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220 West Main Street (40202)  
P.O. Box 32030  
Louisville, Kentucky 40232

June 8, 2005

Elizabeth O'Donnell  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, Kentucky 40602-0615

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JUN 08 2005

PUBLIC SERVICE  
COMMISSION

**RE: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity, and a Site Compatibility Certificate, for the Expansion of the Trimble County Generating Station**  
**Case No. 2004-00507**

Dear Ms. O'Donnell:

Enclosed please find an original and ten (10) copies of Louisville Gas and Electric Company's ("LG&E") and Kentucky Utilities Company's ("KU") Rebuttal Testimony of David S. Sinclair, John P. Malloy, and John N. Voyles, in the above-referenced matters.

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

Sincerely,

John Wolfram  
Manager, Regulatory Affairs

cc: Parties of Record



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**RECEIVED**

JUN 08 2005

PUBLIC SERVICE  
COMMISSION

**In the Matter of:**

**JOINT APPLICATION OF LOUISVILLE GAS )  
AND ELECTRIC COMPANY AND KENTUCKY )  
UTILITIES COMPANY FOR A CERTIFICATE )  
OF PUBLIC CONVENIENCE AND NECESSITY, )  
AND A SITE COMPATIBILITY CERTIFICATE, )  
FOR THE EXPANSION OF THE TRIMBLE )  
COUNTY GENERATING STATION )**

**CASE NO: 2004-00507**

**REBUTTAL TESTIMONY OF  
DAVID S. SINCLAIR  
DIRECTOR -- MARKET ANALYSIS AND VALUATION  
LG&E ENERGY SERVICES INC.**

**Filed: June 8, 2005**

1 **Q. Please state your name.**

2 A. My name is David S. Sinclair.

3 **Q. Have you previously filed direct testimony on behalf of Louisville Gas and Electric**  
4 **Company and Kentucky Utilities Company (the “Companies”) in this proceeding?**

5 A. Yes.

6 **Q. What is the purpose of your rebuttal testimony?**

7 A. The purpose of this testimony is to respond to the criticisms of the Companies’ load  
8 forecast presented by David H. Brown Kinloch (“Mr. Kinloch”) in his testimony on  
9 behalf of The Office of the Attorney General for the Commonwealth of Kentucky.  
10 Additionally, I will present the results of the Companies’ recently-completed 2005 Joint  
11 Load Forecast and explain the changes from the 2004 Joint Load Forecast as presented in  
12 my Direct Testimony in this proceeding.

13 **Q. Please summarize what you understand to be Mr. Kinloch’s criticisms of the**  
14 **Companies’ load forecast.**

15 A. Mr. Kinloch states on several occasions in his testimony that the Companies have  
16 experienced “no growth” in load since 1999. The entire basis for that “no growth” claim  
17 is the comparison of the combined Companies’ weather-normalized summer peak in  
18 2004, which was 6,356 MW, to that in 1999, which was 6,317 MW – a change of only 39  
19 MW. Mr. Kinloch then says that “as growth projections have failed to materialize, the  
20 Companies have simply shifted similar forecasts to a new starting point where growth is  
21 supposed to resume again.”<sup>1</sup> Finally, Mr. Kinloch states that the Companies have “failed  
22 to provide evidence that the no growth trend is ending and a new period of growth has  
23 begun.”<sup>2</sup> Through those statements, Mr. Kinloch seems to be implying that there are  
24 flaws in the Companies’ forecast assumptions, methodology, or both. I will explain,

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<sup>1</sup> Kinloch Testimony, page 5, lines 20-22.

<sup>2</sup> Kinloch Testimony, page 6, lines 14-16.

1           however, that it is Mr. Kinloch’s analysis, and not the Companies’ 2004 Joint Load  
2           Forecast, that is flawed.

3   **Q.   Is Mr. Kinloch correct that the Companies have experienced “no growth” in load**  
4   **since 1999?**

5   **A.**   No. In making his “no growth” claim, Mr. Kinloch relies exclusively on two data points  
6   -- the combined Companies’ weather-normalized summer peak in 1999 and 2004. This  
7   rather simplistic analysis ignores the other 8,759 hours of the year in which the  
8   Companies have experienced load growth. In fact, as shown in Table 1, if one wants to  
9   look only at 1999 and 2004, then actual total energy requirements grew by 2.8 million  
10   MWh from 1999 to 2004. This is an increase of 8.9 percent cumulatively, or 1.7 percent  
11   annually. Similarly, on a weather-normalized basis, annual energy requirements grew by  
12   10.5 percent cumulatively, or 2.0 percent annually, from 1999 to 2004. Far from  
13   experiencing “no growth,” as Mr. Kinloch contends, the Companies’ service territory  
14   weathered the 2001 recession, and the sluggish economic recovery that followed,  
15   reasonably well.

16

<b>Table 1</b>				
<b>Combined Company Energy Requirements</b>				
<b>(GWh)</b>				
	<b>Actual</b>	<b>Percent Change</b>	<b>Weather Normalized</b>	<b>Percent Change</b>
1999	31,041	2.5	30,917	2.0
2000	32,058	3.3	32,261	4.4
2001	31,749	(1.0)	31,746	(1.6)
2002	33,254	4.7	32,508	2.4
2003	32,777	(1.4)	33,296	2.4
2004	33,797	3.1	34,173	2.6

17

18   **Q.   Is it a reasonable approach to evaluate the load forecast based solely on two**  
19   **historical data points as Mr. Kinloch has done?**

1 A. No. Arbitrarily picking two particular years as the basis for calculating a change in  
2 summer peak demand, and then trying to draw conclusions about the reasonableness of  
3 the forecasted summer peak load in 2010 is tenuous at best and misleading at worst.  
4 Using that type of approach, one could look only at the change in the weather-normalized  
5 summer peak demand between 2001 (6,239 MW) and 2002 (6,429 MW) and conclude  
6 that peak should grow by 3 percent per year, or, alternatively, one could look at the  
7 change between 2003 and 2004 and conclude that the Companies' load should shrink by  
8 1.4 percent annually (see Table 2). Both conclusions would be just as random and  
9 erroneous as saying that "no growth" has occurred in the last 5 years.

10 **Q. Do you believe that Mr. Kinloch erred in his analysis of the Companies' recent**  
11 **summer peak load trends?**

12 A. Yes, for two reasons. First, as I explained in my Direct Testimony in this case, "peak is  
13 far more volatile year-to-year than annual energy."<sup>3</sup> This is true even after attempting to  
14 weather-normalize peak because the total load in any one hour reflects the coincident  
15 behaviors of millions of people and businesses. This behavior is influenced by countless  
16 events that will not precisely coincide from year-to-year.

17 For example, if the hourly energy demand of a particular house (assuming no  
18 change in appliances or people in the home) was measured at the time of system peak  
19 over the course of a number of years, it is unlikely that the same value would be recorded  
20 for that home each year. That is so for a couple of reasons. First, because system peak  
21 demand does not occur at the same time every year, it is unlikely that the hypothetical  
22 household's appliance usage would be precisely the same in that peak hour year-to-year.  
23 Second, the appliance usage in the house is not constant from day-to-day or year-to-year,  
24 much less constant at the exact time of system peak demand each and every year. If one  
25 were to then analyze the year-to-year change in coincident peak demand of this

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<sup>3</sup> Sinclair Direct Testimony, page 4, line 15.

