

Elizabeth O'Donnell **Executive Director** Kentucky Public Service Commission 211 Sower Boulevard 211 Sower Boulevard Frankfort, Kentucky 40601

SEP 28 2007

PUBLIC SERVICE COMMISSION

September 28, 2007

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RE: CONSIDERATION OF THE REQUIREMENTS OF THE FEDERAL ENERGY POLICY ACT OF 2005 REGARDING FUEL SOURCES AND FOSSIL FUEL GENERATION EFFICIENCY -Case No. 2007-00300

Dear Ms. O'Donnell

Enclosed please find and accept for filing Kentucky Utilities Company and Louisville Gas and Electric Company's Comments pursuant to the Intra-Agency Memorandum dated August 21, 2007 in the above mentioned docket.

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

Sincerely,

Rick E. Lovekamp

Parties of Record cc:

#### COMMONWEALTH OF KENTUCKY

PECEIVED

#### BEFORE THE PUBLIC SERVICE COMMISSION

SEP 28 2007

PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE	)	
REQUIREMENTS OF THE FEDERAL	)	<b>ADMINISTRATIVE</b>
ENERGY POLICY ACT OF 2005	)	CASE NO. 2007-00300
REGARDING FUEL SOURCES AND FOSSIL	)	
FUEL GENERATION EFFICIENCY	)	

## JOINT COMMENTS OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY

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#### INTRODUCTION

This investigation was initiated by the Kentucky Public Service Commission ("Commission") on August 2, 2007 to consider the requirements of certain sections of the Energy Policy Act of 2005 ("EPAct 2005"). Specifically, in this proceeding, the Commission must determine whether to implement Sections 1251(12) and (13) of EPAct 2005 relating to fuel sources and fossil fuel generation efficiency standards. Following an informal conference on August 13, 2007, the Commission Staff requested all Kentucky jurisdictional electric generators to file formal comments by September 28, 2007. In compliance with this request, Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") (collectively the "Companies") submit their joint comments to address the issues raised in this proceeding.

#### **ARGUMENT**

I. Section 1251(12) – FUEL SOURCES – Each electric utility shall develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

Pursuant to 807 KAR 5:058, the six major electric utilities in Kentucky are required to file their integrated resource plans ("IRP") with the Commission every three years. This regulation was promulgated in 1990 in order to ensure that all reasonable options for the supply of electricity in the future are considered, and that these utilities provide their customers a reliable supply of electricity at the lowest possible cost. Pursuant to the Commission's IRP regulation, utilities are required to "consider the potential impacts of selected, key uncertainties" and assess potentially cost-effective resource options that are available. In addition, when addressing expansion, construction, and operation of generating facilities, utilities are required to assess economic opportunities for coordination with other utilities and for generating capacity provided by cogeneration, renewable technologies, and other non-utility sources. In these triennial filings, utilities are required to "provide estimates of total energy input in primary fuels by fuel type and total generation by primary fuel type required to meet load." 807 KAR 5:058, Section 8(4)(c).

The Companies' net summer generating capability in 2006 was 7,588 megawatts. Coal-fired generating units accounted for 5,294 megawatts or approximately 70% of the net summer generating capacity. In 1998, the Companies coal-fired generating units accounted for approximately 88% of the net summer generating capacity. Gas-fired and/or oil-fired units accounted for 2,222 megawatts of the 2006 net summer generating capacity or approximately 29%. The remaining capacity is accounted for by hydroelectric facilities, which generate 72 megawatts of the 2006 net summer capacity.

In 2005, the Companies formally adopted their own Fuel Procurement Policies and Procedures which identify the process by which they seek to obtain an adequate and reliable fuel supply of sufficient quality at the lowest possible cost, consistent with the Company's obligation

to provide adequate and reliable service to its customers, to meet operational and Environmental Standards, and to meet any other applicable legal requirements. In addition, in 2007, KU and LG&E proposed, and the Commission approved, a Green Energy program, which allows the Companies to aggregate the resources provided by participating customers to develop energy generated from renewable sources (known as "green power"), purchase green power, or purchase Renewable Energy Certificates. See the Companies' Electric Rate Schedules SGE and LGE.

