

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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PUBLIC SERVICE
COMMISSION

IN THE MATTER OF:

CONSIDERATION OF THE)
REQUIREMENTS OF THE FEDERAL)
ENERGY POLICY ACT OF 2005)
REGARDING FUEL SOURCES AND FOSSIL)
FUEL GENERATION EFFICIENCY)

ADMINISTRATIVE
CASE NO.
2007-00300

COMMENTS OF
KENTUCKY POWER COMPANY

September 28, 2007

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REQUIREMENTS OF THE FEDERAL)	ADMINISTRATIVE
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FUEL GENERATION EFFICIENCY)	

Kentucky Power Company (“KPCo” or the “Company”) submits these comments regarding the issues posed by the Commission in Administrative Case No. 2007-0300 and the need for further proceedings in the case.

Introduction

At the August 13, 2007 informal conference, Commission staff asked the parties to this proceeding to submit comments addressing three questions: (a) whether the Commission should establish the standard set out at 16 U.S.C. 2621(d)(12) (fuel source diversity); (b) whether the Commission should establish the standard set out at 16 U.S.C. 2621(d)(13) (fossil fuel generation efficiency); and (c) what further steps the Commission should take to carry out its obligation under 16 U.S.C. 1621(a) with respect to the consideration of the standards.

KPCo appreciates the opportunity to comment and to participate in this proceeding. In reviewing the Company’s comments, as well as the comments of other jurisdictional utilities, the Commission should keep in mind it is required to consider the federal standards but is not mandated to adopt them. KPCo believes that these federal standards are inappropriate for Kentucky. KPCo recommends the Commission decline to adopt the federal standards.

Additionally, it appears that determination can and should be made upon the record already compiled and that further proceedings are not necessary.

Overview of Federal Law

Section 111 of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 2621 (“PURPA”), directs the Kentucky Public Service Commission, with respect to each electric utility for which it has ratemaking authority, to consider implementation of federal standards. It does not, however, require their adoption as Kentucky standards.¹ To the contrary, recognizing the material differences between the operating conditions in the States, Section 2621(a) expressly authorizes the state commissions to reject any of the federal standards as inappropriate: “[n]othing in this subsection prohibits any State regulatory authority...from making any determination that it is not appropriate to implement any such standards, pursuant to its authority under otherwise applicable State law”.

In 2005, Congress enacted the Energy Policy Act and amended 16 U.S.C. 2621 (d), by adding additional federal standards for state commission consideration. Among the standards added are the two at issue in this proceeding:

(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.

(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.

KPCo offers the following comments on each of these federal standards.

¹ See, 16 U.S.C. 2621 (a) (“Each State regulatory authority ...shall consider each standard established by subsection (d) of this section and make a determination concerning whether or not it is appropriate to implement such standards to carry out the purpose of this chapter”)

The Need for the Federal Standards

A. Federal Standard Regarding Fuel Sources.

1. Adoption of the Federal Standard In Kentucky Would Be Inappropriate.

If adopted, 16 U.S.C. 1621(d)(12) would require Kentucky-jurisdictional utilities to implement plans to reduce their dependence on coal and to ensure that the energy sold is generated “by a diverse range of fuels and technologies, including renewable technologies.” Adoption of the federal standard is unnecessary and would contravene long-standing policy established by the Kentucky General Assembly.

First, the Commission should not, solely for the sake of fuel diversity, require electric utilities to use specific amounts of certain resources or require companies to create and lock into restrictive plans to produce fuel diversity. To do so would result in economic inefficiencies and increased costs to consumers.

KPCo’s 1450 MW of generation is entirely coal-fired base load generation.² Thus, any material change in the fuel sources for KPCo’s generation would require building or otherwise acquiring significant blocks of generation using fuels other than coal. For example, reducing coal-fired generation by 20% of the Company’s generation fuel mix would require building 362.5 MW of generation that uses other fuel sources. Alternatively, if it merely maintains a total generation capacity of 1450 MW, KPCo would be required to replace 290 MW of coal-fired generation with generation powered by other fuel sources to achieve an 80%-20% fuel mix.

In either case, the cost of adding to or replacing such a large block of the Company’s generation would be costly to KPCo’s ratepayers, who ultimately would be required to bear the

² KPCo-owned generation consists of the two coal-fired Big Sandy units with a total capacity of 1060 MW. In addition, with the Commission’s approval and the agreement of the Attorney General and Kentucky Industrial Utility Customers, Inc., KPCo in 2004 extended the Unit Power Agreement for 195 MW of Rockport Unit No. 1 and 195 MW of Rockport Unit No. 2 through December 7, 2022. Both Rockport units are base load coal-fired units.

entire cost. Moreover, it could become unreasonably so if the additions or replacements were solely made to achieve fuel diversity and not for operational or planning purposes.