1 hypothetical house, one might conclude that its load is growing, shrinking or even both  
 2 over time. However, on a non-coincident basis, that house's peak demand would likely  
 3 be little changed since appliances and people were held constant in the house.<sup>4</sup> That  
 4 volatility in hourly load is the reason that the Companies' forecasting processes do not  
 5 rely on only a handful of years and are not simply trended off the last actual value.

6 The second reason why I believe Mr. Kinloch has erred in his analysis of the  
 7 Companies' peak demand forecast is that his analysis is overly simplistic and  
 8 misinterprets or ignores important information. Table 2 is reproduced from my Direct  
 9 Testimony and shows that highest actual peak demand was 6,513 MW in 2002, and that  
 10 highest weather-normalized peak demand was 6,448 MW in 2003. The Companies  
 11 added 19,778 new customers from 2002 to 2004, and 11,157 new customers between  
 12 2003 and 2004. Because weather-normalized energy grew by 1.7 million MWh from  
 13 2002 to 2004, and by over 0.9 million MWh from 2003 to 2004, it is clear that the  
 14 combination of new customers and changes in consumption by existing customers are  
 15 causing an increase in electricity consumption throughout the course of the year.

<b>Table 2</b>				
<b>Combined Company System Peak</b>				
<b>(MW)</b>				
	<b>Actual Peak</b>	<b>Percent Change</b>	<b>Weather Normalized Peak</b>	<b>Percent Change</b>
1999	6,357	6.2	6,317	5.5
2000	6,317	(0.6)	6,314	0.0
2001	6,221	(1.5)	6,239	(1.2)
2002	6,513	4.7	6,429	3.0
2003	6,393	(1.8)	6,448	0.3
2004	6,223	(2.7)	6,362*	(1.4)

\* Revised from 6,356 MW shown in December 9, 2004 Direct Testimony.

<sup>4</sup> Non-coincident peak demand is the peak demand recorded for a particular customer or class of customers. The non-coincident peak may occur at any time and does not necessarily correspond to the load at time of system peak.

1           Because annual energy volume is merely the sum of each hour's energy, the  
2 question becomes, "Why did energy consumed in the peak hour decline in 2004 as  
3 compared to 2002 or 2003?" The answer lies in the randomness of events that contribute  
4 to coincident peak demand that were discussed earlier. Mr. Kinloch's analysis assumes  
5 that people's behavior at 4 PM on Tuesday July 13, 2004 will be precisely repeated in the  
6 future. Such an assumption, however, ignores the fact that the Companies' customers in  
7 2002 and 2003 managed to consume more in one hour than did all customers in 2004,  
8 without the addition of any new customers in 2004. It is logical to conclude that had the  
9 coincidence of customers' behavior in 2004 been the same as in 2002 or 2003, then the  
10 addition of the load of new customers creates the potential for peak demand to be much  
11 higher than that actually observed in 2004.

12           In fact, just such an event -- of peak demand growth -- occurred this past January  
13 for KU. On January 18, 2005 at 8 AM, KU set a new all-time peak of 4,065 MW (4,059  
14 weather-normalized) which was 321 MW higher than the 2004 actual summer peak and  
15 259 MW higher than the 2004 weather-normalized summer peak. Using Mr. Kinloch's  
16 preferred time period (1999-2004), the average difference between KU's summer and  
17 winter weather-normalized peak load is 12 MW (in three years the summer peak was  
18 greater while in three years the winter peak was greater). The forecasted summer 2005  
19 peak demand for KU, as presented in my Direct Testimony, is 4,067 MW, a mere 8 MW  
20 over the 2005 weather-normalized winter peak. Furthermore, 2005's weather-normalized  
21 winter peak was 217 MW greater than was forecast. This fact reveals that, at least for  
22 KU, the summer peak demand forecast is certainly reasonable and not too high, as  
23 implied by Mr. Kinloch.

24 **Q. Is it an appropriate and acceptable forecasting methodology, as contended by Mr.**  
25 **Kinloch, to merely take the last actual peak demand value and grow it by some**  
26 **percentage?**



1 A. No. As explained in my Direct Testimony, the Companies' peak demand forecast is  
2 merely the maximum hour from the forecast of annual hourly energy. In developing the  
3 hourly energy forecast, the Companies apply a load duration curve to the forecast of  
4 monthly energy.<sup>5</sup> This load duration curve is an average of the actual load duration  
5 curves experienced in the last 10 years. A 10-year historical average is utilized because  
6 this provides an appropriate balance between capturing recent customer usage patterns,  
7 the distribution of energy among customer classes, and weather impacts. If the  
8 Companies were to use a 20-year average load duration curve, consistent with our  
9 weather normal period, then the load shape for recent factors that are not weather related  
10 would be weighted too low. Similarly, if a 5-year average load duration curve was used,  
11 recent customer mix and shape factors would be captured but recent weather experiences  
12 would be weighted too heavily.

13 **Q. Have you performed any analysis of the Companies' forecasted peak using data**  
14 **from only the last five year-period on which Mr. Kinloch focuses?**

15 A. Yes. Because Mr. Kinloch has acknowledged that the Companies' energy forecast is  
16 reasonable,<sup>6</sup> the Companies have constructed a forecast of summer peak demand using a  
17 load duration curve derived from actual experience from 2000 to 2004, the time period  
18 Mr. Kinloch uses in evaluating the Companies' long-term peak demand forecast. Table 3  
19 shows the results of a peak forecast based on the same energy requirements as the 2004  
20 Load Forecast but using the most recent 5-year average load duration curve to develop  
21 the hourly forecast. This projection is compared to the Companies' 2004 Joint Load  
22 Forecast. As can be seen, the reduction in forecasted summer peak demand is only 74  
23 MW in 2010, not the over-170 MW predicted by Mr. Kinloch. Thus, even when using

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<sup>5</sup> A load duration curve is derived by taking the hourly energy values in a time period (day, week, month, year) and sorting them from highest to lowest.

<sup>6</sup> In response to the Companies' May 6, 2005 Requests for Information #2(d), Mr. Kinloch states that, "The Companies' energy forecast is much more reasonable than demand forecasts."

1 the average load shape of the most recent five years to develop the projection of hourly  
 2 demand, the resultant peak is not reduced to the extent that Mr. Kinloch suggests. It is  
 3 important to note, however, that actually relying upon this approach would heavily  
 4 weight recent mild summers in the projection of summer peak demand, thus increasing  
 5 the likelihood that above-normal peak weather conditions would cause actual peak  
 6 demand to be well above forecast.<sup>7</sup> This increased risk of a greater than normal peak  
 7 would need to be evaluated in developing the appropriate capacity reserve margin for the  
 8 system.

9  
10

<b>Table 3</b>			
<b>Combined Company System Peak (MW)</b>			
Year	5 Year Load Duration Curve (2000 – 2004)	2004 Load Forecast	Difference
2005	6,628	6,696	(68)
2006	6,743	6,811	(68)
2007	6,882	6,951	(69)
2008	7,058	7,125	(67)
2009	7,198	7,272	(74)
2010	7,309	7,383	(74)
2011	7,480	7,556	(76)
2012	7,586	7,662	(76)

11  
12 **Q. Mr. Kinloch also contends that there is no basis to believe that the purported “no**  
 13 **growth” trend has ended and a period of greater growth has begun.<sup>8</sup> Is that**  
 14 **contention accurate?**

15 **A.** No, it is not. First of all, as already explained, the claim of a “no growth” period is  
 16 erroneous. The year-to-year volatility in peak means that one has to look closely at the

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<sup>7</sup> Over the period 2000-2004, milder than normal summer weather (July and August) occurred in 2001, 2003 and 2004.

