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Jeff D. Cline, Manager – Annual Report Branch
Public Service Commission of Kentucky
Filings Division
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

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APR 25 2012

PUBLIC SERVICE
COMMISSION

Kentucky Utilities Company
State Regulation and Rates
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PO Box 32010
Louisville, Kentucky 40232
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Robert M. Conroy
Director - Rates
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April 25, 2012

**Re: Annual Report Form No. 1 and Annual Resource Assessment for
Kentucky Utilities Company Pursuant to Administrative Case No. 387**

Dear Mr. Cline:

Enclosed is one completed, signed original and two copies of Annual Report Form No. 1 for Electric Utilities covering the operations of Kentucky Utilities Company ("KU").

Also 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 2011 Annual Resource Assessment Filing for KU, 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'. The signature is stylized and written over a horizontal line.

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

2011 ANNUAL RESOURCE ASSESSMENT FILING
OF
KENTUCKY UTILITIES 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 2012

KENTUCKY UTILITIES COMPANY

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FILED APRIL 2012**

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 KU-3, which shows the actual and weather-normalized native KU peak demands. The normalized native KU stand alone peak demands are available only on a seasonal (summer/winter) basis.

**TABLE KU-3
NATIVE AND OFF-SYSTEM DEMANDS BY MONTH FOR 2011**

Kentucky Utilities

Time of Monthly Native Peak	Actual			Normal Weather (Seasonal)		Off-System (1)		
	Native Peak	Non-Firm	Firm	Native Peak		Firm (2)	Non-Firm (2)	Total
1/12/2011 11:00	4,092	70	4,022			100	0	100
2/11/2011 8:00	4,292	66	4,226	4,554		8	0	8
3/10/2011 21:00	3,251	94	3,157			0	0	0
4/1/2011 7:00	3,125	52	3,073			0	0	0
5/31/2011 15:00	3,854	101	3,753			0	0	0
6/8/2011 15:00	3,935	75	3,860			105	0	105
7/20/2011 16:00	4,147	76	4,071	4,154		0	0	0
8/2/2011 16:00	4,061	71	3,990			0	0	0
9/2/2011 16:00	4,024	75	3,949			0	0	0
10/20/2011 10:00	2,823	62	2,761			600	0	600
11/18/2011 8:00	3,374	55	3,319			128	0	128
12/8/2011 8:00	3,546	70	3,476			408	0	408

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.
- (2) The allocation of off-system sales between firm and non-firm is not available from the hourly data in AFB. The breakout is based on the monthly totals for LG&E and KU sales for firm and non-firm sales.