Second, the cost of renewable generating sources is not only uncertain at this time but renewable resources generally cost more than conventional sources. AEP has investigated renewable resources for both its East and West zones and has found that, among renewable resources, wind and biomass can provide the most generation for the least cost but, for the East Zone, at a cost that is generally above that of conventional resources. Landfill gas and solar provide incremental distributed generation at costs even higher than wind and biomass.

Third, any decision as to the advisability of adopting the federal fuel diversity standard should be informed by public policy, as established by Kentucky General Assembly, regarding fuel use. That policy was enunciated by the General Assembly beginning 15 years ago in legislation making the recovery of certain environmental compliance costs by electric generating utilities a matter of right and has been reiterated over time. Thus, SB 341, which was codified at KRS 278.183, makes clear that Kentucky-produced coal is the preferred fuel source for electric generation in the Commonwealth:

WHEREAS, it is hereby declared the policy of the General Assembly to foster and encourage the continued use of Kentucky coal by electric utilities serving the Commonwealth; and

WHEREAS, electric utilities should have incentive to use Kentucky coal in deciding how to best achieve and maintain compliance with the Federal Clean Air Act as amended and those environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal...³

³ 1992 Ky. Acts Chapter 102, § 1.

The Commission itself recognized this policy in its August 3, 2007 Order establishing this proceeding.⁴ Such a clearly enunciated and long-standing legislative policy can not be lightly disregarded by the Commission, even in connection with a federally mandated investigation. Moreover, any shift in the policy toward the promotion of renewable energy sources should, like the policy promoting the use of Kentucky coal, come from the General Assembly.⁵

In considering whether the federal fuel diversity standard is appropriate for Kentucky the Commission also must consider the limits on fuel choice imposed by KRS 278.605. It prohibits the construction of nuclear power facilities in the Commonwealth until the Commission finds that the United States has identified and approved a means for the disposal of high level nuclear waste.

2. Adoption of the Federal Standard In Kentucky Is Unnecessary.

Imposing a fuel diversity standard, or requiring that utilities adopt plans to increase their use of fuel sources other than coal, also is unnecessary in Kentucky. The Commission already enjoys sufficient authority under existing statutes to ensure that Kentucky ratepayers garner the benefits of fuel diversity, where appropriate, without saddling ratepayers with unnecessary costs and the higher rates they inevitably bring.

The chief “arrow” in the Commission’s quiver is the certificate of public convenience and necessity process provided for by KRS 278.020. Because utilities are required to obtain a certificate before beginning construction of generating facilities, the Commission has ample opportunity to consider the utility’s fuel mix as part of that proceeding. More importantly, a certificate proceeding allows the Commission to consider all relevant factors, including

⁴ Order, *In the Matter of: Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Fuel Sources and Fossil Fuel Generation Efficiency* at 3, Case No, 2007-300 (August 3, 2007)

⁵ *D.K. v. Commonwealth ex rel. Cabinet for Health and Family Services*, 221 S.W.3d 382, 390 (Ky. 2007) (“General Assembly ... is responsible for articulating the public policy of this Commonwealth.”)

acquisition cost, reliability, operating costs and efficiency. The federal standard, by contrast, would have fuel source diversity considered in a vacuum and without consideration of all of the factors necessary to ensure the best choice – for ratepayer and shareholder alike – is made.

In addition, the Commission regularly reviews electric utilities’ fuel choice in connection with its examination of generating utilities’ fuel adjustment clause.⁶ These reviews, which take place at six-month and two-year intervals, allow the Commission to monitor fuel procurement practices and to order refunds of unjustified charges. Finally, the Commission also exercises oversight every three years through its review of Integrated Resource Plans filed by electric utilities.⁷

Economic forces also make the prescription of fixed standards unnecessary. This is particularly the case with KPCo, which is a party to the AEP-East Interconnection Agreement, and as a result has available to it the generating resources of the AEP-East Zone companies and their fuel mix. The AEP-East Zone companies view fuel diversity in light of the potential costs and risks of having or not having a diverse set of fuel sources. Economic forces already have driven the AEP-East Zone companies to diversify fuel sources in connection with supplying their load. After considering over time the associated risks and costs of various fuels, the AEP East Zone companies have developed a generating fleet that uses an appropriately diverse mix of fuels:

<u>AEP System – East Zone Fuel Mix Diversity</u>		
Resource	Capacity (MW)	Percent of Total
Nuclear	2191	8.2

⁶ 807 KAR 5:056, Section 1(11), (12).

