



LG&E Energy LLC  
220 West Main Street (40202)  
P.O. Box 32030  
Louisville, Kentucky 40232

August 19, 2005

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

**RE: *AN EXAMINATION OF THE APPLICATION OF THE FUEL  
ADJUSTMENT CLAUSE OF KENTUCKY UTILITIES COMPANY  
FROM NOVEMBER 1, 2004 THROUGH APRIL 30, 2005  
CASE NO. 2005-00242***

Dear Ms. O'Donnell:

Enclosed please find an original and five (5) copies of the Response of Kentucky Utilities Company to Commission Staff's Interrogatories and Requests for Production of Documents dated August 10, 2005, in the above-referenced proceeding.

Please contact me if you have any questions concerning this filing.

Sincerely,

Robert M. Conroy  
Manager, Rates

Enclosures



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

**In the Matter of:**

<b>AN EXAMINATION OF THE</b>	)	
<b>APPLICATION OF THE FUEL</b>	)	
<b>ADJUSTMENT CLAUSE OF KENTUCKY</b>	)	<b>CASE NO. 2005-00242</b>
<b>UTILITIES COMPANY FROM</b>	)	
<b>NOVEMBER 1, 2004 THROUGH APRIL</b>	)	
<b>30, 2005</b>	)	

**RESPONSE OF**  
**KENTUCKY UTILITIES COMPANY**  
**TO**  
**COMMISSION STAFF'S INTERROGATORIES AND**  
**REQUESTS FOR PRODUCTION OF DOCUMENTS**  
**DATED AUGUST 10, 2005**

**FILED: AUGUST 19, 2005**



**KENTUCKY UTILITIES COMPANY**

**Response to Commission Staff's Interrogatories and  
Requests for Production of Documents Dated August 10, 2005**

**Case No. 2005-00242**

**Question No. 1**

**Witness: Keith Yocum**

- Q-1. Refer to KU's Response to the Commission's Order of July 7, 2005, Item 5. During the period under review, Green River Unit 4 experienced over 1,334 hours of forced outages.
- a. Describe the current physical condition of Green River Unit 4.
  - b. State the estimated remaining service life of Green River Unit 4.
- A-1. a. Green River 4 remains in relatively good operating condition for a unit which was placed in service in 1959. The majority of the forced outage hours shown in Item 5 were attributable to two relatively lengthy outages.
- The first outage began on 3/9/2005 and remained classified as a forced outage until such time as the reason the unit was forced out was corrected (4/12/2005); then the outage continued as the unit's annual boiler outage through 4/20/2005. This forced outage was due to a blown tube in the penthouse area. Numerous boiler leaks as well as an asbestos release resulted. The type and number of issues which had to be addressed in connection with the blown tube, and not the physical condition or age of the unit, significantly lengthened the outage.
  - The second outage which began on 4/22/2005 was due to an operator error. Extremely high steam temperature was introduced to the turbine. Three rows of turbine blades were damaged and required replacement. The unit was brought back into service in good condition on 7/8/05 with restrictions only for turbine balancing. Again, the type of outage, and not the physical condition or age of the unit, lengthened the duration of the outage.
- b. At this time, there are no plans to retire any of the KU units, as stated on page 8-118 of Volume I in the Companies' 2005 Integrated Resource Plan (Case No. 2005-00162).



**KENTUCKY UTILITIES COMPANY**

**Response to Commission Staff's Interrogatories and  
Requests for Production of Documents Dated August 10, 2005**

**Case No. 2005-00242**

**Question No. 2**

**Witness: Mike Dotson**

Q-2. Refer to KU's Response to the Commission's Order of July 7, 2005, Item 6. There are 17 contracts expiring on December 31, 2005. State how KU intends to replace the coal deliveries that are currently covered by these contracts.

A-2. While there are a number of contracts expiring, many of them are synfuel agreements. Synfuel agreements are coal conversion agreements whereby KU agrees to purchase synfuel at a price discount in lieu of coal. (Synfuel is crushed bituminous coal that has been chemically altered to comply with requirements of the Internal Revenue code; synfuel has the burn characteristics consistent with non-treated coal.) These synfuel agreements allow KU to convert some of its coal deliveries under existing coal contracts into synfuel deliveries. Shipments under the synfuel agreements reduce the volume commitment under the corresponding coal contract. The expiration of one of these synfuel agreements only reduces the portion of the shipments that will be delivered as synfuel, it does not reduce the amount of the total shipments unless the underlying coal contract also expires. In sum, when synfuel agreements are involved, there must be the expiration of 2 agreements (the synfuel agreement and the underlying coal contract) in order to affect the total number of tons.

Kentucky Utilities Company issued a written coal solicitation on December 20, 2004 for coal suitable for Ghent Unit 1 and the Green River Station and issued a written coal solicitation on March 16, 2005 for coal suitable for the Brown, Ghent Compliance Units and for the Tyrone Stations. Purchases will be made from the bids received in response to the written solicitation and unsolicited offers received during the year. KU is currently in negotiations for replacement tonnage for contracts expiring during 2005.



**KENTUCKY UTILITIES COMPANY**

**Response to Commission Staff's Interrogatories and  
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**Case No. 2005-00242**

**Question No. 3**

**Witness: Keith Yocum/Mike Dotson**

Q-3. KU's response to the Commission's Order of July 7, 2005, Item 7, shows KU ranked third highest, on a cents per mmbtu basis, for coal prices paid. Provide a narrative description of the cumulative effect that KU's recently approved pollution control projects are expected to have on KU's fuel expenses upon their completion. Include, if available, the estimated fuel savings on a percentage, or total dollar basis.

A-3. As stated in the application and in data responses in Case No. 2004-00426, KU anticipates that, upon completion of flue gas desulfurization units ("FGDs") for all six units (Ghent Units 2-4 and Brown Units 1-3), total fuel costs will be lower than they would otherwise be without the FGDs in service. This assumption is based on forward fuel price curves that indicate a continuing, and sometimes increasing, gap in the market price of high-sulfur coal compared to the low- and medium-sulfur coal currently burned in the Ghent and Brown units, respectively. For the first year that all proposed FGDs are in service, namely 2010, the fuel price gap, in cents/million btu, for coal to be burned at the Brown units is 11 cents, or 5.4 percent. The fuel price gap, in cents/million btu, for coal to be burned at the Ghent units is 56 cents, or 25.5 percent. The fuel price gaps reported here are the same as were used in developing the least cost analysis for the construction of the FGDs; this least cost analysis was included as Exhibit JPM-2 to John Malloy's prefiled testimony in Case No. 2004-00426.

To the extent that market prices of high-, medium-, and low-sulfur coal vary from the prices used in the least cost analysis, then total fuel costs incurred by KU will vary from what was projected.