

Stephanie L. Stumbo
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

March 20, 2008

RE: <u>AN INVESTIGATION OF THE ENERGY AND REGULATORY</u>
<u>ISSUES IN SECTION 50 OF KENTUCKY'S 2007 ENERGY ACT</u>
Adm Case 2007-00477

Dear Ms. Stumbo:

Enclosed please find an original and ten (10) copies of Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") Response to the First Data Request of Commission Staff to Big Rivers Electric Corporation ("BREC"), Duke Energy Kentucky, Inc. ("Duke Kentucky"), East Kentucky Power Cooperative, Inc. ("EKPC"), Kentucky Power Company ("Kentucky Power"), Louisville Gas and Electric Company, and Kentucky Utilities Company dated March 11, 2008, in the above-referenced docket.

The responses to Question No. 2, 3, 4(c), and 4(d) is being offered on behalf of BREC, Duke Kentucky, EKPC, Kentucky Power, KU, and LG&E.

The responses to the remaining questions are offered on behalf of KU and LG&E only.

Verification Page for David Sinclair will be filed the week of March 24, 2008.

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

Sincerely,

Rick E. Lovekamp

cc: Parties of Record

MAR 2 0 2008

PUBLIC SERVICE COMMISSION

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

MAR 2 0 2008

PUBLIC SERVICE COMMISSION

In	the	Matter	r of
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AN INVESTIGATION OF THE)	
ENERGY AND REGULATORY)	
ISSUES IN SECTION 50 OF)	CASE NO. 2007-00477
KENTUCKY'S 2007 ENERGY ACT)	

BIG RIVERS ELECTRIC CORPORATION
DUKE ENERGY KENTUCKY, INC
EAST KENTUCKY POWER COOPERATIVE, INC
KENTUCKY POWER COMPANY
LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY
RESPONSE TO FIRST DATA REQUEST
OF COMMISSION STAFF
DATED MARCH 11, 2008

FILED: March 20, 2008

VERIFICATION

STATE OF KENTUCKY

SS:

COUNTY OF JEFFERSON)

The undersigned, **John Wolfram**, being duly sworn, deposes and says that he is Director, Customer Service and Marketing for E.ON U.S. Services Inc., that he has personal knowledge of the matters set forth in the responses (Question Nos. 1b, 1c, 4a, and 4b), and the answers contained therein are true and correct to the best of his information, knowledge and belief.

JOHN WOLFRAM

Subscribed and sworn to before me, a Notary Public in and before said County and State, this $20^{\frac{1}{2}}$ day of March, 2008.

Notary Public (SEAL)

My Commission Expires:

November 9, 2010

VERIFICATION

STATE OF KENTUCKY)
) SS
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates for E.ON U.S. Services Inc., that he has personal knowledge of the matters set forth in the responses (Question Nos. 2, 3, 4c, 4d, and 6-11), and the answers contained therein are true and correct to the best of his information, knowledge and belief.

LONNIE BELLAR

Subscribed and sworn to before me, a Notary Public in and before said County and State, this $20^{\frac{1}{14}}$ day of March, 2008.

Notary Public (SEAL)

My Commission Expires:

November 9, 2010

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ADMINISTRATIVE CASE NO. 2007-00477

Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 1

Responding Witness: David Sinclair / John Wolfram

- Q-1. Refer to the Joint Testimony of Lonnie E. Bellar ("Bellar Testimony"), page 5, which discusses the potential for renewable resource power purchases to result in a net reduction in the amount of new generation utilities propose to build. There are a number of bills pending in the U. S. Congress that may impact the construction of new generation facilities in the future, primarily those bills that would result in federal regulation of the amount of Carbon Dioxide ("CO₂") produced by utilities in the generation of electricity.
 - a. Explain whether each of the Generating Utilities anticipates some form of federal CO₂ regulation to be enacted in the near future. Identify which of the pending bills each of the Generating Utilities favor and which of the pending bills, if any, each believes will become law.
 - b. Explain whether each of the Generating Utilities is currently incorporating the uncertainty and/or potential for CO₂ regulation into its respective Integrated Resource Plan demand-side and supply-side planning processes and how this may be affecting the timeline for future construction of new generation.
 - c. Using the Generating Utilities' own estimates of the cost of CO₂ removal, describe the potential changes in the type of new or expanded demand-side management ("DSM") programs that each believes may become cost effective in Kentucky and the potential energy and demand savings each program is estimated to produce.
 - d. Using each of the Generating Utilities' own estimates of the cost of CO₂ removal, identify the potential changes in the relative cost effectiveness of renewable generation, distributed generation and cogeneration in Kentucky.
 - e. Explain whether each of the Generating Utilities is aware of anything that presently would prevent each of them from developing additional generation