<sup>8</sup> Kinloch Testimony, page 6, lines 12-16.

1 data to understand the amount of growth that is occurring or, more importantly for this  
2 proceeding, what level of peak load could occur in the future. Despite Mr. Kinloch's  
3 claim to the contrary, the Companies have clearly been experiencing both customer  
4 growth and sales growth in recent years, and the 2004 Joint Load Forecast shows that the  
5 growth is expected to continue. And, as discussed earlier, Mr. Kinloch has  
6 acknowledged that the Companies' energy forecast appears reasonable. Therefore, as  
7 shown in Table 3, even using the most recent 5-year average load curve, as advocated by  
8 Mr. Kinloch, indicates that growth in summer peak demand can be expected. \

9 **Q. Do you believe that the Companies' projection of peak demand is over 170 MW too**  
10 **high as stated by Mr. Kinloch?**

11 **A.** No. As I have already discussed, Mr. Kinloch's analysis in which he extrapolates the  
12 difference between the forecasted and actual summer peak in 2004 into the future is  
13 flawed because it relies only on two randomly selected data points, fails to address the  
14 issue of the inherent volatility of peak demand, and ignores the fact that the Companies  
15 have continued to experience customer and energy growth in recent years. While Mr.  
16 Kinloch implies that the Companies' peak demand forecast has been merely shifting out  
17 in time as new actual values are observed, that is simply not the case. The Companies'  
18 methodology directly links the forecast of peak demand to the forecast of energy  
19 requirements. Using Mr. Kinloch's approach would subject one to constantly changing  
20 views of the future based merely on a single data point, and would provide no basis for  
21 forecasting the level of peak demand over time.

22 **Q. Do you believe that the Companies' methodology for developing its peak demand**  
23 **forecast and the 2004 Joint Load Forecast, as discussed in your Direct Testimony,**  
24 **are reasonable?**

25 **A.** Yes. As I stated in my Direct Testimony the methods and models employed to develop  
26 the forecast are widely used in the industry, the assumptions used to develop the forecast

1 were obtained from reliable and reputable sources, and the forecasts were analyzed and  
2 reviewed in the context of historical experience. Therefore, based upon my experience in  
3 the industry and my review of the forecasts, it is my opinion that they are reasonable.

4 **Q. Have the Companies prepared a new load forecast since they filed their Joint**  
5 **Application in this proceeding?**

6 **A.** Yes. As I indicated in my response to Question No. 5 of the Attorney General's Initial  
7 Request of Information, the Companies produce long-term load forecasts annually. That  
8 annual process for 2005 was just completed and the results are shown in Rebuttal  
9 Exhibits DSS-1 and DSS-2.

10 **Q. Why do the Companies produce a new long-term forecast annually?**

11 **A.** The Companies produce a new long-term forecast each year because this allows us to: i)  
12 incorporate information from recent actual load that may be relevant to the long-term  
13 forecast; ii) reflect the most recent information regarding future economic activity at both  
14 the national and local level; and iii) review and enhance forecasting tools to ensure the  
15 development of the best possible forecast.

16 **Q. Please compare the results of the new 2005 Joint Load Forecast with the 2004 Joint**  
17 **Load Forecast.**

18 **A.** The 2005 Joint Load Forecast of energy and summer peak demand is higher through  
19 2016 and 2014, respectively, and lower thereafter as compared to the 2004 Joint Load  
20 Forecast. Table 4 summarizes the differences in energy and summer peak demand  
21 through 2020.

22

23

Year	Energy Requirements (GWh)			Summer Peak Demand (MW)		
	2004 Forecast	2005 Forecast	Difference	2004 Forecast	2005 Forecast	Difference
2005*	34,468	34,793	325	6,696	6,732	36
2006	35,143	35,706	563	6,811	6,874	63
2007	35,954	36,827	873	6,951	7,057	106
2008	36,797	37,736	939	7,125	7,238	113
2009	37,462	38,432	970	7,272	7,382	110
2010	38,121	39,115	994	7,383	7,480	97
2011	38,931	39,885	954	7,556	7,641	85
2012	39,644	40,629	985	7,662	7,730	68
2013	40,493	41,399	906	7,859	7,906	47
2014	41,285	42,102	817	7,993	8,015	22
2015	42,033	42,709	676	8,159	8,154	(5)
2016	42,719	43,415	696	8,292	8,257	(35)
2017	43,524	44,165	641	8,430	8,373	(57)
2018	44,424	44,848	424	8,587	8,488	(99)
2019	45,306	45,484	178	8,794	8,644	(150)
2020	46,182	46,073	(109)	8,965	8,758	(207)

\* The 2005 Forecast reflects actual weather-normalized energy through April, 2005

1

2 **Q. What are the primary reasons for the differences between the two forecasts?**

3 **A.** The near-term increase in the 2005 Joint Load Forecast is driven primarily by higher  
4 usage in the KU residential class, new load at one large KU industrial customer, and the  
5 addition of one large LG&E industrial customer. KU's actual weather-normalized  
6 residential usage has been consistently higher than forecast in the 2004 Joint Load  
7 Forecast. The 2005 KU residential forecast corrects this. Forecasts for large industrial  
8 customers are developed based on direct conversations with them. The new load for the  
9 existing customers described above was not revealed during those discussions that took  
10 place in developing the 2004 Joint Load Forecast.

11 The decrease in forecast load in the middle to later part of the next decade is  
12 driven by a less favorable economic outlook compared to last year. This outlook is

1 evidenced by slower growth rates in economic variables like employment and the  
2 industrial production index. These factors cause the 2005 Joint Load Forecast to grow at  
3 a slower rate in the long-term as compared to the 2004 Joint Load Forecast.

4 **Q. Do you consider the new 2005 Joint Load Forecast to be significantly different from**  
5 **the 2004 Joint Load Forecast?**

6 **A.** No. Because forecasts are the best estimate of some future, uncertain event, there is a  
7 probability distribution about that forecast that reflects such uncertainty. This is why,  
8 along with the expected load forecast that gets the most attention, the Companies also  
9 prepare high and low sensitivities about the expected forecast. The High and Low cases  
10 for the 2004 Joint Load Forecast were presented in the Companies' Integrated Resource  
11 Plan ("IRP") filing – Volume 1, Section 7, Table (7) (e) -2 dated April 21, 2005. As can  
12 be seen in Rebuttal Exhibits DSS-3 and DSS-4, the 2005 Joint Load Forecast falls within  
13 that bandwidth for both energy and summer peak demand.

14 **Q. Was the 2005 Joint Load Forecast prepared using similar methods and models as**  
15 **the 2004 Joint Load Forecast?**

16 **A.** Yes. The 2005 Joint Load Forecast was prepared using the same methods as outlined in  
17 Exhibits DSS-5, DSS-6, and DSS-7 in my Direct Testimony. The 2005 Joint Load  
18 Forecast contains updated historical data that was used to evaluate and re-estimate the  
19 Companies' forecasting models. New macroeconomic forecasts for the national and local  
20 economies were obtained and used along with other economic variables to produce new  
21 energy forecasts with the updated forecast models. The Companies developed large  
22 customer forecasts based on direct feedback from our large customers. When the new  
23 forecasts were completed, a rigorous review process was conducted to assure that the  
24 results were reasonable.

