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April 24, 2009

Via Federal Express

Jeff DeRouen
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

RECEIVED

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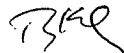
**PUBLIC SERVICE
COMMISSION**

Re: In the Matter of: Consideration of the New Federal
Standards of the Energy Independence and Security Act of 2007,
PSC Case No. 2008-00408

Dear Mr. DeRouen:

Enclosed on behalf of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp. and Meade County Rural Electric Cooperative Corporation are an original and ten copies of their responses to the Commission Staff's Second Data Request. I certify that a copy of this letter and a copy of the responses have been served on the attached service list.

Sincerely,



Tyson Kamuf

TAK/ej
Enclosures

cc: David A. Spainhoward
Kelly Nuckols
Sandy Novick
Burns Mercer
Jack Gaines
Service List

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Service List
Administrative Case No. 2008-00408

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VP Rates & Regulatory Affairs
Atmos Energy Corporation
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Owensboro, KY 42303

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Manager
Taylor County R.E.C.C.
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Christopher S. Perry
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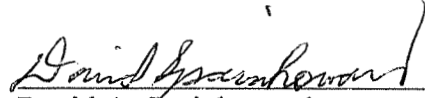
Bobby D. Sexton
President/General Manager
Big Sandy R.E.C.C.
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Mark Stallons
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Errol K. Wagner
Director of Regulatory Services
American Electric Power
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P.O. Box 5190
Frankfort, KY 40602

VERIFICATION


I verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



David A. Spainhoward

COMMONWEALTH OF KENTUCKY)
COUNTY OF Henderson)

SUBSCRIBED AND SWORN TO before me by David A. Spainhoward on this the 23rd
day of April, 2009.



Notary Public, Ky. State at Large
My Commission Expires 1-12-13

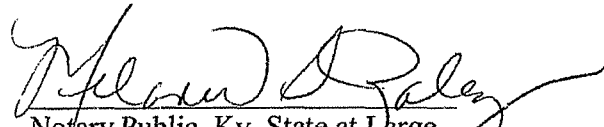
VERIFICATION

I verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.


Burns E. Mercer

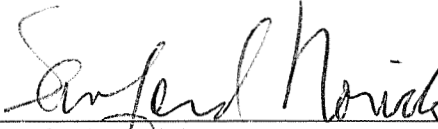
COMMONWEALTH OF KENTUCKY)
COUNTY OF Mesade)

SUBSCRIBED AND SWORN TO before me by Burns E. Mercer on this the 23 day of April, 2009.


Notary Public, Ky. State at Large
My Commission Expires 3/18/2012

VERIFICATION

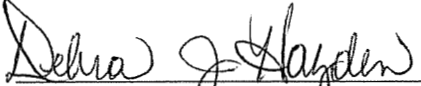
I verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Sanford Novick

COMMONWEALTH OF KENTUCKY)
COUNTY OF Miss)

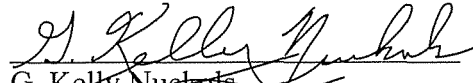
SUBSCRIBED AND SWORN TO before me by Sanford Novick on this the 23rd day of April, 2009.



Notary Public, Ky. State at Large
My Commission Expires 5-24-11


VERIFICATION

I verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.


G. Kelly Nuckols

COMMONWEALTH OF KENTUCKY)
COUNTY OF DAVIES)

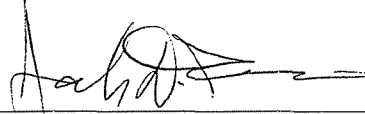
SUBSCRIBED AND SWORN TO before me by G. Kelly Nuckols on this the 25th day of April, 2009.