capacity from renewable sources, distributed generation sources or cogeneration sources in Kentucky either as sole owner or with an equity stake in these types of projects.

- A-1. a. Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") (collectively, the "Companies") believe it is more likely than not that some form of CO₂ emission regulation will be enacted by the Federal government in the future. There are currently more than fifteen bills in Congress that seek to regulate CO₂ emissions in some manner. The Companies are not actively supporting any particular bill. Given the large number of bills and current state of the debate on the climate change issue within the country, the Companies have no way of projecting which of these bills, if any, will actually become law and when they would be effective.
 - b. The Companies' 2008 IRP (to be filed in April 2008) addresses the uncertainty associated with potential CO₂ regulations regarding supply-side planning. The impact on the need for new generating capacity will vary depending on the nature of the CO₂ regulations. The Companies are not explicitly incorporating the potential of CO₂ regulation into the demand-side planning process because there is no way to anticipate the form such legislation may ultimately take.
 - c. Assuming that CO₂ costs have significantly adverse effects on the economics of resources that are traditionally "least cost", certain programs included in Exhibit DSM-1 and Exhibit DSM-3 of the Companies 2005 IRP may become cost-effective. More important, however, is whether customers will change their behavior based on cost impacts to them; if so, there will likely be increased participation in load control programs and perhaps expansion of smart metering and in-home energy use display technology.
 - d. The Companies will provide their analysis of the relative costs of various generating technologies as part of their 2008 IRP to be filed on April 21, 2008.
 - e. The ability of LG&E or KU to develop such resources depends on a variety of factors, both physical/technical and legal/regulatory. On a physical/technical level, the ability to develop such resources depends on, among other things, the availability and location of renewable fuel sources (i.e., water, wind), siting capability, and transmission availability. On a legal/regulatory level, there are a variety of federal laws and regulations applicable to such resources that may make their development, ownership, and operation more or less attractive to existing utilities and third-party investors. As a general matter, Federal Energy Regulatory Commission ("FERC") approval under Section 203 of the Federal Power Act is required for acquisitions (but not construction) of most generation assets with a value of greater than \$10

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million. The FERC will examine such matters as market competition, effect on wholesale rates, effect on regulation and the public interest in considering such applications. Thereafter, the applicability and effects of various laws and regulations depends heavily upon the precise legal structure and commercial activity of the proposed renewable resource, particularly in instances where the facility would be partially-owned or directly sell into wholesale markets. For example, while classification of an entity as an Exempt Wholesale Generator under the Public Utility Holding Company Act (PUHCA) or as a Qualifying Facility under the Public Utility Regulatory Policies Act (PURPA) may make third-party investment more attractive and thus defray or share the costs applicable to utilities, those laws and regulations involve certain technical and regulatory qualifications and criteria which the facility would be required to meet. Separately, with respect to water resources, certain FERC standards give precedence to governmental or municipal entities when applying for hydro operational or ownership licenses. Additionally, there are number of potential tax advantages which, for both utilities or third party investors, which can be dependant upon the Internal Revenue Service rules as applied to the precise renewable opportunity and structure selected.