25 **Q. How should the Commission view the new 2005 Joint Load Forecast as it considers**  
26 **the Companies' Joint Application in this proceeding?**

1 A. As I stated in my Direct Testimony, a reasonable forecast should use sound models and  
2 methods, reflect the best available information, and be prepared and reviewed by  
3 experienced professionals. Both the 2004 and 2005 Joint Load Forecasts meet that test.  
4 However, whenever a forecast is updated, differences will inevitably arise. These  
5 forecast differences need to be evaluated in light of the purpose for preparing the forecast  
6 and the decisions that are being made. In the case of this CCN filing, both forecasts  
7 indicate a similar level of energy and peak load in the 2010 to 2012 timeframe and, as  
8 discussed earlier, the new 2005 Joint Load Forecast falls within the High and Low  
9 sensitivities of the 2004 Joint Load Forecast. My conclusion is that, from both a  
10 statistical and practical perspective, the 2005 Joint Load Forecast is not materially  
11 different from the 2004 Joint Load Forecast during the time period (2010-12) that is of  
12 most interest in this proceeding.

13 **Q. What is your recommendation for this Commission?**

14 A. It is my recommendation that the Commission reject Mr. Kinloch's criticisms of the  
15 Companies 2004 Joint Load Forecast and find that Forecast to be reasonable.

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

17 A. Yes, it does.

18

**VERIFICATION**

**COMMONWEALTH OF KENTUCKY** )  
 ) **SS:**  
**COUNTY OF JEFFERSON** )

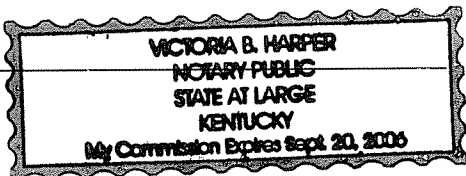
The undersigned, **David S. Sinclair**, being duly sworn, deposes and says that he is the Director of Market Analysis and Valuation for LG&E Energy Services Inc., that he has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

*David S. Sinclair*  
**David S. Sinclair**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this -  
26<sup>th</sup> day of June, 2005.

*Victoria B. Harper* (SEAL)  
Notary Public

My Commission Expires:





**REBUTTAL EXHIBIT DSS-1**  
**2005-2035 JOINT COMPANY ENERGY REQUIREMENTS**  
**AND PEAK DEMAND FORECAST**  
**(Completed May 2005)**

<b>Year</b>	<b>Energy (GWh)**</b>	<b>Growth Rate</b>	<b>Summer Peak (MW)</b>	<b>Growth Rate</b>
2005*	34,793	1.8	6,732	5.8
2006	35,706	2.6	6,874	2.1
2007	36,748	2.9	7,057	2.7
2008	37,625	2.4	7,238	2.6
2009	38,288	1.8	7,382	2.0
2010	38,873	1.5	7,480	1.3
2011	39,634	2.0	7,641	2.2
2012	40,267	1.6	7,730	1.2
2013	41,015	1.9	7,906	2.3
2014	41,674	1.6	8,015	1.4
2015	42,304	1.5	8,154	1.7
2016	42,837	1.3	8,257	1.3
2017	43,529	1.6	8,373	1.4
2018	44,226	1.6	8,488	1.4
2019	44,848	1.4	8,644	1.8
2020	45,439	1.3	8,758	1.3
2021	45,945	1.1	8,838	0.9
2022	46,710	1.7	9,003	1.9
2023	47,258	1.2	9,091	1.0
2024	47,998	1.6	9,252	1.8
2025	48,663	1.4	9,358	1.2
2026	49,280	1.3	9,498	1.5
2027	49,907	1.3	9,601	1.1
2028	50,554	1.3	9,725	1.3
2029	51,201	1.3	9,828	1.1
2030	51,845	1.3	9,993	1.7
2031	52,491	1.2	10,095	1.0
2032	53,135	1.2	10,222	1.3
2033	53,816	1.3	10,373	1.5
2034	54,497	1.3	10,484	1.1
2035	55,195	1.3	10,595	1.1

\* The 2005 Forecast reflects actual weather-normalized energy through April, 2005

\*\* Energy requirements includes native load sales, company uses and system losses

**REBUTTAL EXHIBIT DSS-2: 2005-2035 LG&E AND KU ENERGY REQUIREMENTS AND PEAK DEMAND FORECAST  
(Completed May 2005)**

Year	LG&E						KU					
	Energy (GWH)	Growth Rate (%)	Summer Peak (MW)	Growth Rate (%)	Winter Peak (MW)	Growth Rate (%)	Energy (GWH)	Growth Rate (%)	Summer Peak (MW)	Growth Rate (%)	Winter Peak (MW)	Growth Rate (%)
2005*	12,675	1.4	2,635	2.8	1,785	6.1	22,118	2.0	4,097	7.8	4,059	7.6
2006	12,945	2.1	2,688	2.0	1,840	3.1	22,761	2.9	4,199	2.5	4,039	0
2007	13,226	2.2	2,746	2.2	1,879	2.2	23,523	3.3	4,340	3.3	4,174	3.3
2008	13,504	2.1	2,804	2.1	1,919	2.1	24,120	2.5	4,450	2.5	4,280	2.5
2009	13,725	1.6	2,850	1.6	1,950	1.6	24,563	1.8	4,532	1.8	4,358	1.8
2010	13,928	1.5	2,892	1.5	1,979	1.5	24,945	1.6	4,602	1.6	4,426	1.6
2011	14,188	1.9	2,946	1.9	2,016	1.9	25,446	2.0	4,695	2.0	4,515	2.0
2012	14,397	1.5	2,990	1.5	2,046	1.5	25,870	1.7	4,773	1.7	4,590	1.7
2013	14,647	1.7	3,042	1.7	2,081	1.7	26,368	1.9	4,865	1.9	4,678	1.9
2014	14,861	1.5	3,086	1.5	2,112	1.5	26,813	1.7	4,947	1.7	4,757	1.7
2015	15,088	1.5	3,133	1.5	2,144	1.5	27,216	1.5	5,021	1.5	4,829	1.5
2016	15,271	1.2	3,171	1.2	2,170	1.2	27,566	1.3	5,086	1.3	4,891	1.3
2017	15,485	1.4	3,216	1.4	2,201	1.4	28,044	1.7	5,174	1.7	4,976	1.7
2018	15,733	1.6	3,267	1.6	2,236	1.6	28,492	1.6	5,257	1.6	5,055	1.6
2019	15,967	1.5	3,316	1.5	2,269	1.5	28,881	1.4	5,328	1.4	5,124	1.4
2020	16,169	1.3	3,358	1.3	2,298	1.3	29,271	1.3	5,400	1.3	5,194	1.3
2021	16,363	1.2	3,398	1.2	2,325	1.2	29,582	1.1	5,458	1.1	5,249	1.1
2022	16,633	1.6	3,454	1.6	2,364	1.6	30,077	1.7	5,549	1.7	5,337	1.7
2023	16,820	1.1	3,493	1.1	2,390	1.1	30,438	1.2	5,616	1.2	5,401	1.2
2024	17,104	1.7	3,552	1.7	2,431	1.7	30,894	1.5	5,700	1.5	5,482	1.5
2025	17,315	1.2	3,596	1.2	2,461	1.2	31,348	1.5	5,784	1.5	5,562	1.5
2026	17,553	1.4	3,645	1.4	2,494	1.4	31,728	1.2	5,854	1.2	5,629	1.2
2027	17,778	1.3	3,692	1.3	2,526	1.3	32,130	1.3	5,928	1.3	5,701	1.3
2028	18,008	1.3	3,740	1.3	2,559	1.3	32,546	1.3	6,005	1.3	5,775	1.3
2029	18,240	1.3	3,788	1.3	2,592	1.3	32,961	1.3	6,081	1.3	5,848	1.3
2030	18,475	1.3	3,836	1.3	2,625	1.3	33,371	1.2	6,157	1.2	5,921	1.2
2031	18,707	1.3	3,885	1.3	2,658	1.3	33,784	1.2	6,233	1.2	5,994	1.2
2032	18,942	1.3	3,934	1.3	2,692	1.3	34,192	1.2	6,308	1.2	6,067	1.2
2033	19,187	1.3	3,984	1.3	2,727	1.3	34,629	1.3	6,389	1.3	6,144	1.3
2034	19,430	1.3	4,035	1.3	2,761	1.3	35,066	1.3	6,470	1.3	6,222	1.3
2035	19,680	1.3	4,087	1.3	2,797	1.3	35,515	1.3	6,552	1.3	6,302	1.3