⁷ 807 KAR 5:058, Section 5; 807 KAR 5:058, Section 8.

<u>AEP System – East Zone Fuel Mix Diversity</u>		
Resource	Capacity (MW)	Percent of Total
Coal	20,595	77.2
Natural Gas	3026	11.3
Oil	3	0
Hydro	284	1.1
Pumped Storage	585	2.2

As the AEP System load grows, the proportion of capacity fueled by natural gas also is likely to increase if, and as, additional peaking capacity is added. In that sense, fuel diversity will increase and overall system economic efficiency will be improved.

Further adding to the diverse fuel sources available to KPCo, AEP has announced a plan to acquire 1,000 MW of wind power and energy by the year 2010 as part of its comprehensive strategy to voluntarily reduce, avoid, or offset future greenhouse gas emissions. While wind power has certain operational challenges, it is also a non-emitting source of electricity that can further diversify the fuel sources for the AEP East System. Moreover, the addition of renewable power can act as a hedge against increasingly stringent future environmental regulations and convey other economic benefits that can reduce or offset higher costs or, in some cases, render an overall net cost that is projected to be lower than fossil alternatives over the long-term.

While fuel diversity may increase over time, the vast majority of the energy produced by the AEP System will continue to be provided by low-cost coal and nuclear generation. The largest part of the energy will continue to be provided by relatively low-risk solid-fuel resources. Prices for solid fuels, such as coal, are more stable than prices for natural gas. The primary risks

for solid fuels are labor problems for eastern coal, rail delivery problems for western, sub-bituminous coals, and winter barge delivery problems for both sources. While these risks are real, they seldom materialize and they can be mitigated to some extent by having fuel supplies on hand at the generating stations. Natural gas, the main alternative to solid fuels, on the other hand, is at risk for more frequent price spikes and supply interruptions at the sources; and storage at generating stations is not possible. The Company should be free to make changes in its generation mix as economically appropriate to meet the load of all of its customers reliably and efficiently.

Existing Commission oversight of the Company's recovery of fuel costs, guided by the General Assembly's policy of fostering and encouraging the use of Kentucky coal by electric utilities serving the Commonwealth, sufficiently provides for fuel diversity. Economic forces have driven the AEP-East Zone companies, of which the Company is a part, to achieve reasonable fuel diversity. As costs change and technology develops, the Company, consistent with its statutory and regulatory obligations, will continue to evaluate renewable resource options, taking into consideration the associated risk and cost factors.

B. Fossil Fuel Generation Efficiency

The second standard under Commission consideration would require each jurisdictional electric utility to adopt "10-year plan" to increase fossil fuel generation efficiency. KPCo believes the standard set out at 16 U.S.C. 2621(d)(13) is inappropriate for Kentucky electric utilities.

Generation efficiency is a company-specific issue that requires flexibility in operations, maintenance, and equipment upgrades, all of which would be limited by rigid plans driven only by the pursuit of generating unit efficiency. For example, a ten percent increase in the efficiency

of poorly operating plant might be brought about at a reasonable cost. On the other hand, a similar increase in a state-of-the-art unit, operating at peak efficiency, might be possible, if at all, by expenditures that can not be justified under even the most forgiving cost-benefit analysis. In addition, the imposition of a uniform standard, which would be required absent extensive investigation and analysis of each company's generation facilities, would punish those companies and their ratepayers who have already made significant investments in improving generation efficiency. Also, increases in efficiency are oftentimes masked by the installation of environmental controls that consume significant amounts of energy. Finally, the imposition of fossil fuel generation efficiency standards may result in capital budgets being directed toward generation when similar improvements in overall efficiency can be obtained by a smaller investment in transmission and distribution facilities.

The standard also is unnecessary. Commission review of fuel and generation costs in base rate and fuel adjustment clause proceedings already compels the Company toward efficient generation. KPCo recognizes the economic need to improve fossil fuel generation efficiency and strives to improve the operating performance of its generating units through wise capital expenditures, the use of proven new technologies, efficient operation and careful planning. The AEP System, of which KPCo is a part, has employed these concepts over time in the development and utilization of generation efficiency improvements to provide reliable, low cost electricity to its customers.

Some of AEP's notable accomplishments include the development and operation of the first supercritical double reheat unit, the development of a sliding pressure technique for supercritical units to improve part load efficiency, the installation of more efficient turbine valves on the 1300 MW series units and the installation of Advanced Design Steam Paths on the

System's larger units. More recently, the AEP System has focused on the utilization of tools to help it assess the efficiency of its plants. Examples include the development of on-line performance monitors for plant operators, the creation of a heat rate deviation calculation, a reporting tool that allows engineers and management to identify problem areas in major equipment, and the introduction of facility health reports for outage planning and condition monitoring.⁸

Additionally, the AEP System has implemented several initiatives designed to improve the reliability and efficiency of its generation fleet. Among these activities are critical heat-cycle balance-of-plant mechanical equipment condition assessments, utilization of monitoring programs to rank major capital and maintenance expenditures, and establishment of a Generation Performance Team to coordinate efficiency improvement activities across the System, to improve heat rate education and intra-System communication on best practices.

As was the case with federal requirement for fuel-mix diversity, imposing a requirement for generation efficiency improvement is both inappropriate and unnecessary. It also would limit the flexibility necessary to ensure continued success in meeting changing conditions. The existing statutory criteria, Commission oversight, and the Company's own initiatives already have propelled the Company toward efficient generation and the development of more efficient generation plans for the future.

C. Recommendations For Further Proceedings.

KPCo expects the written comments filed by Kentucky's jurisdictional electric utilities will provide a sufficient record upon which to maintain the status quo and for the Commission to decline to impose the federal standards. If the Commission nevertheless is inclined to impose the

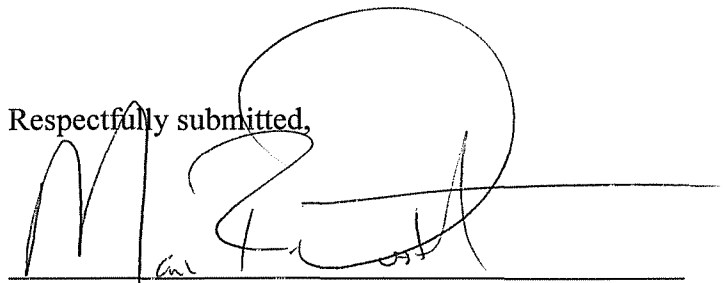
⁸ The efficiencies obtained through some of these improvements are set out in Exhibit 1 to these comments.

standards or requires further clarification or information, KPCo suggests the Commission implement a limited proceeding in which it uses data requests to seek clarification or further information. The Commission also can use data requests to provide the utilities with any concerns the Commission may have about not implementing either of the standards and ask the utilities to address the Commission's concerns.

WHEREFORE, the Company respectfully requests:

- (a) that the Commission make findings that the federal standards are inappropriate;
- (b) that the Commission decline to adopt either of the standards; and
- (c) that it be permitted to participate in further proceedings in this matter, if any, as its interests may appear.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark Overstreet', is written over a horizontal line. The signature is stylized and somewhat cursive.

Mark R. Overstreet
STITES & HARBISON PLLC
421 West Main Street
P.O. Box 634
Frankfort, Kentucky 40602-0634
Telephone: 502-223-3477

COUNSEL FOR:
KENTUCKY POWER COMPANY

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the Comments of Kentucky Power Company were served via United States Postal Service, First Class Mail, postage prepaid, upon:

Kendrick R. Riggs
Stoll, Keenon and Ogden, PLLC
2000 PNC Plaza
500 West Jefferson Street
Louisville, Kentucky 40202-2874

James M. Miller
Sullivan, Mountjoy, Stainback & Miller, PSC
100 St. Ann Street
P.O. Box 727
Owensboro, Kentucky 42302-0727

Lonnie E. Bellar
Louisville Gas and Electric Company
Kentucky Utilities Company
E-ON U.S. Services, Inc.
220 West Main Street
P.O. Box 32010
Louisville, Kentucky 40202

Michael H. Core
Big Rivers Electric Corporation
201 Third Street
P.O. Box 24
Henderson, Kentucky 42420

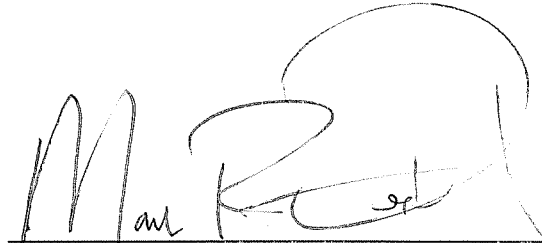
John J. Finnigan, Jr.
Duke Energy Kentucky, Inc.
139 East Fourth Street, EX 400
Cincinnati, Ohio 45202

Patty Walker
Duke Energy Kentucky, Inc.
139 East Fourth Street, EX 400
Cincinnati, Ohio 45202

Ronnie Thomas
East Kentucky Power Cooperative
4775 Lexington Road
P.O. Box 707
Winchester, Kentucky 40392-0707

Charles Lisle
East Kentucky Power Cooperative
4775 Lexington Road
P.O. Box 707
Winchester, Kentucky 40392-0707

on this the 28th day of September, 2007.



Mark R. Overstreet