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ITEM NO. 4

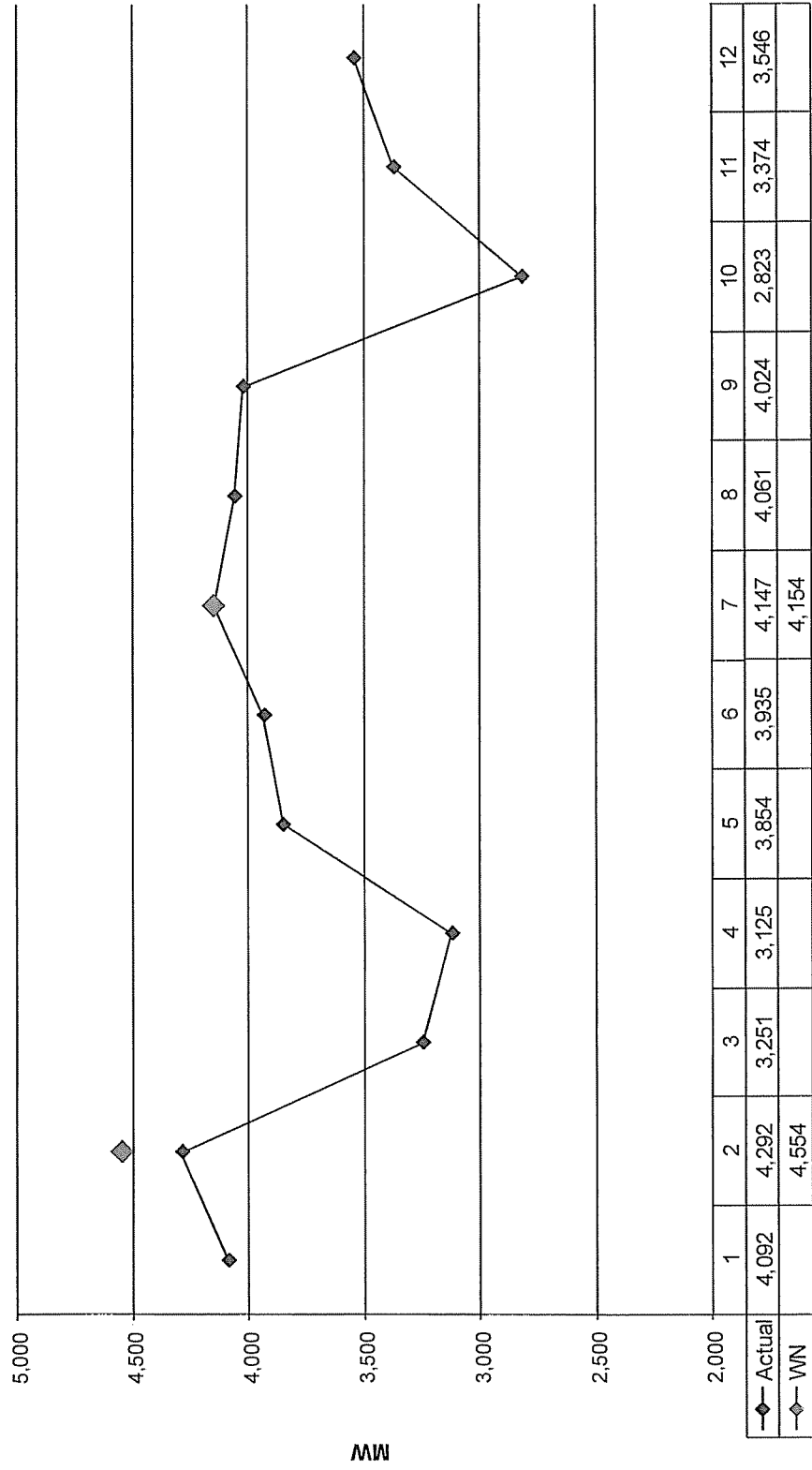
RESPONDENT: Greg Lawson

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 KU-4.

Figure KU-4
 KU 2011
 Actual and Weather Normalized Seasonal Peak



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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 KU-6a. The values in Table KU-6a reflect the impact of the Companies' Energy Efficiency programs.
- b) Off-system sales ("OSS") projections for 2012-2016 contained in the attached Table KU-6b are based on the combined Companies' current plan. For OSS, only base case total sales energy projections exist for 2012-2016. The projections consist of the expected market sales, dubbed "Wholesale OSS". In the long-range model, wholesale financially Firm and Non-firm sales are not distinguished but are combined into an overall expected sales energy.

Table KU-6a

Kentucky Utilities

	2012	2013	2014	2015	2016
Base Case Energy Sales (GWh)	22,027	22,224	22,308	22,493	22,758
High Case Energy Sales (GWh)	22,830	23,052	23,147	23,339	23,614
Base Case Energy Requirements (GWh)	23,402	23,610	23,709	23,908	24,183
High Case Energy Requirements (GWh)	24,255	24,490	24,601	24,807	25,093
Base Case Native Peak Demand (MW)	4,539	4,591	4,599	4,637	4,736
High Case Native Peak Demand (MW)	4,712	4,768	4,777	4,817	4,922

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

	2012	2013	2014	2015	2016
Existing OSS (GWH)	0	0	0	0	0
Wholesale OSS (GWH)	628	632	310	196	195
Total OSS (GWH)	628	632	310	196	195

**KENTUCKY UTILITIES COMPANY
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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 KU-8.

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

<u>Current Values</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Peak Load	7,272	7,359	7,449	7,524	7,629
DSM	-225	-270	-323	-359	-382
CSR/Interrupt	-105	-110	-112	-114	-114
Net Load	6,942	6,979	7,015	7,051	7,132
Existing Capability	8,009	8,001	7,973	7,975	7,153
New Capacity	495	495	495	495	1,135
OVEC	151	152	152	152	152
Total Supply	8,655	8,648	8,620	8,622	8,440
MW Margin	1,713	1,669	1,605	1,571	1,308
Reserve Margin %	24.7%	23.9%	22.9%	22.3%	18.3%
Capacity Need for 16%	(602)	(552)	(482)	(443)	(167)

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ITEM NO. 9

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ITEM NO. 10

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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 2012 through 2016 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.

The following KU coal units are scheduled to be retired by the end of 2015: Green River 3, Green River 4, and Tyrone 3.

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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 KU-12.

**Table KU-12
Planned Capacity Additions (2012-2021)**

In Service/ Acquisition Date	Type	Site	Summer Net Capacity (MW)	Winter Net Capacity (MW)
June 2012	3 - Simple Cycle Combustion Turbines	Bluegrass (Oldham Co, KY)	495	576
January 2016	2x1 Combined Cycle Combustion Turbine	Cane Run (Jefferson Co, KY)	640	693
June 2021	2x1 Combined Cycle Combustion Turbine	Undecided	605	673

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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 2011. The Company does not forecast this type of data; therefore no forecast exists for 2011-2014.

- 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)	15,710,980
Net Generation-LG&E (MWH)	16,758,476
Net Generation-KU (MWH)	19,957,224
Net Received from OMU (MWH)	2,827,322
Net Generation-IPPs (MWH)	<u>34,118</u>
Total Sources (MWH)	55,285,120

- 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 18,959,101 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 7085 MW for the peak hour of 7/11/11 at 4PM.

The maximum winter peak transmission load for the combined LG&E/KU transmission system was 6242 MW for the peak hour of 2/11/11 at 8AM.

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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.