Notary Public, Ky. State at Large
My Commission Expires 2/21/2010

VERIFICATION

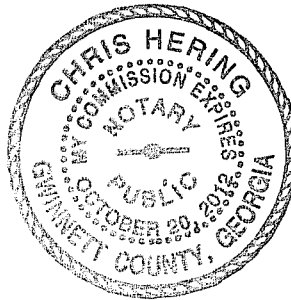
I verify, state, and affirm that the data request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

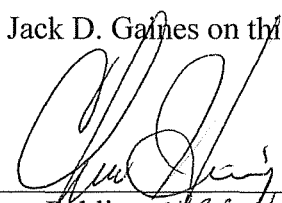


Jack D. Gaines

STATE OF GEORGIA)
COUNTY OF DEKALB)

SUBSCRIBED AND SWORN TO before me by Jack D. Gaines on this the 21st day of April, 2009.





Notary Public, CHRIS HERING
My Commission Expires 10/20/12

RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 5)** Refer to the Testimony of Christopher S. Perry (“Perry Direct”), page 12,
2 and the response of Owen Electric to Staff’s Initial Data Request, Item 40, page 4,
3 concerning the discussion of a per-meter charge or a higher TIER allowance supporting
4 investments in energy efficiency programs.

5 a. Explain whether you agree with the positions of Fleming-Mason
6 and Owen Electric on this issue.

7 b. Do you believe that a per-meter surcharge is preferable to the
8 typical per-kWh DSM Surcharge? Explain your answer.

9
10 **Response)** a. Electric cooperatives are owned by their members who are their
11 customers. Ultimately, the members must provide the funding through rates for all of the
12 costs associated with investing in and implementing energy efficiency programs.
13 Moreover, the effects of revenue erosion that energy conservation can have when rates
14 are not devoid of throughput incentives must also be ultimately offset by the members
15 through rates. It is therefore imperative that the costs of energy efficiency initiatives are
16 fully recognized in a cooperative’s revenue requirements and correspondingly in the
17 rates. Expenses and revenue erosion, net of savings, associated with energy efficiency
18 initiatives would increase the revenue requirement on a dollar for dollar basis.
19 Capitalized investments in energy efficiency would need to be funded through equity
20 capital from margins, debt capital, or a combination of the two. Regardless of the
21 funding mix, capitalized investments in energy efficiency would increase a cooperative’s
22 margin requirement (net of any associated cost savings) and correspondingly its TIER
23 requirement if equity is to be maintained at the level it would have been had the
24 cooperative not invested in capitalized energy efficiency initiatives. Therefore, Jackson
25 Purchase Energy Corporation (“JPEC”), Kenergy Corp. (“Kenergy”), and Meade County
26 Rural Electric Cooperative Corporation (“Meade County RECC”) agree that a higher
27 TIER allowance may be required by a cooperative to fund capitalized investments in
28 energy efficiency initiatives.

RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
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April 24, 2009

1 b. Compared to a DSM adder, a charge per meter is a simpler and
2 more certain way to recover the revenue requirement. However, there is not a direct cost
3 relationship between a charge per meter and energy efficiency. By their very nature,
4 costs associated with energy efficiency either are intended to benefit energy consumers or
5 are needed to reduce costs caused by energy consumers. Therefore, it may be more
6 appropriate from a cost of service viewpoint to recover energy efficiency costs based on
7 usage.

8
9 **Witnesses)** G. Kelly Nucklols
10 Sanford Novick
11 Burns E. Mercer
12 Jack D. Gaines

RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 13)** Refer to the responses to Staff's Initial Data Request, Items 12-14,
2 regarding decoupling and eliminating the throughput incentive. While the response to
3 Item 14.b. states that Big Rivers' members are not planning to pursue the rate design
4 options described in that response, explain whether the member cooperatives oppose the
5 method described in Item 14.a.1. of the response, which generally conforms to the
6 definition of a straight fixed-variable rate design.

7
8 **Response)** JPEC, Kenergy, and Meade County RECC oppose the method described
9 in the response to Item 14.a.1 of the Staff's Initial Data Request. The described method
10 would result in all fixed distribution costs, both customer related and demand related,
11 being included in the customer charges of the rates. Demand related costs are incurred as
12 a function of load, and rates should allocate demand related cost recovery based on load.
13 In theory, demand charges should be used to recover demand related costs. As a practical
14 matter, energy charges are used for most customers and almost exclusively for residential
15 customers. Although the result is that some "through put" incentive would remain in the
16 rate design, doing so is preferable from a cost based rate design perspective. Recovering
17 the demand related fixed distribution costs through the customer charge is not a cost
18 based rate application.