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Question No. 2

Responding Witness: Lonnie E. Bellar

- Q-2. Refer to pages 5-6 of the Bellar Testimony. Expand on the scope of work the Generating Utilities anticipate that the proposed task force would consider. For example, explain whether metering and interconnection standards, standard offer contracts, avoided cost analysis, and cost recovery of new meters, renewables, and distributed generation would be considered as part of the scope of work for the task force. What groups do the Generating Utilities expect would be members of the task force?
- A-2. The Generating Utilities continue to object to mandatory statewide renewable and distributed generation standards, but would not oppose a task force to study the availability and advisability of renewable generation resources in Kentucky. Such a task force could investigate the issues described in the question above, but metering and interconnection standards should not be considered as part of the scope of work because such standards were reviewed as part of Administrative Case No. 2006-00045. Regardless of the topics explored, any such task force must balance Kentucky's goals for fuel diversity, economic development, price effects, and environmental benefits.

If such a task force should determine, over the Generating Utilities' objection, to examine a Renewable Portfolio Standard ("RPS"), the following items would be valid points of consideration, among others.

- What types of resources should be considered "renewable"?
 - o Will Renewable Energy Certificates ("RECs") be considered in the compliance calculation?
 - What will be the shelf life of a REC?
 - How will Kentucky handle the tracking of RECs?
- Should voluntary purchases of green power be counted toward RPS compliance?

- Should renewable energy attributes supplied from facilities installed under the Public Utility Regulatory Policies Act ("PURPA") of 1978 be counted toward RPS compliance?
- Would power purchases from, or ownership interests in, out-of-state renewable resources count toward RPS compliance?
- Would rebates or state tax incentives be provided for in-state renewable generators?
- What environmental attributes would be tracked and what system would be used for tracking?
- Would specific solar set-asides be established as part of RPS compliance?
- Would customers be responsible for the cost of verifying solar power system output on customer-owned installations?
- Would there be noncompliance penalties associated with RPS compliance?
- Would cost caps be included to limit the exposure of ratepayers to higher costs associated with an RPS implementation?
- Would "short-term waivers" be granted to utilities unable to meet the RPS compliance threshold if reliability of the electrical system is in jeopardy?
- How would regulated utilities recover costs of renewable generation projects?
- What would be the potential impact on reliability and system operations due to the addition of renewable resources?
- What would be the appropriate means to ensure additional transmission resources will be built for renewable generation projects?

Again, the Generating Utilities oppose an RPS; if, however, one is addressed, the above questions should be discussed.

As mentioned in House Bill 299, participation of groups should include electric utilities and suppliers of retail electric power, environmental and conservation groups, representatives of industrial, commercial, institutional, and residential customers, and the Office of the Attorney General. Because portfolio standards exist in other states and discussions of federal legislation have occurred, it might be beneficial to include representatives from these jurisdictions to address important challenges.

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 3

- O-3. Refer to the Bellar Testimony, page 2, lines 8-14.
 - a. Mr. Bellar states that, with the exception of Duke Energy Kentucky ("Duke"), the Generating Utilities do not believe that additional legislation is necessary or desirable to eliminate the impediments to cost-effective DSM strategies. Is it the position of the Generating Utilities, other than Duke, that additional incentives for DSM would not result in the adoption of additional DSM programs or the expansion of any current DSM programs?
 - b. The Generating Utilities also believe that the current planning and certificating processes are adequate to ensure the utilities consider such programs. The Integrated Resource Plan ("IRP") regulation 807 KAR 5:584, Section 8(4)(a)(6), requires each generating utility to provide the reductions or increases in peak demand from new conservation and load management or other demand-side management programs. Cite any requirement included in the certificate process that requires such documentation.
- A-3. a. The Generating Utilities, including Duke, believe that appropriately crafted incentives could result in the adoption or expansion of current or additional DSM or energy efficiency programs. The thrust of the Generating Utilities' Joint Testimony on this subject is that the Commission already possesses the authority to create DSM incentives under KRS 278.285, which testimony Duke did not join.
 - b. The Generating Utilities are not aware of any such requirement included in the certificate process; however, as Mr. Bellar testified for the Generating Utilities at page 5, lines 4-6 of the Joint Testimony, "[G]iven that utilities generally seek CPCNs [Certificates of Public Convenience and Necessity] in accord with their established IRPs, CPCN proceedings are effectively preceded by energy efficiency and DSM considerations."

