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COMMISSION

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
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Frankfort, Kentucky 40601

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January 12, 2009

**RE: CONSIDERATION OF THE NEW FEDERAL STANDARDS OF
THE ENERGY INDEPENDENCE AND SECURITY ACT OF 2007
Case No. 2008-00408**

Dear Mr. Derouen:

Enclosed please find and accept for filing the original and ten (10) copies of Kentucky Utilities Company and Louisville Gas and Electric Company's Testimony of Lonnie E. Bellar, pursuant to the Order dated December 11, 2008 in the above mentioned docket.

Should you have any questions please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE NEW FEDERAL)
STANDARDS OF THE ENERGY) **CASE NO: 2008-00408**
INDEPENDENCE AND SECURITY ACT OF)
2007)

TESTIMONY OF
LONNIE E. BELLAR
VICE PRESIDENT, STATE REGULATION AND RATES
LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES
COMPANY

Filed: January 12, 2009

– 1 **Q. Please state your name, position and business address.**

2 A. My name is Lonnie E. Bellar. I am Vice President, State Regulation and Rates of
3 Kentucky Utilities Company (“KU”) and Louisville Gas and Electric Company
4 (“LG&E”) (collectively, the “Companies”), and an employee of E.ON U.S. Services, Inc.
5 My business address is 220 West Main Street, Louisville, Kentucky. A statement of my
6 professional history and education is attached to this testimony as Appendix A.

7 **Q. What is the purpose of your testimony?**

8 A. The purpose of my testimony is to offer the Companies’ considerations and
9 recommendations regarding whether the Commission should implement any of the
10 standards of the Energy Independence and Security Act of 2007 (“EISA 2007”) which
11 are the subject of this proceeding. EISA 2007, part of which amends the Public Utility
12 Regulatory Policies Act of 1978 (“PURPA”), contains four new PURPA standards and
13 one non-PURPA standard applicable to electric utilities and two new PURPA standards
14 applicable to gas utilities. EISA requires state utility commissions to consider each
15 standard and determine whether to implement any standard, decline to implement any
16 standard, or adopt a different or modified standard. On November 13, 2008, the
17 Commission issued an Order in this docket requesting that each utility consider each
18 applicable standard and recommend whether or not the Commission should implement
19 that standard. My testimony offers such considerations and recommendations.

20 **Q. What standards will your testimony address?**

21 A. As the Commission requested, my testimony addresses the four new PURPA standards
22 applicable to electric utilities: 1) Integrated Resource Planning; 2) Rate Design
23 Modifications to Promote Energy Efficiency Investments; 3) Consideration of Smart Grid

Investments; and 4) Smart Grid Information. In addition, my testimony will address the one non-PURPA standard applicable to electric utilities which relates to incentives for recovery, use and prevention of industrial waste. Lastly, my testimony will address the two PURPA standards applicable to gas utilities: 1) Energy Efficiency; and 2) Rate Design Modifications to Promote Energy Efficiency Investments.

Section 532(a)(16) – Integrated Resource Planning

Q. Do you believe that it is necessary for the Commission to adopt EISA § 532(a)(16), in whole or in part, in order to “integrate energy efficiency resources into utility, state and regional plans” and “adopt policies establishing cost-effective energy efficiency as a priority resource?”

A. No, the Commission’s current Integrated Resource Planning (“IRP”) Process requires utilities to “describe and discuss all options considered for inclusion in the plan including:… (b) Conservation and load management or other demand-side management programs not already in place;”¹

Q. What evidence is there to suggest that the current IRP processes are adequate in this respect?

A. Objectively, there are several reasons to believe that the current IRP processes are adequate to ensure that utilities consider all cost-effective energy efficiency and DSM strategies, even in the absence of statewide mandates.

