- a. LG&E and KU operate as a single NERC Control area that contains several generators not owned by LG&E and KU; the non-Company owned facilities are also included as sources below:

Tie Lines Received (MWH)	16,185,232
Net Generation-LG&E (MWH)	16,202,899
Net Generation-KU (MWH)	19,067,373
Net Received from OMU (MWH)	2,532,319
Net Generation-IPPs (MWH)	<u>56,783</u>
Total Sources (MWH)	54,044,606

- b. LG&E and KU operate as a single Control Area, the amount of energy delivered at the interconnections of the single Control area were 17,751,898 MWH(s).
- c. There is no set number for peak load capacity for the transmission system. The system is built to support Network Service and firm PTP customers as tested under the LGE/KU Transmission Planning Guidelines. Actual transmission capacity available for Network customers, import, export or thru-flow will vary depending on which facilities (generation, load or transmission) in the interconnected transmission system of the eastern interconnect are connected and operated at any given time.
- d. The maximum summer peak transmission load for the combined LG&E/KU transmission system was 7223 MW for the peak hour of 6/29/12 at 4PM.

The maximum winter peak transmission load for the combined LG&E/KU transmission system was 5926 MW for the peak hour of 1/13/12 at 10AM.

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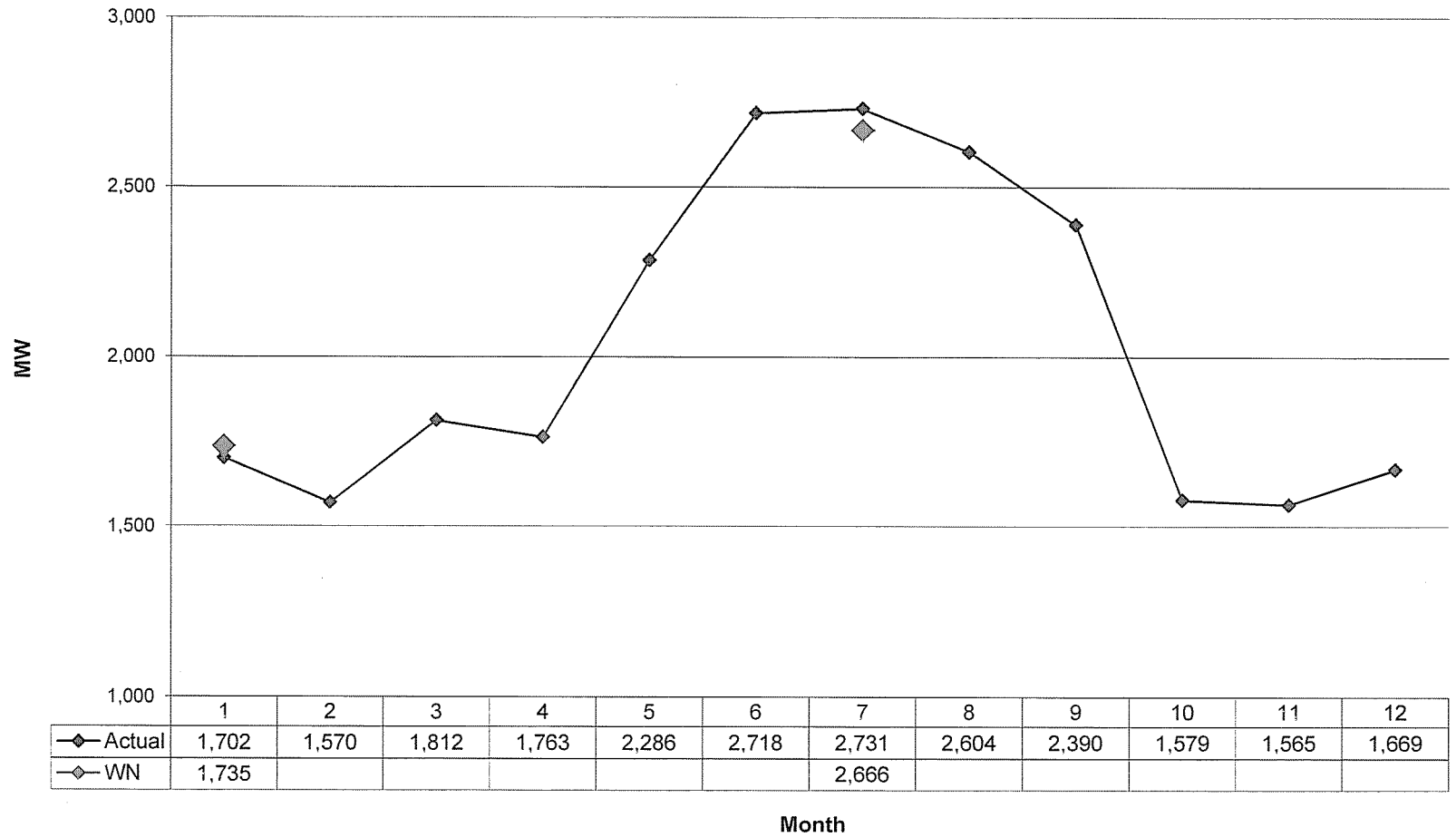
RESPONDENT: Greg Lawson

4. Load shape curves that show actual peak demands and weather-normalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

Response:

Please refer to the attached Figure LGE-4.

Figure LGE-4
LG&E 2012
Actual and Weather Normalized Seasonal Peak



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ITEM NO. 14

RESPONDENT: Delyn Kilpack

14. Identify all planned transmission capacity additions for the next 10 years. Include the expected in-service date, size and site for all planned additions and identify the transmission need each addition is intended to address.

Response:

The response to this item is being provided pursuant to a Petition for Confidential Protection.