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 4

Responding Witness: John Wolfram / Lonnie E. Bellar

- Q-4. Refer to the Bellar Testimony, page 2, line 17 to page 4, line 7.
 - a. Mr. Bellar states that the Generating Utilities have an impressive array of successful energy efficiency and DSM strategies. Are there any programs that have not been implemented by every Generating Utility? If yes, describe each such program, identify the generating utility that has not adopted the program, and explain the reason why that utility has not adopted that program.
 - b. If not addressed in 4(a) above, identify the Generating Utilities with residential or commercial load control programs (for example, air-conditioners, water heaters, pool pumps). Explain why the Generating Utilities without such load control programs do not offer such direct load control.
 - c. Explain where consideration of renewables is specifically required in the IRP or certificate process.
 - d. Explain the relevance to this proceeding of the fact that the report "Kentucky's Energy Opportunities for Our Future: A Comprehensive Energy Strategy," a document released in February 2005, does not mention revision of any utility planning process.
- A-4. a. LG&E and KU have not adopted Refrigerator Replacement or Mobile Home New Construction programs. The Companies have considered a version of the former in the 2005 IRP and again in our upcoming IRP. The Companies have not explored options for the latter because they are seeking approval for an Energy STAR residential construction program at this time.
 - b. In 2001, the Companies began implementation of a load control program. Since then there have been nearly 115,000 devices connected which have

reduced LG&E and KU's peak demand by approximately 118 MW. The load control technology requires that the signal from the utility be able to reach the load control device. This is difficult and not cost effective in certain locations, primarily due to terrain/barrier issues.

- c. Concerning the IRP process, please see 807 KAR 5:058 § 8(2): "The utility shall describe and discuss all options considered for inclusion in the plan [IRP] including: . . . (d) Assessment of nonutility generation, including generating capacity provided by cogeneration, technologies relying on renewable resources, and other nonutility sources." Concerning the CPCN process, please see the Generating Utilities' response to Q-3.b. above, which applies equally to renewable resources as it does to DSM and energy efficiency.
- d. In his letter prefacing "Kentucky's Energy Opportunities for Our Future: A Comprehensive Energy Strategy," the Governor stated:

When I announced the formation of the Commonwealth Energy Policy Task Force, I outlined three principles to guide policy development:

- Maintain Kentucky's low-cost energy
- Responsibly develop Kentucky's energy resources
- Preserve Kentucky's commitment to environmental quality

The work of the task force, articulated through this comprehensive energy strategy, is consistent with these principles.

In short, in a report that received input from many participants, including environmental and conservation groups, and which was designed to be a comprehensive and forward-looking energy strategy for Kentucky, no mention of reforming planning processes was made. Though not conclusive proof, it is persuasive evidence of the sufficiency of the ability of current IRP and CPCN processes to account for DSM, energy efficiency, and renewable energy.

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 5

Responding Witness: David Sinclair

- Q-5. Refer to the discussion of "full-cost accounting" included on pages 6 and 7 of the Bellar Testimony. Identify the specific externalities that the Generating Utilities incorporate in their planning processes.
- A-5. The Companies include the cost of all goods and services required to provide reliable service to their customers. These costs include, but are not limited to, compliance with all regulations and laws by both it and vendors/suppliers. To the extent certain laws and regulations are intended to "internalize" the cost of externalities, these costs are fully captured and reflected in the planning process.

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Question No. 6

- Q-6. Although the Generating Utilities see no need to modify rate structures for achieving energy efficiency, what is the Generating Utilities' position regarding "revenue decoupling?"
- A-6. Speaking only for the Companies, revenue decoupling is a rate-making tool at the Commission's disposal under the current Kentucky statutory and regulatory regime. The Companies believe there are circumstances under which it may be appropriate for the Commission to employ revenue decoupling.