19
20 **Witnesses)** G. Kelly Nucklols
21 Sanford Novick
22 Burns E. Mercer
23 Jack D. Gaines
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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 14)** Refer to Kenergy Corporation's ("Kenergy") response to Staff's Initial
2 Data Request, Item 15. Kenergy describes the cost-effective benefits of Advanced Meter
3 Infrastructure ("AMI") technology, but does not address the larger question. Using
4 current technology, does Kenergy believe that the overall cost of an AMI system can be
5 cost-effective such that implementation on a large scale can be justified on a cost-benefit
6 basis?

7
8 **Response)** It is Kenergy's belief, and it will be the focus of Kenergy's final business
9 plan, to show that full implementation of an AMI system will be cost-effective.

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11 **Witness)** Sanford Novick
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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 15)** Refer to Kenergy's response to Staff's Initial Data Request, Item 16. Is it
2 correct that, given the requirements for participation, only one industrial customer of
3 Kenergy will be eligible to participate in the real-time pricing pilot program, or is it likely
4 that additional customers will be identified that are eligible? If only one customer is
5 eligible, has Kenergy considered changing the requirements to enable more participation?
6

7 **Response)** All new industrial customers with a load of 5 MW or greater are eligible to
8 participate in the real-time pricing pilot program, and all existing Kenergy industrial
9 customers expanding their load by 5 MW or greater are eligible to participate in the real-
10 time pricing pilot program. One new prospective industrial customer with a load of 5
11 MW or greater has been presented the opportunity to participate in the real-time pilot
12 program since the pilot began. This customer has not made a final decision to locate in
13 Kenergy's service territory. No existing industrial customers have expanded their load
14 by 5 MW since the pilot program began. Kenergy will continue to promote real-time
15 pricing to all new or expanding industry that qualify for Kenergy's Rate Schedule 41.
16

17 **Witness)** Sanford Novick
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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
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TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 16)** Refer to Jackson Purchase Energy Corporation's ("Jackson Purchase")
2 response to Staff's Initial Data Request, Item 20. Jackson Purchase explains the
3 advantages of the Canon AMR system it selected for its pilot AMR program.

4 a. Is the Canon system upgradeable for potential future AMI
5 requirements?

6 b. Provide a cost comparison between the Canon system and other
7 AMR systems considered by Jackson Purchase that were considered less capable than the
8 Canon system.

9
10 **Response)** a. The Cannon system is upgradeable. Consumer messaging can be
11 provided via a number of ways to provide JPEC's member-customers with useful
12 information. Today, this can be facilitated via web portals on the internet. Cannon is set
13 to release next year additional capability for member notification and the presentation of
14 additional types of information. Cannon is in development of Zig Bee devices which will
15 allow control and interaction with member devices via a Home Area Network. Member
16 web access portals are available as software interfaces to Exceleron's Prepaid Account
17 Management System. In addition, the information available from the Cannon modules
18 allows JPEC to provide better information to its members concerning billing questions,
19 blinking light/outage calls, voltage inquiries, voltage profiles, etc.

20 b. JPEC evaluated two systems in April 2006. Those two systems
21 were the Cannon system and the TWACS system. At the time of presentation to the
22 board of directors, full system deployed costs (including installation costs) were
23 estimated to be \$4,800,000 for the Cannon system and \$4,300,000 for the TWACS
24 system. The AMI system was originally included in the 2006/2007 Construction Work
25 Plan but was carried over to the Construction Work Plan for 2009/2010.

26
27 **Witness)** G. Kelly Nuckols
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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 40)** Refer to the response of Duke Kentucky to Staff's Initial Data Request,
2 Item 36, Attachment (a), pages 17-18. Describe the extent to which your plans for smart
3 grid reflect the addition of infrastructure and new technology that will enhance the
4 integration of demand response and energy efficiency into your system.

5
6 **Response)** Big Rivers and its member distribution cooperatives (the "Members")
7 have not developed specific smart grid plans. The Members are in the process of
8 evaluating or deploying AMI for the purpose of meter reading and are evaluating other
9 potential benefits of AMI, such as demand response and energy efficiency measurement
10 and verification.

11
12 JPEC, in addition to the installation of an AMI system, has been installing an improved
13 communications system to their substations. This system, which incorporates the use of
14 fiber optic cables and unlicensed, high speed 900 MHz radios, provides JPEC with the
15 ability to send and receive large amounts of data to each substation much faster than the
16 older radio system used exclusively for SCADA. JPEC is essentially establishing a
17 network connection at each of their substation sites with this system.

18
19 Additional smart grid infrastructure will require investigation and analysis.
20 Communication in rural areas of western Kentucky, whether broadband or mobile
21 wireless, is very limited and poses challenges in a significant portion of the Member's
22 service territories.

23
24 **Witnesses)** David A. Spainhoward
25 G. Kelly Nucklols
26 Sanford Novick
27 Burns E. Mercer

RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 41)** Refer to the response of Duke Kentucky to Staff's Initial Data Request,
2 Item 36, Attachment (c), pages 49-50. Describe the extent to which your plans for smart
3 grid incorporate the addition of communication infrastructure that will enhance the use of
4 distributed resources on your system.

5
6 **Response)** Big Rivers and its Members have not developed specific smart grid plans.
7 The Members are all in the process of evaluating or deploying AMI for the purpose of
8 meter reading and are evaluating other potential benefits of AMI, such as demand
9 response and energy efficiency measurement and verification.

10
11 Additional communication infrastructure to enhance the use of distributed resources has
12 not been evaluated at this time. The need for additional communication infrastructure
13 will require further investigation and evaluation.

14
15 **Witnesses)** David A. Spainhoward
16 G. Kelly Nucklols
17 Sanford Novick
18 Burns E. Mercer

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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
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April 24, 2009

1 **Item 42)** It does not appear from the testimony and data responses that any of the
2 electric utilities are considering networking options for smart grid, such as partnering
3 with broadband and mobile wireless providers to provide network connections, as
4 opposed to investing in the construction of their own networks. Explain whether such
5 partnering is being explored on either a utility-specific or industry-wide level.
6

7 **Response)** Big Rivers, Kenergy and Meade County RECC are not currently exploring
8 communication partnerships with broadband or mobile wireless providers for networking
9 options for smart grid.
10

11 JPEC has partnered with Iris Networks to build a fiber optic communications system
12 through portions of the JPEC service territory. This system currently provides network
13 connections to six JPEC substations and is being expanded to include six additional
14 substations.
15

16 **Witnesses)** David A. Spainhoward
17 G. Kelly Nucklols
18 Sanford Novick
19 Burns E. Mercer
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RESPONSE OF BIG RIVERS ELECTRIC CORPORATION,
JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP.,
AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION
TO THE SECOND DATA REQUEST OF COMMISSION STAFF
ADMINISTRATIVE CASE NO. 2008-00408
April 24, 2009

1 **Item 43)** It does not appear from the testimony and data responses that any of the
2 electric utilities have indicated to what extent they have prioritized the smart grid
3 elements they plan to pursue. Provide a list showing how you would have prioritized the
4 items in your smart grid plan along with an explanation thereof.

5
6 **Response)** Big Rivers and its Members have not developed specific smart grid plans.
7 The Members are all in the process of evaluating or deploying AMI for the purpose of
8 meter reading and are evaluating other potential benefits of AMI, such as demand
9 response and energy efficiency measurement and verification.

10
11 Neither Big Rivers nor its Members have a priority list with regard to smart grid
12 infrastructure.

13
14 **Witnesses)** David A. Spainhoward
15 G. Kelly Nucklols
16 Sanford Novick
17 Burns E. Mercer

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