\* The 2005 Forecast reflects actual weather-normalized energy through April, 2005

**REBUTTAL EXHIBIT DSS-3**

**2005 JOINT LOAD FORECAST COMPARED TO THE HIGH AND LOW SCENARIOS  
FROM THE 2004 JOINT LOAD FORECAST**

Year	KU Summer Peak Demand (MW)			LG&E Summer Peak Demand (MW)		
	High	Low	2005 Load Forecast	High	Low	2005 Load Forecast
2005	4093	4017	4097	2655	2606	2635
2006	4198	4081	4186	2715	2636	2688
2007	4347	4173	4311	2757	2659	2746
2008	4481	4258	4450	2825	2694	2788
2009	4586	4321	4532	2885	2723	2850
2010	4681	4379	4587	2953	2759	2893
2011	4798	4451	4695	3033	2799	2946
2012	4901	4515	4741	3106	2836	2989
2013	5022	4590	4865	3193	2880	3041
2014	5137	4662	4947	3273	2921	3068
2015	5244	4727	5021	3353	2962	3133
2016	5338	4784	5086	3430	3001	3171
2017	5454	4856	5157	3512	3043	3216
2018	5582	4936	5221	3604	3089	3267
2019	5708	5014	5328	3694	3135	3316
2020	5836	5094	5400	3782	3180	3358

**REBUTTAL EXHIBIT DSS-4**

**2005 JOINT LOAD FORECAST COMPARED TO THE HIGH AND LOW SCENARIOS  
FROM THE 2004 JOINT LOAD FORECAST**

Year	KU Energy Requirements (GWh)			LG&E Energy Requirements (GWh)		
	High	Low	2005 Load Forecast	High	Low	2005 Load Forecast
2005	21,951	21,542	22,118*	12,781	12,546	12,675*
2006	22,513	21,888	22,761	13,069	12,691	12,945
2007	23,314	22,382	23,523	13,275	12,799	13,226
2008	24,038	22,838	24,120	13,599	12,967	13,504
2009	24,595	23,175	24,563	13,889	13,108	13,725
2010	25,107	23,483	24,945	14,218	13,280	13,928
2011	25,739	23,877	25,446	14,603	13,475	14,188
2012	26,291	24,221	25,870	14,955	13,654	14,397
2013	26,938	24,623	26,368	15,371	13,866	14,647
2014	27,558	25,009	26,813	15,759	14,063	14,861
2015	28,125	25,354	27,216	16,144	14,259	15,088
2016	28,636	25,662	27,566	16,510	14,446	15,271
2017	29,256	26,051	28,044	16,907	14,648	15,485
2018	29,945	26,477	28,492	17,349	14,873	15,733
2019	30,619	26,897	28,881	17,783	15,094	15,967
2020	31,303	27,322	29,271	18,207	15,309	16,169

\* The 2005 Forecast reflects actual weather-normalized energy through April, 2005



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

<b>JOINT APPLICATION OF LOUISVILLE GAS</b>	)	
<b>AND ELECTRIC COMPANY AND KENTUCKY</b>	)	
<b>UTILITIES COMPANY FOR A CERTIFICATE</b>	)	
<b>OF PUBLIC CONVENIENCE AND NECESSITY,</b>	)	<b>CASE NO: 2004-00507</b>
<b>AND A SITE COMPATIBILITY CERTIFICATE,</b>	)	
<b>FOR THE EXPANSION OF THE TRIMBLE</b>	)	
<b>COUNTY GENERATING STATION</b>	)	

**REBUTTAL TESTIMONY OF**

**JOHN P. MALLOY**  
**DIRECTOR – GENERATION SERVICES**  
**LG&E ENERGY SERVICES INC.**

**Filed: June 8, 2005**

1 **Q. Please state your name.**

2 A. My name is John P. Malloy.

3 **Q. Have you previously filed direct testimony on behalf of Louisville Gas and Electric**  
4 **Company and Kentucky Utilities Company (the “Companies”) in this proceeding?**

5 A. Yes.

6 **Q. What is the purpose of your rebuttal testimony?**

7 A. The purpose of my rebuttal testimony is to respond to the testimony of David H. Brown  
8 Kinloch (“Mr. Kinloch”) regarding the Companies’ proposed method of providing base  
9 load generation to meet energy and capacity needs.

10 **Q. Please summarize the Companies’ recommendation for the provision of base load**  
11 **generation.**

12 A. As stated in my direct testimony, Case 5, which calls for the construction of Trimble  
13 County Unit #2 (“TC2”) in 2010 (TC2 2010 Marketer F 2013), provides the lowest cost  
14 Net Present Value of Revenue Requirements (“NPVRR”) for all scenarios analyzed.  
15 Therefore, the Companies recommend that base load generation be provided by the  
16 construction of TC2 for a 2010 operational commencement.

17 **Q. What does Mr. Kinloch propose?**

18 A. Basically, Mr. Kinloch proposes the purchase of power from Marketer F prior to the  
19 construction of TC2. He also proposes delaying construction of TC2 for at least two  
20 years.

21 **Q. Did the Companies consider proceeding in the manner suggested by Mr. Kinloch?**

22 A. Yes. Case 4 in the Resource Assessment (Exhibit JPM-1) has Marketer F’s purchase  
23 power agreement (“PPA”) commencing in 2010 and followed by TC2 in 2011 (Marketer  
24 F 2010 TC2 2011). The Companies considered that case and concluded that Case 4  
25 (Marketer F 2010 TC2 2011) did not provide the lowest NPVRR over the thirty-year  
26 study period.

1 **Q. In the response to Question No. 15 of his direct testimony, Mr. Kinloch argues that**  
2 **the Marketer F option is the least cost option. Do you agree with this argument?**

3 A. No. The fact that the addition of Marketer F reduces NPVRR in cases including TC2 and  
4 Marketer E merely suggests that the incremental cost of Marketer F is less than the  
5 incremental cost of building combustion turbines (“CTs”). Mr. Kinloch agrees that the  
6 next capacity addition should be base load capacity and, as set forth in my direct  
7 testimony, the construction of TC2 is the least-cost option for meeting the Companies’  
8 base load needs. Furthermore, as explained later in this testimony, the Companies still do  
9 not have firm pricing from Marketer F.

10 **Q. In his response to Question No. 16 of his direct testimony, Mr. Kinloch states that**  
11 **the Companies are awaiting new firm pricing from Marketer F. When do the**  
12 **Companies anticipate receiving new pricing from Marketer F?**

13 A. The Companies are continuing discussions with Marketer F. Updated pricing is now not  
14 expected until September 2005 at the earliest. Ongoing conversation with Marketer F  
15 suggests that costs associated with the proposal are increasing.