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 7

Responding Witness: Lonnie E. Bellar

- Q-7. Refer to the Bellar Testimony at page 7, lines 15-17. Explain whether additional opportunities exist to encourage the further development of energy efficiency and DSM programs through rate structures and cost recovery. Include in the explanation a discussion of the position of the Generating Utilities on the use of inclining block rates as well as other rate design techniques to discourage usage.
- A-7. Speaking only for the Companies, Kentucky's current statutory and regulatory structures allow for additional opportunities to encourage the further development of energy efficiency and DSM programs through rate structures and cost recovery. For example, the Companies currently have pending with the Commission an application for a new portfolio of innovative energy efficiency and DSM programs that the Companies believe will benefit their customers by creating new means and opportunities for customers to realize increased energy efficiency. The new suite of programs continues some tried-and-true efforts, such as residential and commercial load control, but it also creates new programs like the High-Efficiency Lighting Program, which will help more customers obtain compact fluorescent light bulbs to reduce their energy consumption.

In addition to these programs, the Companies have received from the Commission approval to conduct responsive pricing (i.e., time-of-use with a real-time, critical-peak component) and real-time pricing pilot programs, which the Companies are currently putting in place. In addition to new rate structures, as part of the pilot programs the Companies are employing new technology, such as smart meters, information displays, and programmable thermostats to enable customers to maximize their savings and to load-shift appropriately. Both of these programs will yield useful data about customers' responses to pricing structures that effectively reward them for load-shifting and load reduction that helps make more efficient use of the Companies' generating resources and power purchases. The Companies believe that cost-based rate structures of these kinds will result in

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Bellar

greater efficiency than inclining block rate structures, which simply penalize greater energy usage, regardless of the timing of customers' energy use.

Also, please see pages 2-4 of the Bellar Testimony filed on behalf of the Companies in this proceeding concerning other incentive and rate approaches the Commission could adopt to encourage further development of energy efficiency and DSM programs.

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Question No. 8

- Q-8. Refer to the discussion on page 2, line 9, through page 3, line 16, of the Bellar Testimony filed on behalf of Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E"). Mr. Bellar essentially supports annual reviews of utilities financial results to ensure that utility revenues remain consistent. What is the position of the Generating Utilities regarding such reviews?
- A-8. Speaking only for the Companies, please refer to the Companies' response to Question No. 1 and Question No. 2 of the first data request of the Commission staff for LG&E and KU.

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 9

- Q-9. Refer to the incentives set forth for energy efficiency on page 4, lines 4-19, of the Bellar Testimony filed on behalf of KU and LG&E. What is the position of the Generating Utilities regarding these incentives?
- A-9. Speaking only for the Companies, please refer to the Companies' response to Question No. 4 of the first data request of the Commission staff for LG&E and KU.



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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 10

- Q-10. Refer to the discussion of the proposed treatment of purchased power on page 5, lines 1-10, of the Bellar Testimony filed on behalf of KU and LG&E. What is the position of each of the Generating Utilities regarding the treatment proposed by Mr. Bellar?
- A-10. Speaking only for the Companies, please refer to the Companies' response to Question No. 5 of the first data request of the Commission staff for LG&E and KU.

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Response to First Data Request of Commission Staff Dated March 11, 2008

Question No. 11

- Q-11. Refer to the Bellar Testimony on behalf of KU and LG&E. Mr. Bellar discusses the demand-side management statute, KRS 278.285 and notes the "plethora of cost-effective" programs; however, the majority of these programs have been developed for residential and small commercial customers. KRS 278.285(3) states, "The commission shall allow individual industrial customers with energy intensive processes to implement cost-effective energy efficiency measures in lieu of measures approved as part of the utility's demand-side management programs if the alternative measures are not subsidized by other customer classes."
 - a. Describe in detail the actions taken by each of the Generating Utilities to ensure that its industrial customers are in compliance with this condition.
 - b. Have the Generating Utilities utilized any benchmark in terms of dollars spent or in terms of savings, dollars saved or energy saved, in order for industrial customers to qualify for the "opt-out" provision? Explain your response.
- A-11. The Companies do not currently offer DSM programs to industrial customers, negating the need to ensure compliance with the requirements of KRS 278.285(3).