It is important to remember, however, that KU's and LG&E's service territories are located in a region where there are significant and available coal reserves. The Kentucky General Assembly has itself articulated its policy of fostering and encouraging the continued use of Kentucky coal by electric utilities serving the state. See KRS 278.020(1) and the preamble to KRS 278.183. As a result, Kentucky's least-cost planning principles will, in large part, drive resource optimization and fuel choice. Although the Companies rely heavily upon coal-fired generation, the Companies mitigate the risk by emphasizing the importance of diversity when selecting mine sources and the methods for transporting coal to each of the Companies' generating facilities. This diversity of supply helps to ensure the reliability and long-term availability of coal at reasonable prices.

The Commission also has the authority, pursuant to KRS 278.020, to approve the construction of any plant, equipment, property, or facility for furnishing to the public any utility service. In order to grant a utility's application for a certificate, the Commission must find that public convenience and necessity require the proposed service or construction.

The Commission already enjoys broad investigative power to consider the practices of every jurisdictional utility in the Commonwealth to ensure that "just, reasonable, safe, proper, adequate or sufficient rules, regulations, practices, equipment, appliances, facilities, service or

methods" are "observed, furnished, constructed, enforced or employed." KRS 278.280. The Commission also conducts regular reviews of the Companies' fuel adjustment clauses ("FAC") every six months pursuant to 807 KAR 5:056. In these reviews, the Commission considers the Companies' various methods of coal transportation.<sup>1</sup>

The Companies recommend that the Commission not take any action to adopt the federal fuel diversity standard set forth in EPAct 2005, Section 1251(12). The jurisdictional electrical generators in Kentucky utilize integrated resource planning to determine optimal long range resource plans, where generation fuel type is objectively determined through the application of supply side resource planning principles to determine the least-cost resource. In addition, existing statutes, regulations, and practices encourage a robust review of available technologies. As a result, a generation fuel diversity standard is not necessary and should not be adopted.

# II. <u>Section 1251(13) – FOSSIL FUEL GENERATION EFFICIENCY – Each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation.</u>

The efficiency of fossil fuel generation is typically evaluated by the net heat rate, because it is a direct measure of the amount of fuel required to produce a kilowatt hour of electrical energy. Because less fuel results in lower costs, KU and LG&E continuously search for ways of improving the heat rates of their units. The Companies place a focus on testing and reviewing approaches for making incremental efficiency improvements to existing thermal generation in order to optimize performance.

<sup>&</sup>lt;sup>1</sup> The Commission routinely includes the following data request in FAC reviews: "State the percentage of [the Company]'s coal, as of the date of this Order, that is delivered by: (a) rail; (b) truck; and (c) barge.

However, improved heat rate is dependent in large part on the design of the equipment, and the way in which the equipment is operated. As a result, heat rate improvement projects may sometimes be difficult to justify solely on the potential for efficiency improvements. Though the cost to implement a change is quantifiable, actual savings may not be realized if there is a change in operating parameters, which can depend upon system load or other factors. While utilities can implement changes in equipment design which should result in improved efficiency, system conditions may force utilities to operate inefficiently at times in order to maintain the reliability of the system. In addition, changes in environmental regulations may result in the addition of pollution-control equipment that will reduce overall efficiency through increased auxiliary power costs. While some regulations may require utilities to change the operating parameters of a unit in order to reduce emissions, these changes can have the unintended effect of detrimentally impacting efficiency.

The Commission is also focused on the efficiency of electric generating units in Kentucky. As noted above, the Commission's IRP process includes a review of each utility's plans for the efficient operation and utilization of their generating units.

In addition, E.ON U.S., the parent company of KU and LG&E, has joined the FutureGen Alliance, and committed significant financial backing, to site and develop the world's first coal-fired, near zero-emissions, power plant.

Optimizing generating units efficiencies through economical projects has and will continue to be standard procedure for KU and LG&E. The adoption of the proposed standard could unnecessarily complicate the existing IRP process that works well. Through the IRP process, the Commission already considers generation efficiency improvements. In addition, economic and financial considerations provide significant incentive to utilities to find methods

for making generation more efficient. The Companies therefore recommend that a fossil fuel generation efficiency standard not be adopted.

#### CONCLUSION

For all of the foregoing reasons, Kentucky Utilities Company and Louisville Gas and Electric Company respectfully request that the Commission enter an order concluding the investigation in a manner consistent with the positions set forth above.

Respectfully submitted,

Xllyson K) Sturgeon

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Counsel for Kentucky Utilities Company and Louisville Gas and Electric Company

### **CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing Application was served on the following persons on the day of September, 2007, U.S. mail, postage prepaid:

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