16 **Q. In his response to Question No. 21 of his direct testimony, Mr. Kinloch discusses the**  
17 **value of Marketer F’s Green Tags and concludes they are worth \$27.5 million in**  
18 **Case 4 (Marketer F 2010 TC2 2011) and almost \$21 million in Case 5 (TC2 2010**  
19 **Marketer F 2013), a difference of about \$6.6 million (Exhibit DHBK-5). Is this**  
20 **figure valid?**

21 A. No. Mr. Kinloch has conceded that Kentucky does not have renewable energy portfolio  
22 requirements, and that, even assuming Green Tags can nonetheless be traded elsewhere in  
23 the ECAR region, it is not possible to say with any certainty what the value, if any, of  
24 Marketer F’s Green Tags would be when the project comes on line. Furthermore, the  
25 \$6.6 million is given in 2005 dollars while the analysis is in 2004 dollars. Ignoring that  
26 fact, Mr. Kinloch gives the impression that the difference of \$6.6 million was determined  
27 utilizing the low end of the spectrum of Green Tag pricing (\$3/MWh), when Green Tags



1 actually can be bought for as little as \$1/MWh, which reduces the \$6.6 million benefit to  
2 \$2.2 million. The inclusion of a reasonable Green Tag value will have negligible impact  
3 on the analysis.

4 Mr. Kinloch's sources for Green Tag values are largely not applicable and  
5 difficult to verify. According to the Attorney General's response to Question No. 6(c) of  
6 the Companies' First Requests for Information, Mr. Kinloch's source for the \$12/MWh  
7 green tags relate to "hydro facilities [in New England] that produce less than 5 megawatts  
8 [sic] of electricity each year." [www.EADenvironmental.com/buy\\_credits\\_now](http://www.EADenvironmental.com/buy_credits_now).  
9 According to Mr. Kinloch's direct testimony, other referenced sources are conversations  
10 with others regarding futures markets. Kinloch Direct Testimony, pages 16-18. As a  
11 result, the assumptions that form the basis of Exhibits DHBK-5 and DHBK-6 are  
12 inappropriate.

13 **Q. In response to Question No. 23 of his direct testimony, Mr. Kinloch refers to the**  
14 **Companies' response to Item 15 of the Attorney General's Second Data Request and**  
15 **the inclusion of an analysis of the carbon dioxide tax in the 2005 IRP. What is the**  
16 **status of the Companies' 2005 IRP?**

17 A. It was filed with this Commission on April 21, 2005, in Case No. 2005-00162.

18 **Q. Please summarize the discussion of the carbon dioxide tax and the conclusions about**  
19 **it in the 2005 IRP.**

20 A. A sensitivity on carbon emissions taxing was performed as part of the Supply-Side  
21 Screening Analysis contained in the Companies' 2005 IRP. The technologies suggested  
22 by the screening analysis including the carbon tax did not differ much from the screening  
23 analysis without a carbon tax. Regardless of the carbon tax rate evaluated in the  
24 screening, the three lowest cost technology alternatives remained unchanged: 1) TC2, 2)  
25 WV Hydro, 3) Supercritical Pulverized Coal (750 MW High Sulfur).

1 **Q. Have the Companies prepared a corrected version of the attachment to Item No.**  
2 **20(b), relating to carbon dioxide emissions, of the Attorney General’s First Request**  
3 **for Information?**

4 A. Yes. A corrected attachment to the Companies’ response to Item 20(b), relating to carbon  
5 dioxide emissions, is attached.

6 **Q. Is Mr. Kinloch’s analysis of the carbon dioxide tax in his direct testimony and his**  
7 **Exhibit DHBK-7 valid and reasonable?**

8 A. No. Assuming IRP carbon taxes of \$10 and \$40 starting in 2010 there is a difference of  
9 \$4.9 million and \$19.8 million, respectively, between Case 4 (Marketer F 2010 TC2  
10 2011) and Case 5 (TC2 2010 Marketer F 2013). Current indications are that the low end  
11 of taxes evaluated in the IRP is higher than what *may* materialize. A carbon tax of \$10  
12 per ton equates to a carbon dioxide tax of \$2.73 per ton (molecular weight of carbon is  
13 27.3% of carbon dioxide).

14 The only differences between Case 4 (Marketer F 2010 TC2 2011) and Case 5  
15 (TC2 2010 Marketer F 2013) occur in years 2010 to 2012. Mr. Kinloch has assigned a  
16 value to the difference in carbon dioxide emissions in the aforementioned years when it is  
17 unlikely any regulations will be in place by that time. Mr. Kinloch is unwilling to  
18 speculate on the timing of any potential regulations on carbon dioxide (see the Attorney  
19 General’s response to Question No. 14(b) of the Companies’ First Requests for  
20 Information), and therefore any consideration of costs between the two cases regarding  
21 carbon dioxide emissions is not valid.

22 **Q. Mr. Kinloch places much importance on reducing the emission of carbon dioxide**  
23 **even though there are no restrictions currently against its production. How do the**  
24 **currently regulated emissions (e.g. SO<sub>2</sub> and NO<sub>x</sub>) compare between Case 4**  
25 **(Marketer F 2010 TC2 2011) and Case 5 (TC2 2010 Marketer F 2013)?**

26 A. Regarding SO<sub>2</sub> and NO<sub>x</sub> (and mercury), Case 4 (Marketer F 2010 TC2 2011) produces  
27 higher amounts of the pollutants when compared to Case 5 (TC2 2010 Marketer F 2013).

1 This is due to the greater displacement of energy from less efficient and older coal units  
2 resulting from the earlier installation of TC2.

3 **Q. In response to Question No. 24 of his direct testimony, Mr. Kinloch suggests that**  
4 **other factors will demonstrate that the Marketer F option is better than the TC2**  
5 **option. Do you agree?**

6 A. No. First, the General Assembly's policy to foster and encourage the use of Kentucky  
7 coal is not difficult to apply in this case, since the technology proposed for TC2 will  
8 allow for greater fuel flexibility, including the ability to burn Kentucky coal. Second, the  
9 TC2 option has advantages similar to the Marketer F option in later years due to the  
10 depreciation of the asset.

11 **Q. In the responses to Question No. 29 and Question No. 30 of his direct testimony, Mr.**  
12 **Kinloch suggests that the Companies should purchase Marketer F's hydro units. Is**  
13 **this feasible?**

14 A. No, at least not at the present time, because an ownership option has not been offered  
15 since Marketer F switched design technologies. The Companies will evaluate all  
16 alternatives provided by Marketer F and will consider pursuing an offer, either PPA or  
17 ownership interest, if it is determined to be reasonable and a least cost option.

18 **Q. Exhibit DHBK-3 to Mr. Kinloch's testimony purports to show that there is no need**  
19 **for TC2 until at least 2012, even assuming the load growth rate projected by the**  
20 **Companies. Is that representation accurate?**

22 A. No. As set forth in the Companies' 2005 IRP reserve margin analysis contained in  
23 Volume III, the current reserve margin target is 14%. Exhibit DHBK-3 maintains a 12%  
24 reserve margin. Utilizing Mr. Kinloch's analysis suggests that TC2 is necessary by 2011  
25 to meet capacity needs. Of course, as shown in Mr. Sinclair's direct and rebuttal  
26 testimonies, Mr. Kinloch's analysis is incorrect, and the Companies have a need for

1 capacity beginning in 2010. However, even considering Mr. Kinloch's errant capacity  
2 need analysis, energy benefits are realized by installing TC2 earlier. Please refer to the  
3 Companies' response to the Commission Staff's First Data Request, Question No. 1(a)  
4 and specifically page 2 of 22 of the attachment. Installing TC2 in 2010 produces  
5 approximately \$40 million in variable cost benefits (fuel, NOx, SO<sub>2</sub>) when compared to  
6 the use of a PPA with Marketer F in 2010.