First, Kentucky electric utilities already have an array of successful and cost-effective energy efficiency and demand-side management (“DSM”) programs.²

¹ 807 KAR 5:058 Section 8(2). See also, *In the Matter of: the Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company*, Case No. 2008-00148, 8-71.

² *In the Matter of: An Investigation of the Energy and Regulatory Issues in Section 50 of Kentucky's 2007 Energy Act*, Case No. 2007-00477, Overland Consulting Report at pp. 141-144.

1 Second, current IRP processes require complete supply-side analyses of all kinds
2 of means for satisfying projected demand. These analyses already take into account cost-
3 effective energy efficiency and DSM programs.

4 Further, in its order first establishing the IRP regulation, the Commission
5 approved informal, non-adversarial proceedings allowing each utility to file its own IRP,
6 leaving the Commission staff to assemble reports from a statewide perspective, rather
7 than mandating statewide planning per se.³ Later, in Administrative Case No. 387, the
8 Commission, faced with prospect of rising electric rates and perceived threats to its
9 ability to regulate effectively due to deregulation in surrounding states, maintained
10 existing IRP process rather than mandating statewide planning or standards.⁴ There is,
11 therefore, consistent and clear evidence from decades of IRP policy of (1) the sufficiency
12 of current IRP process and (2) an inclination away from statewide mandates and toward
13 more individualized planning and regulation.

14 **Q. So, the Commission already requires the consideration of energy efficiency**
15 **resources?**

16 A. Yes, the Commission already has this ability under KRS 278.285 and the Commission's
17 general rate-making authority. In particular, the Commission has the authority to approve
18 new and innovative DSM and energy efficiency programs, as well as the tools necessary
19 to implement those programs. Moreover, the Commission's current planning and
20 certificating processes are adequate to ensure that utilities consider such programs.

³ *In the Matter of An Inquiry into Kentucky's Present and Future Electric Needs and the Alternatives for Meeting Those Needs*, Admin Case No. 308, Order at 12 (Aug. 8, 1990).

⁴ *In the Matter of: A Review of the Adequacy of Kentucky's Generation Capacity and Transmission System*, Admin. Case No. 387, Order at 85-93 (Dec. 20, 2001).

1 **Q. Should the Commission implement this standard, decline to implement this**
2 **standard or adopt a different or modified standard?**

3 A. This standard is unnecessary for the reasons stated above. Therefore, the Commission
4 should not adopt this standard, or any variation thereof.

5 **Section 532(a)(17), Rate Design Modification to Promote**
6 **Energy Efficiency Investments –Electric Utilities**

7 **Q. Do you believe that it is necessary for the Commission to adopt this standard in**
8 **order to achieve its desired results - rate design that promotes energy efficiency**
9 **investments?**

10 A. No. As previously stated, the Commission already has the authority to approve new and
11 innovative DSM and energy efficiency programs. Indeed, as also stated above, the IRP
12 process requires their consideration.

13 In addition to the authority to approve new and innovative utility-proposed energy
14 efficiency and DSM programs, KRS 278.285, also allows the Commission to approve for
15 such programs: (1) full cost-recovery, (2) recovery of lost sales revenues, and (3)
16 “financial rewards” for implementing cost-effective programs. These cost recovery and
17 financial incentive provisions serve to “align utility incentives with the delivery of cost-
18 effective energy efficiency” and promote “energy efficiency investments.”

19 **Q. Could the adoption of the EISA standard actually restrict the Commission’s ability**
20 **to incent energy efficiency?**

21 A. Yes. The Commission’s current ability to incent energy efficiency investments through
22 ratemaking is flexible enough to allow for an infinite number of rate design alternatives.
23 However, EISA Section 532(a)(17) takes a more rigid approach, requiring the
24 consideration of specific rate-design alternatives. Thus, adopting EISA Section

— 1 532(a)(17) would only serve to limit the Commission’s current process for approving
2 such alternatives.

3 **Q. Do the Companies already employ rate designs that promote energy efficiency**
4 **Investments?**

5 A. Yes, as explained in more detail in the Companies most recent IRP filings the following
6 rate designs are already in use:

7 a) KU and LG&E Rate Schedule CSRI, CSR2, and CSR3
8 (Curtable Service Riders) - This program is aimed at decreasing
9 demand in the commercial and industrial sectors during system
10 peak periods. In return for a rate incentive, participating customers
11 agree to reduce demand to a predetermined level upon the
12 Companies’ request.

13 b) KU Rate Schedules LCI-TOD & LMP-TOD and LI-TOD
14 (Time-of-Day Rates) – This program is targeted at the commercial
15 and industrial sectors. A differential in on- and off-peak demand
16 charges is used to encourage large customers to shift part of their
17 demand from system peak periods to off-peak periods.

18 c) LG&E Rate Schedule LC-TOD, LP-TOD, and LI-TOD (Time-
19 of-Day Rates) – This program is targeted at the commercial and
20 industrial sectors. A differential in on- and off-peak demand
21 charges is used to encourage large customers to shift part of their
22 demand from system peak periods to off-peak periods.

23 d) KU and LG&E Rate Schedule NMS (Net Metering Service) -
24 In 2008, KRS 278.465 was amended to allow different types of
25 generation to qualify for the Net Metering Service. If a customer
26 generates electricity from solar, wind, biomass, biogas, or hydro
27 energy for the primary purpose of supplying all or part of their own
28 electricity requirements, the customer shall receive a credit for the
29 net delivery, if electricity generated by the customer and fed back
30 to the Company’s system exceeds the electricity supplied to the
31 customer from the Company.

32 e) KU and LG&E Rate Schedule Load Reduction Incentive (LRI) -
33 This program is aimed at decreasing demand during peak periods.
34 Customers with standby generators of a minimum 500 kW receive
35 a rate incentive by agreeing to carry that load upon the Companies’
36 request.

1 f) Residential Conservation Program - This program is designed to
2 provide customers with an on-site home energy audit that will
3 provide opportunities for improved energy efficiency.

4 g) Commercial Conservation Program - The objective of this
5 program is to identify energy efficiency opportunities for
6 commercial class customers and assist them in implementing them.

7 h) Demand Conservation Program - This program cycles
8 residential and commercial central air conditioning units, water
9 heaters, and residential pool pumps. It is designed to provide
10 customers with an incentive to allow the Companies to interrupt
11 service to their central air conditioners, water heaters, and/or pool
12 pumps at those peak demand periods when the Companies need
13 additional resources to meet customer demand.

14 i) WeCare Program - This program is designed to reduce the
15 energy bills of customers that are less fortunate by weatherizing
16 their homes.

17 j) Responsive Pricing Program - This pilot program consists of a
18 responsive pricing rate structure using time of use (TOU) and real
19 time, critical peak pricing components.

20 k) Real-Time Pricing - This pilot program is voluntary and offers
21 large commercial and industrial customers the opportunity to
22 modify their consumption patterns in order to manage their electric
23 energy costs by increasing or decreasing load in response to hourly
24 cost-based prices.

25 l) Energy Star New Homes - The objective of this program is to
26 reduce residential energy usage and facilitate market
27 transformation by creating a shift in builders' new home energy
28 efficient construction practices.

29 m) Residential and Commercial HVAC Diagnostics and Tune Up
30 Program - The objective of this program is to reduce peak demand
31 and energy use by performing a diagnostic check of the
32 performance of residential and small commercial unitary air
33 conditioning and heat pump units. Units that are determined to
34 have specific problems will be eligible for reduced rate on the
35 corrective action through a HVAC company which is part of the
36 authorized dealer network.

37 **Q. Should the Commission implement this standard, decline to implement this**
38 **standard or adopt a different or modified standard?**

— 1 A. The Commission should not adopt this standard. As stated above, the Commission’s
2 current regulatory framework is broader and more flexible than the EISA standard as can
3 be seen from the Companies’ vast array of energy efficiency programs. Thus, the
4 adoption of this standard would be cumbersome and unnecessary.

5 **Section 1307(a)(16), State Consideration of Smart Grid Investments**

6 **Q. Does EISA 2007 define a “qualified smart grid system”?**

7 A. No. Section 1301 states “It is the policy of the United States to support the
8 modernization of the Nation’s electricity transmission and distribution system to maintain
9 a reliable and secure electricity infrastructure that can meet future demand growth and to
10 achieve each of the following, which together characterize a Smart Grid.”

11 (1) Increased use of digital information and controls
12 technology to improve reliability, security, and efficiency of the
13 electric grid.

14 (2) Dynamic optimization of grid operations and resources,
15 with full cyber-security.

16 (3) Deployment and integration of distributed resources and
17 generation, including renewable resources.

18 (4) Development and incorporation of demand response,
19 demand-side resources, and energy-efficiency resources.

20 (5) Deployment of “smart” technologies (real-time,
21 automated, interactive technologies that optimize the physical
22 operation of appliances and consumer devices) for metering,
23 communications concerning grid operations and status, and
24 distribution automation.

25 (6) Integration of “smart” appliances and consumer
26 devices.

27 (7) *Deployment and integration of advanced electricity*
28 *storage and peak-shaving technologies, including plug-in electric*
29 *and hybrid electric vehicles, and thermal-storage air conditioning.*

30 (8) Provision to consumers of timely information and
31 control options.

32 (9) Development of standards for communication and
33 interoperability of appliances and equipment connected to the
34 electric grid, including the infrastructure serving the grid.

35 (10) Identification and lowering of unreasonable or
36 unnecessary barriers to adoption of smart grid technologies,
37 practices, and services.

— 1 This is one definition of Smart Grid, at present, the industry has yet to reach a consensus
2 on a common definition or description of a “smart grid.” By choosing one definition
3 now, the Commission could effectively limit the scope and consideration of future smart
4 grid technologies and investment in the state of Kentucky. As smart grid technologies
5 evolve, we, as a state, should strive to remain open to smart grid technologies at all points
6 in the energy pathway. Now is not the time to implement such a standard.

7 **Q. Is the industry still developing a Smart Grid framework, including protocols and**
8 **model standards?**

9 A. Yes, EISA Section 1305 gives the National Institute of Standards and Technology
10 (“NIST”) primary responsibility for coordinating the development of a framework that
11 includes protocols and model standards for information management in order to achieve
12 interoperability of smart grid devices and systems. An initial report on progress toward
13 recommended or consensus standards and protocols was due one year after the enactment
14 of EISA 2007, but has not been issued as of January 12, 2009. NIST will issue reports at
15 such times as developments warrant and a final report when NIST determines that the
16 work is completed or that a federal role is no longer necessary. Without the consensus
17 standards recommended by this group, it is unlikely that the various Smart Grid devices
18 and systems deployed throughout North America will interoperate.

19 **Q. Are the Companies already testing and implementing components of smart grid**
20 **technologies?**

21 A. Yes, the Companies, as well as many other utility companies nationwide, are in the early
22 stages of testing and implementing smart grid technologies. For example, the Companies
23 have launched a Responsive Pricing and Smart Metering Pilot program consisting of 100

— 1 customers for rate RS and 50 customers eligible for rate GS in a given year. The rate
2 structure of the program utilizes time of use (“TOU”) and real time, critical peak pricing
3 components. Customers in the Responsive Pricing and Smart Metering Pilot program
4 receive smart thermostats, energy use display devices and water heater/pool pump
5 controllers to automate energy use based on the price of electricity. On October 7, 2008,
6 the Commission issued an Order approving LG&E’s motion to allow 15 additional
7 residential customers to be served under this program. The request was made by LG&E
8 to allow General Electric Company (“GE”) to install and test demand-side-management-
9 ready household appliances in conjunction with the program.

10 **Q. Should utilities need to demonstrate the consideration of smart grid systems prior to**
11 **undertaking investments in nonadvanced grid technologies?**

12 A. No. Currently the industry is still developing and testing smart grid systems. This type
13 of approval places an operational burden on the utilities to provide safe and reliable
14 service.

15 **Q. In your opinion, should the Commission implement this standard, decline to**
16 **implement this standard or adopt a different or modified standard?**

17 A. This standard is unnecessary and premature and should not be adopted. While the
18 Companies agree with the smart grid standards listed in concept, it is premature to adopt
19 them because of the nascent state of smart grid technologies.

20 **Section 1307(a)(17), Smart Grid Information**

21 **Q. Do you believe that the Commission should adopt a standard that requires utilities**
22 **to provide their customers with access to specific information regarding usage, time-**
23 **based electricity prices and power sources, among other information required by**
24 **EISA?**

1 A. No. As stated above, smart grid technologies are in the early stages of development. The
2 availability of information discussed in Section 1307(a)(17) will naturally increase as
3 smart grid technologies inevitably emerge and become the industry standard. For
4 example, customers in the Responsive Pricing Program already have a TOU rate structure
5 with three different rates for different times during different days and a real-time, critical
6 peak price that is in effect during time of particularly high demand. Requiring electric
7 companies to provide such information now, *prior* to the emergence of the corresponding
8 in-home technologies, would be cumbersome and expensive.

9 **Q. Do you believe the Commission should implement this standard, decline to
10 implement this standard or adopt a different or modified standard?**

11 A. The Commission should not implement this standard. This information will become
12 more widely available as the requisite technology emerges.

13 **Section 374, Additional Incentives for Recovery,**
14 **Use and Prevention of Industrial Waste Energy**

15 **Q. Do you believe the Commission should adopt Section 374, Additional Incentives for
16 Recovery Use and Prevention of Industrial Waste Energy?**

17 A. No, the Companies have had Small Qualifying Facilities, and Large Qualifying Facilities
18 tariffs on file with the Commission for more than 20 years and very few customers are on
19 them. Indeed, the Companies industrial customer base largely consists of manufacturers,
20 which do not produce waste energy as contemplated by EISA 2007.

21 While the Companies support the capture and use of waste energy in theory, we
22 do not support the need for additional incentives over and above the available rates.
23 Therefore, this standard is unnecessary for this reason and the Commission should not
24 adopt this standard, or any variation thereof.

1 Section 532(b)(5), Energy Efficiency - Gas Utilities

2 Q. Do you believe that it is necessary for the Commission to adopt this section in order
3 to promote “the integration of energy efficiency resources into the plans and
4 planning processes of natural gas utilities” and “energy efficiency as a priority
5 resource in the plans and planning process of the natural gas utility.”?

6 A. No. As previously stated, the Commission already has the authority to approve new and
7 innovative energy efficiency programs under KRS 278.285. Indeed, the Companies
8 already have DSM programs in place which promote energy efficiency. These programs
9 integrate energy efficiency resources into the Companies’ planning processes. Such
10 programs include energy efficiency audits and weatherization programs.⁵

11 Q. Should the Commission implement this standard, decline to implement this
12 standard or adopt a different or modified standard?

13 A. The Commission should not adopt this standard because it is unnecessary.

14 Section 532(b)(6), Rate Design Modification to Promote
15 Energy Efficiency Investments – Gas Utilities

16 Q. Do you believe that it is necessary for the Commission to adopt this section in order
17 to encourage energy efficiency investment?

18 A. No. As stated above, Commission already has this ability under 278.285. Specifically,
19 the Commission has the authority to approve new and innovative DSM and energy
20 efficiency programs, as well as the tools and incentives necessary to implement those
21 programs. The DSM statute provides for the recovery of DSM program costs, including
22 incentives, promotional and administrative costs. Utilities are also permitted recovery of
23 lost revenues resulting from customer efficiency and conservation.

⁵ In the Matter of: The Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company, Case No. 2008-00148.

1 The Commission also has the ability to encourage energy efficiency investment
2 under its general rate making authority. In *In the Matter of: Application of Louisville*
3 *Gas and Electric Company for an Adjustment of Electric and Gas Base Rates*, Case No.
4 2008-00252, the Companies are supporting a move toward decoupling revenues from
5 volumes by increasing the revenues received from the monthly customer charge. This
6 move will separate fixed-cost recovery from the volume of transportation or sales service
7 provided to the customer. Thus, the current rate designs help to promote energy
8 efficiency as customers are encouraged through rates to be more efficient.⁶

9 **Q. Could the adoption of this standard actually limit the Commission’s ability to incent**
10 **energy efficiency?**

11 A. Yes. Like EISA Section 532(a)(17), Section 532(b)(6) takes a more rigid approach to
12 rate design modification to promote energy efficiency investments. The Commission’s
13 current ability to incent energy efficiency investments through ratemaking is flexible
14 enough to allow for an infinite number of rate design alternatives. However, EISA
15 Section 532(b)(6) requires the consideration of specific rate-design alternatives. Thus,
16 adopting the section would only serve to inhibit the Commission’s current process for
17 approving such alternatives.

18 **Q. Should the Commission implement this standard, decline to implement this**
19 **standard or adopt a different or modified standard?**

⁶ *In the Matter of: Application of Louisville Gas and Electric Company for an Adjustment of Electric and Gas Base Rates*, Case No. 2008-00252, Application at Vol. 5, p 21, “In general, we tried to develop rates that more closely reflect the cost of providing service. Therefore, one of our key objectives was to bring the unit charges more in line with the unit costs derived from the cost of service study. LG&E’s sales rates consist of a Customer Charge and a Distribution Cost Component.”

1 A. The Commission should decline to implement this standard. The Commission's current
2 regulatory framework is broader and more flexible than the EISA standard; thus its
3 adoption would be cumbersome and unnecessary.

4 **Q. Does this conclude your testimony?**

5 A. Yes.

APPENDIX A

Lonnie E. Bellar

E.ON U.S. Services Inc.
220 West Main Street
Louisville, Kentucky 40202

Education

Bachelors in Electrical Engineering;
University of Kentucky, May 1987
Bachelors in Engineering Arts;
Georgetown College, May 1987
E.ON Academy, Intercultural Effectiveness Program: 2002-2003
E.ON Finance, Harvard Business School: 2003
E.ON Executive Pool: 2003-2007
E.ON Executive Program, Harvard Business School: 2006
E.ON Academy, Personal Awareness and Impact: 2006

Professional Experience

E.ON U.S.

Vice President, State Regulation and Rates	Aug. 2007 - Present
Director, Transmission	Sept. 2006 – Aug. 2007
Director, Financial Planning and Controlling	April 2005 - Sept. 2006
General Manager, Cane Run, Ohio Falls and Combustion Turbines	Feb. 2003 – April 2005
Director, Generation Services	Feb. 2000 – Feb. 2003
Manager, Generation Systems Planning	Sept. 1998 – Feb. 2000
Group Leader, Generation Planning and Sales Support	May 1998 – Sept. 1998

Kentucky Utilities Company

Manager, Generation Planning	Sept. 1995 – May 1998
Supervisor, Generation Planning	Jan. 1993 – Sept. 1995
Technical Engineer I, II and Senior, Generation System Planning	May 1987 – Jan. 1993

Professional Memberships

IEEE

Civic Activities

E.ON U.S. Power of One Co-Chair – 2007
Louisville Science Center – Board of Directors – 2008
Metro United Way Campaign – 2008