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COMMISSION

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December 22, 2008

**HAND DELIVERED**

Stephanie Stumbo  
Executive Director  
Public Service Commission of Kentucky  
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P.O. Box 615  
Frankfort, KY 40602-0615

Mark R. Overstreet  
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**RE: P.S.C. Case No. 2007-00300**

Dear Ms. Stumbo:

Enclosed please find and accept for filing Kentucky Power Company's Response to the Commission Staff's Data Request dated December 2, 2008. A copy of the Response has been served this day on all parties of record.

Very truly yours,

  
Mark R. Overstreet

cc: All Parties of Record

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

**IN THE MATTER OF:**

**CONSIDERATION OF THE REQUIREMENTS )  
OF THE FEDERAL ENERGY POLICY ACT OF )  
2005 REGARDING THE FUEL SOURCES AND ) CASE NO. 2007-00300  
FOSSIL FUEL GENERATION EFFICIENCY )**

**KENTUCKY POWER COMPANY**

**RESPONSES TO COMMISSION STAFF'S SECOND SET OF DATA REQUESTS**

**December 22, 2008**



## Kentucky Power Company

### REQUEST

With regard to Strategy 1, Improve the Energy Efficiency of Kentucky's Homes, Buildings, Industries and Transportation Fleet and Strategy 2, Increase Kentucky's Use of Renewable Energy, explain any changes that will or may impact the utility's fuel or energy requirements for :

- a. the near-term (1-3 years);
- b. the mid-term (4-7 years); and
- c. the long-term (beyond 7 years)?

### RESPONSE

#### Impact of Strategy 1

(a) The near term actions identified in Strategy 1 that impact Kentucky Power's fuel or energy requirements include (1) improving the energy efficiency of state supported facilities, (2) establishing an energy efficiency resource standard (EERS) with a goal of reducing energy consumption by at least 16 percent by 2025, (3) conducting a vigorous and ongoing public energy efficiency awareness and education program, and (4) creating incentives for a robust plug-in hybrid electric vehicle (PHEV) market. The first 3 actions may result in a near term reduction in energy requirements, although without specific programs and targets identified, quantifying such a reduction would be speculative. Any such reduction in energy requirements would have a corresponding decrease in fuel requirements to serve Kentucky Power's load. The fourth action, providing incentives for PHEV's, would have the opposite impact as this would be a new load for Kentucky Power. Until incentives and programs associated with PHEV's are identified and analyzed, the actual impacts are not quantifiable.

(b) The mid-term actions that impact Kentucky Power's fuel or energy requirements include establishing a "smart-grid" policy as well as "smart-grid" technologies and networks to facilitate the next generation of DSM programs; and to analyze rate design and ratemaking alternatives to enhance the impact of cost-effective energy efficiencies. Also during this mid-term period, actions identified in the near-term will begin to be implemented. As with the near-term actions, the mid-term actions certainly have the potential to reduce energy and fuel requirements (with the exception of the PHEV initiative), however, quantifying such reductions would be speculative.

(c) The long-term actions that impact Kentucky Power's fuel or energy requirements include enhancing the electric power system, from power generation to customer appliances, by integrating advanced "smart-grid" technologies, and to re-evaluate the EERS goal of reducing source energy consumption by at least 16 percent below projected 2025 energy consumption to determine if additional reductions are achievable. Kentucky Power's current projected load growth between 2009 and 2025 is less than 16 percent. Thus, the goal of a 16 percent reduction by 2025, if allocated equally to all Kentucky electric utilities, would result in a negative growth rate for Kentucky Power's energy requirement (and resulting fuel requirement).

#### Impact of Strategy 2

(a&b) Strategy 2 identifies a long term goal to increase renewable energy generation in Kentucky to the equivalent of 1,000 megawatts. The near-term and mid-term actions identified in Strategy 2 are primarily focused on establishing renewable energy policies and incentives. Until specific policies and incentives are finalized, there is likely to be little or no impact on fuel or energy requirements in the near or mid-term periods.

(c) The long-term action of aligning the renewable energy policies and incentive programs with the state's renewable energy goal may require Kentucky Power to modify its fuel mix to include renewable sources. The most likely sources will be wind or biomass, although a comprehensive screening process and analysis will need to be performed as part of the integrated resource planning (IRP) process to determine the best option or combination of options.

Kentucky Power is part of the AEP-East Zone. The AEP-East Zone, which includes Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, and Ohio Power Company in addition to Kentucky Power, is designed, built and operated as a fully-integrated electrical system. This means that resource requirements are established on an AEP-East Zone-wide basis. These resource requirements are then used in the preparation of the Kentucky Power IRP.

When additional resources, whether conventional or renewable, are identified in the resource plan, AEP attempts to add those resources in the most cost effective manner for all AEP-East Zone ratepayers. States with either voluntary or mandated renewable portfolio standards in the AEP-East Zone, namely Ohio, Michigan, and Virginia, recognize that the most economic source for renewable energy may be located outside their states' borders. For example, wind resources located in Indiana are being used to satisfy the voluntary Virginia renewable energy goals. By allowing sources outside the state to be used to satisfy renewable goals, the state ensures that the least-cost renewable option is being selected and that their constituents will not be subjected to higher costs from potentially less optimal sources.

AEP is committed to increasing its portfolio of renewable energy. AEP believes voluntary goals with incentives (as opposed to mandates with penalties) to be in the best interests of all parties. In Kentucky, with its indigenous coal supply, coal-based generation has provided low cost energy to ratepayers for many years. Over the next decade, AEP plans to add environmental controls to reduce emissions from these facilities. Coal plants built decades ago should remain an economical source for energy for many years, and should not be disadvantaged by any new policies that encourage renewable energy.

Expanded use of renewable energy will likely not have an impact on long term energy requirements unless, by incorporating renewable sources into the fuel mix, costs to the end use customer increase (or decrease) significantly enough for the customers to modify their behavior.

**WITNESS:** Errol K Wagner

VERIFICATION

COMMONWEALTH OF KENTUCKY )  
 ) CASE NO. 2007-00300  
COUNTY OF FRANKLIN )

The undersigned, **Errol Wagner**, being duly sworn, deposes and says he is the Director of Regulatory Services for Kentucky Power Company, 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.

*Errol K. Wagner*  
ERROL K. WAGNER

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22<sup>nd</sup> day of December 2008.

*Judy K. Sackett Logan*  
Notary Public

My Commission Expires:  
January 14<sup>th</sup> 2009