7 **Q. Exhibit DHBK-4 to Mr. Kinloch's testimony purports to show the cost to ratepayers**  
8 **for constructing TC2 as proposed. Please comment on that Exhibit.**

9 A. Exhibit DHBK-4, and the testimony regarding that Exhibit, presumes that the Companies  
10 do not have a need for base load capacity beginning in 2010, which presumption is  
11 incorrect for all of the reasons set forth in Mr. Sinclair's direct and rebuttal testimony.

12 **Q. How does the Companies' new Joint Load Forecast, filed with Mr. Sinclair's**  
13 **rebuttal testimony, impact the analysis contained in the Resource Assessment**  
14 **(Exhibit JPM-1)?**

15 A. It does not change the Companies' original recommendation that Case 5 (TC2 2010  
16 Marketer F 2013) be approved. The following table summarizes the results for the three  
17 cases in the Resource Assessment with the lowest NPVRR for the native load only  
18 scenario, using the updated load forecast and keeping all other variables unchanged.

	<u>30-Year NPVRR</u>	<u>Delta from Case 5</u>
Case 3:	\$15,958,031	\$27,716
Case 4:	\$15,938,299	\$7,984
Case 5:	\$15,930,315	\$0

19  
20

1

2 **Q. What is your recommendation to the Commission?**

3 A. I recommend that the Commission reject Mr. Kinloch's proposed schedule of events and  
4 approve the Companies' Joint Application to construct TC2 for a 2010 operational  
5 commencement.

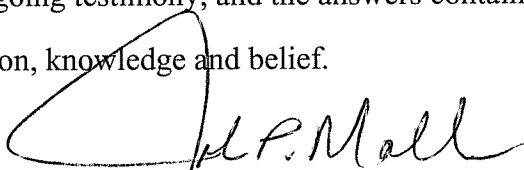
6 **Q. Does this conclude your rebuttal testimony?**

7 A. Yes.

VERIFICATION

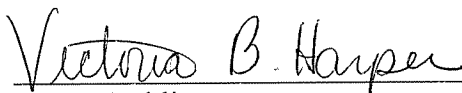
COMMONWEALTH OF KENTUCKY )  
 ) SS:  
COUNTY OF JEFFERSON )

The undersigned, **John P. Malloy**, being duly sworn, deposes and says that he is the Director of Generation Services for LG&E Energy 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.

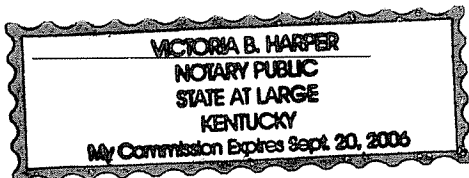


**JOHN P. MALLOY**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 6<sup>th</sup> day of June, 2005.

 (SEAL)  
Notary Public

My Commission Expires:



**Attachment to AG Q-20b  
CO2 Tons**

	Case1	Case2	Case3	Case4	Case5	Case6	Case7	Case8	Case9
2005	35,032,482	35,032,482	35,032,482	35,032,482	35,032,482	35,032,482	35,032,482	35,032,482	35,032,482
2006	35,736,785	35,736,785	35,736,785	35,736,785	35,736,785	35,736,785	35,736,785	35,736,785	35,736,785
2007	36,605,357	36,605,357	36,605,357	36,605,357	36,605,357	36,605,357	36,605,357	36,605,357	36,605,357
2008	37,255,183	37,255,183	37,255,183	37,255,183	37,255,183	37,255,183	37,255,183	37,255,183	37,255,183
2009	37,870,834	37,870,834	37,870,834	37,870,834	37,870,834	37,870,834	37,870,834	37,870,834	37,870,834
2010	38,635,970	38,621,996	37,625,906	37,646,526	38,635,970	38,722,551	38,621,996	37,738,529	38,621,996
2011	39,352,845	39,432,215	38,311,911	38,452,059	39,352,845	39,479,082	39,479,949	38,536,805	39,258,155
2012	40,021,518	40,031,702	38,975,113	38,975,113	40,021,518	40,183,578	40,167,699	39,198,318	39,912,683
2013	40,692,539	40,697,612	39,682,695	39,682,695	39,682,695	40,859,795	40,863,898	39,931,258	40,487,467
2014	41,347,817	41,347,817	40,325,749	40,325,749	40,325,749	41,563,843	41,563,843	40,582,168	41,048,049
2015	42,053,317	42,053,317	41,129,700	41,129,700	41,129,700	42,270,120	42,270,120	41,385,091	41,619,424
2016	42,687,866	42,687,865	41,680,148	41,680,148	41,680,148	42,901,257	42,901,257	41,970,930	42,208,935
2017	43,153,336	43,153,336	42,189,796	42,189,796	42,189,796	43,425,385	43,425,385	42,507,781	42,518,255
2018	44,175,113	44,175,113	43,206,520	43,206,520	43,206,520	44,417,884	44,417,884	43,532,013	43,398,707
2019	44,449,716	44,449,716	43,589,524	43,589,524	43,589,524	44,725,103	44,725,103	43,915,257	43,497,738
2020	45,389,801	45,389,800	44,492,990	44,492,990	44,492,990	45,675,572	45,675,572	44,844,762	44,441,696
2021	45,685,101	45,685,101	44,879,803	44,879,803	44,879,803	45,997,127	45,997,127	45,221,887	44,568,695
2022	46,251,523	46,251,523	45,469,814	45,469,814	45,469,814	46,565,205	46,565,205	45,826,668	45,053,782
2023	46,720,946	46,720,946	45,959,085	45,959,085	45,959,085	47,043,688	47,043,688	46,295,603	45,457,140
2024	47,558,664	47,558,663	46,799,582	46,799,583	46,799,582	47,898,851	47,898,851	47,153,019	46,263,954
2025	47,772,630	47,772,629	47,048,402	47,048,402	47,048,402	48,112,595	48,112,595	47,416,913	46,401,197
2026	48,244,509	48,244,508	47,533,044	47,533,044	47,533,044	48,581,324	48,581,324	47,889,732	46,843,599
2027	48,956,634	48,956,634	48,251,180	48,251,180	48,251,180	49,297,652	49,297,652	48,604,160	47,476,379
2028	48,890,824	48,890,824	48,280,814	48,280,814	48,280,814	49,231,985	49,231,985	48,647,092	47,085,716
2029	48,931,116	48,931,116	48,307,249	48,307,249	48,307,249	49,271,778	49,271,778	48,661,648	46,983,365
2030	48,992,126	48,992,126	48,476,241	48,476,241	48,476,241	49,348,629	49,348,629	48,859,118	46,862,868
2031	49,346,431	49,346,431	48,878,515	48,878,515	48,878,515	49,674,656	49,674,656	49,205,446	46,961,687
2032	49,734,620	49,734,620	49,374,316	49,374,316	49,374,316	50,078,825	50,078,825	49,736,348	47,112,272
2033	49,020,238	49,020,238	48,694,844	48,694,844	48,694,844	49,373,781	49,373,781	49,055,725	46,429,241
Total	1,270,565,842	1,270,646,490	1,251,663,583	1,251,824,354	1,254,760,986	1,277,200,906	1,277,089,441	1,259,216,911	1,243,013,641





**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**JOINT APPLICATION OF LOUISVILLE GAS     )  
AND ELECTRIC COMPANY AND KENTUCKY     )  
UTILITIES COMPANY FOR A CERTIFICATE     )  
OF PUBLIC CONVENIENCE AND NECESSITY,     )  
AND A SITE COMPATIBILITY CERTIFICATE,     )     **CASE NO: 2004-00507**  
FOR THE EXPANSION OF THE TRIMBLE         )  
COUNTY GENERATING STATION             )**

**REBUTTAL TESTIMONY OF  
JOHN N. VOYLES  
VICE PRESIDENT, REGULATED GENERATION  
LG&E ENERGY LLC**

**Filed: June 8, 2005**

1 **Q. Please state your name.**

2 A. My name is John N. Voyles.

3 **Q. Have you previously filed direct testimony on behalf of Louisville Gas and Electric**  
4 **Company and Kentucky Utilities Company (the “Companies”) in this proceeding?**

5 A. Yes.

6 **Q. What is the purpose of your rebuttal testimony?**

7 A. The purpose of this testimony is to provide an overview of the Companies’ case on  
8 rebuttal, and to respond to the labor issues raised in the testimony of Larry L. Roberts  
9 (“Mr. Roberts”).

10 **Q. Please provide an overview of the Companies’ rebuttal testimony.**

11 A. The Companies are providing rebuttal testimony to respond to the testimony presented by  
12 David H. Brown Kinloch (“Mr. Kinloch”) on behalf of the Office of the Attorney General  
13 (“AG”) and Mr. Roberts on behalf of the International Brotherhood of Electrical  
14 Workers, Local 2100 and the Greater Louisville Building and Construction Trades  
15 Council (“IBEW and the Trades Council”). In his testimony on behalf of the AG, Mr.  
16 Kinloch agrees that the Companies’ next capacity addition should be a baseload addition;  
17 he questions the timing of the addition proposed by the Companies. That issue is  
18 addressed in the rebuttal testimony of David Sinclair. In addition, although Mr. Kinloch  
19 does not question the choice of technology, he does question whether a hydro option  
20 should be considered differently by the Companies. That issue is addressed in the  
21 rebuttal testimony of John Malloy. In his testimony on behalf of the IBEW and Trades  
22 Council, Mr. Roberts questions the Companies’ commitment to use local workers in the  
23 construction project at the proposed new unit at the Trimble County Generating Station

1 (“TC2”), and addresses the use of a project labor agreement (“PLA”). I will address  
2 those issues below.

3 **Q. In his testimony on behalf of the IBEW and Trades Council, Mr. Roberts states an**  
4 **interest in seeing Kentucky workers utilized on the TC2 construction project. Do**  
5 **the Companies oppose the utilization of Kentucky workers?**

6 A. The Companies fully support the utilization of Kentucky workers, and have no preference  
7 on whether the workers are union or non-union. The Companies’ position has been and  
8 remains one of local jobs for all local workers. The TC2 project will require a large  
9 number of heavy industrial construction-skilled crafts that must be filled with drug free,  
10 qualified workers. Consistent with that need, the Companies’ request for proposal  
11 (“RFP”) to the engineering, procurement and construction (“EPC”) contractors  
12 specifically provides that Companies wish, “wherever practical and appropriate, to  
13 promote the use of local services and employment of local labor during the construction  
14 works.”

15 **Q. What steps will the Companies take to encourage the use of Kentucky laborers to**  
16 **the extent practicable?**

17 A. Should the project receive all necessary approvals, the Companies will, in cooperation  
18 with the successful EPC bidder, go forward with a construction job recruitment process  
19 that insures all qualified local workers will be fairly considered for available construction  
20 jobs. The process will include several outreach programs that will actively seek qualified  
21 local workers. The efforts will include such activities as on-site recruitment and training  
22 offices, advertising in the local media, utilization of the Kentucky Department of

1 Employment Services, use of local vocational and community college training services,  
2 and the like.

3 **Q. Mr. Roberts also refers to a PLA in his testimony, arguing that use of a PLA helps**  
4 **to fully utilize Kentucky workers. Do you agree with that argument?**

5 A. No. The use of a PLA in and of itself will not help fully utilize Kentucky workers. A  
6 PLA would only assist in the utilization of union workers in Kentucky. The Burns &  
7 McDonnell report referenced in the IBEW Data Request, Question 3 shows that  
8 approximately 60 percent of the area construction craft workforce which would be  
9 utilized on the TC2 project are non-union. The use of a PLA would discriminate unfairly  
10 against this large contingent of local workers. In addition, a PLA includes work rules  
11 that would increase the labor costs and, consequently, the construction costs of the  
12 project.

13 All of this said, however, the Companies do not object to the use of a PLA for the  
14 labor on the project, should that choice be made by the successful EPC bidder. As  
15 outlined in their RFP, the final contract with the successful EPC bidder will contain  
16 penalty provisions for the failure to perform as required on the TC2 project. The  
17 Companies do not believe that it is in the ratepayers' best interests to enter into a PLA at  
18 this stage, because doing so would allow the successful EPC bidder to pass cost and  
19 schedule risks back to the Companies and, ultimately, their ratepayers.

20 **Q. In his testimony, Mr. Roberts points to the use of Kentucky workers as a way for the**  
21 **Commission to ensure that the full benefit of TC2 is felt in the Commonwealth. Are**  
22 **there other benefits to Kentucky from the construction of TC2?**

1 A. Yes. Of course, providing equal opportunity for all qualified workers to work on the TC2  
2 project will provide the maximum benefit to Kentucky in many ways. The use of the  
3 employment service agencies created by Kentucky capitalizes on the infrastructure the  
4 citizens have established just for such purpose. The use of Kentucky workers minimizes  
5 the addition of travel pay to the labor costs, keeping the total project costs for all  
6 ratepayers at an optimum. And, of course, the construction of TC2, as outlined in my  
7 direct testimony, will benefit Kentucky by creating permanent jobs. Kentucky workers  
8 live and spend their wages at home in all manner of ways. Furthermore, as discussed in  
9 the direct and rebuttal testimonies of Mr. Sinclair and Mr. Malloy, TC2 will benefit the  
10 Commonwealth by continuing to ensure the availability of low-cost power into the future.

11 **Q. What is your recommendation for the Commission?**

12 A. It is my recommendation that the Commission grant the Companies' Joint Application  
13 and, in doing so, support the Companies' commitment to monitor the successful EPC  
14 bidder's recruitment and hiring practices to insure all qualified local workers from  
15 Kentucky get a fair opportunity to work on the TC2 project.


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

17 A. Yes, it does.

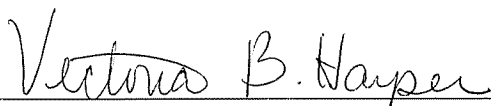
**VERIFICATION**

**COMMONWEALTH OF KENTUCKY )**  
**) SS:**  
**COUNTY OF JEFFERSON )**

The undersigned, **John N. Voyles**, being duly sworn, deposes and says he is Vice President of Regulated Generation for LG&E Energy LLC, and 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.

  
\_\_\_\_\_  
**JOHN N. VOYLES**

Subscribed and sworn to before me, a Notary Public in and before said County and State,  
this 6<sup>th</sup> day of June 2005.

  
\_\_\_\_\_  
Notary Public

(SEAL)

My Commission Expires:

