Frost Brown Todd LLC
ATTORNEYS

KENTUCKY · OHIO · INDIANA · TENNESSEE · WEST VIRGINIA

Mark David Goss
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March 30, 2009

Via Hand-Delivery

Mr. Jeffrey Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P. O. Box 615
Frankfort, Kentucky 40602-0615

Re: PSC Case No. 2008-00408

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case an original and ten copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the Initial Data Request of Commission Staff, dated March 16, 2009.

Sincerely yours,

Mark David Goss

Enclosures

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 INDEPENDENCE AND SECURITY ACT OF 2007	))))	**CASE NO. 2008-00408**

CERTIFICATE

STATE OF WISCONSIN)
)
COUNTY OF DANE)

Robert J. Camfield, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Initial Data Request in the above-referenced case dated March 16, 2009, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 30th day of March, 2009.

Notary Public

My Commission expires: 9/5/10

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Paul A. Dolloff, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Initial Data Request in the above-referenced case dated March 16, 2009, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 27th day of March, 2009.

Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

James C. Lamb, Jr., being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Initial Data Request in the above-referenced case dated March 16, 2009, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

James C. Lamb, Jr.

Subscribed and sworn before me on this 26th day of March, 2009.

Peggy S. Griffin
Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Isaac S. Scott, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Initial Data Request in the above-referenced case dated March 16, 2009, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Isaac S. Scott

Subscribed and sworn before me on this 26th day of March, 2009.

Peggy S. Griffin
Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Initial Data Request in the above-referenced case dated March 16, 2009, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Julia J. Tucker

Subscribed and sworn before me on this 26th day of March, 2009.

Peggy S. Griffin
Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

RESPONSES TO COMMISSION STAFF'S INITIAL DATA REQUEST TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED MARCH 16, 2009

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 39
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 39. State whether EKPC and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's IRP regulation, 807 KAR 5:058. Explain why or why not.

Response 39.
EKPC and its members believe the current IRP filing process meets and/or exceeds the EISA 2007 standard. The regulation is comprehensive and inclusive of cost-effective energy efficiency measures. The Commission has defined a methodology by which they systematically review each utility's long range plans and offer suggestions and recommendations. While the Commission does not formally approve the utility's IRP, it does offer meaningful suggestions. Therefore, when the utility brings an action before the Commission that does require official action, the Commission's recommendations on the utility's IRP filing can be addressed in a formal manner.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 40
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 40. Explain in detail how EKPC and each member treat energy efficiency as a priority resource. Identify and describe any goals EKPC and each member has developed in terms of kWh (or KW or MW if more appropriate) displaced or saved.

Response 40.
EKPC The expected impact on customers for integrating energy efficiency into the utility's plans are explained in detail in the IRP filings. EKPC utilizes DSManager to evaluate programs and in that analysis the various test identified in the EISA Standards Manual (Participant Test, RIM Test, TRC Test, and Program Administrator Cost Test) are analyzed. EKPC and its members identified 9,316,000 MWh of cost effective energy efficiency programs in its 2006 IRP. These savings would be realized over the life time of the programs.
Members Big Sandy notes that it is hard to promote energy efficiency with current tariffs requiring more sales to make margins.
Blue Grass, Clark, Cumberland Valley, Inter-County, Jackson Energy, Nolin, and Shelby Energy have not set any goals in terms of kWh, but do treat energy efficiency as a priority resource by offering several DSM programs over the years.

In addition, Blue Grass also has set a goal to improve load factor which in itself promotes energy efficiency.

Fleming-Mason and Grayson have for many years treated energy efficiency as a priority, more for its members' sake rather than theirs, because of its inability to develop rates that would benefit their finances; no goals have been developed.

Farmers has not set goals, but has worked in conjunction with EKPC to promote energy efficiency for many years. Farmers feels that changes in rate design will be necessary to further encourage electric cooperatives to promote energy efficiency and conservation without compromising the recovery of distribution system fixed costs.

Salt River agrees with the position taken by EKPC.

South Kentucky offers a variety of DSM programs to meet the needs of its members, and has projected goals for 2009 of an annual reduction of 1,620,000 kWh, a winter peak reduction of 1,204 kW, and a summer peak reduction of 607 kW.

Owen works hard to help its members become more energy efficient. Owen gives out thousands of compact fluorescent light bulbs (CFLs), performs energy audits over the entire system, and offers rebates on energy efficient home building practices and existing home improvements. Owen conducts energy efficiency seminars for many groups and organizations such as Community Action agencies, senior citizen groups, and schools, in addition to hosting energy efficiency "best practices" workshops for area builders and HVAC contractors.

Considering the possibility of sweeping "Climate Change" legislation, Owen is committed to helping its members meet the energy challenges of the future. Owen is presently in the process of developing a strategic initiative to study all aspects of energy innovation. Owen defines energy innovation as energy efficiency, energy conservation, demand side management, and distributed generation. The strategic initiative as outlined below was presented to the Board on March 26, 2009. Owen expects to continue to refine its energy innovation plan and begin implementation of the study phase this summer.

OWEN ELECTRIC COOPERATIVE
PROPOSED ADDITIONAL STRATEGIC CHALLENGE 2009
March 26, 2009

STRATEGIC CHALLENGES	KEY ACTION ITEMS
CHALLENGE 6 - Improve "Member Satisfaction"	
STRATEGY A) Energy Innovation	1 Align the culture and business model of OEC to fully meet our members need to manage their energy costs, preserve resources, and consume energy wisely by implementing a culture of "Energy Innovation" within OEC and its membership. 2 Investigate, develop, and implement energy innovation pilot projects such as home energy efficiency improvements. Measure and verify the energy and demand savings. 3 Develop and understand the relationship between energy innovation member incentives and kWh and kW demand savings. Collect and organize data in such a manner that we begin to understand how increasing or decreasing member incentives affect kWh or kW demand savings. 4 Investigate technological opportunities and develop a plan and pilot project to provide our members with energy usage data and pricing information that enables our members to manage their kWh consumption, their monthly energy bill, and their home comfort.
B) Communication Plan	1 Develop a member education plan to communicate, educate, and encourage energy innovation. Promote controlling costs, preserving resources, and using energy wisely. Promote energy innovation as a tool to mitigate rising energy costs.
C) Rate Design	1 Decouple our revenue from kWh sales by slowly, over a reasonable period of time, increasing our customer charge to cover our fixed costs. This will allow OEC to become kWh sales neutral and to build a culture of energy innovation where we have no financial disincentives toward energy innovation. 2 Investigate and develop progressive rate designs that encourage energy innovation rather than increasing energy sales. A few possible rate options include but are not limited to increased customer charges coupled with reduced energy charges, time of use rates, inclining energy block rates, and a dollar per kWh charge to fund energy innovation. 3 Investigate alternative Fuel Adjustment Clause formulas that reduce volatility and resolve timing issues.
D) G & T Collaboration	1 Partner and collaborate with EKPC to develop a comprehensive energy innovation plan that includes all aspects of energy from the generation plant to the member's home including energy efficiency and energy conservation, demand side management, and distributed generation. 2 Embrace and promote demand side management and distributed generation where it is economically and technically viable. Develop cost of service based rate and pricing strategies to minimize rate class subsidization and send proper rate signals.
E) Utilize federal and state funding	1 Identify and utilize all federal and state funding opportunities available to encourage energy innovation.

From the study and pilot project results described in the initiative above, Owen plans to develop a comprehensive energy innovation plan including rate strategies, defined energy innovation projects, and resulting energy and demand savings to be achieved in 2010 and 2011.

Two existing collaborative pilot projects with EKPC are underway including a demand side management initiative and an energy efficiency initiative entitled "Button Up program".

In regards to landfill gas generation, Owen has two existing projects tied into its distribution system. Owen is very willing to expand into additional viable distributed generation projects.

In regards to energy efficiency efforts, unfortunately, an extensive number of Owen's members cannot fully take advantage of the many programs and incentives that Owen offers. Some members simply do not have the disposable cash necessary to invest in their homes. For these programs to be fully utilized, the Commission needs to consider supporting rate designs that allow cooperatives to have a mechanism to fund these programs. There are a couple of possible solutions. One, the Commission could allow a charge to be placed on the bill similar to the demand side management ("DSM") surcharge. For example, a reasonable per meter charge would allow the cooperative to have funds available to make investments. If this method was chosen, then Owen would suggest expanding the DSM surcharge to also include energy efficiency, energy conservation, and distributed generation initiatives. In addition Owen would suggest renaming the surcharge as an "Energy Innovation Surcharge".

A second method would be for the Commission to allow a higher TIER to be recovered by the cooperative. In its recent rate case, Owen agreed to a TIER of approximately 2.0. If a TIER of 2.5 were recovered, then the additional funds could be used for the efficiency investments. In either instance, the cooperative will make the additional investments with the members to reduce usage. All parties benefit from this scenario.

Members' bills will be reduced, emissions are reduced, and the cooperative does not start a cycle of decreased sales leading to increased rates because rates are recovered through fixed charges.

Licking Valley and Taylor County views its goals to be consistent with EKPC.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 41
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 41. State whether EKPC and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's certificate statute, KRS 278.020. Explain why or why not.

Response 41.
EKPC and its members believe that when a utility brings an action before the Commission, more specifically requesting a certificate, the Commission has the opportunity to ensure that the utilities have in fact incorporated the energy efficiency programs identified in the IRP and/or programs recommended by the Commission for inclusion. Existing statutes fully enable the Commission to require utilities to implement cost effective energy efficiency programs in lieu of constructing new generation facilities.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 42
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 42. Explain why EKPC and each member have not sought approval to implement a DSM surcharge per KRS 278.285 for any DSM offering.

Response 42.

EKPC EKPC has not sought approval to implement a DSM surcharge pursuant to KRS 278.285 because it believed, and still believes, that it was more appropriate to recover DSM-related costs through base rates rather than through a DSM surcharge. While recognizing that the surcharge via KRS 278.285 is an option available for cost recovery, EKPC understood it could choose the cost recovery option it believed most appropriate. However, in the event EKPC determines that it is more appropriate to recover DSM-related costs through a surcharge, it will certainly do so. In such event, the Commission will be properly advised.

Members Blue Grass believes DSM programs should be self-supporting, so a DSM surcharge would not be needed.

Clark and Inter-County state that DSM costs to date have not justified the need for a surcharge, but note that as rates increase and members see the need to use the DSM programs that Clark and Inter-County support, the DSM costs will increase and a surcharge may be justified.

Big Sandy, Cumberland Valley, Farmers, Fleming-Mason, Nolin, Salt River, Shelby

Energy, South Kentucky have chosen to include DSM costs within the base rates as opposed to a separate DSM surcharge line item on member bills; Shelby Energy notes it is open to further review and consideration of a DSM surcharge for the future.
Grayson does not know why it has not sought approval of a DSM surcharge.
Jackson Energy states that it currently is not incurring any DSM expenses and thus is not seeking approval of a DSM surcharge.
To date the DSM pilot project Owen has entered into jointly with EKPC and its member systems has not required a DSM surcharge. As stated in its answer to question 40 Owen has an interest in expanding the DSM charge to include other aspects of Energy Innovation including energy efficiency, energy conservation, and distributed generation projects.
Licking Valley and Taylor County agree with the comments of EKPC

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 43
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 43. With reference to the discussion of energy efficiency programs on pages 3 and 4 of the Direct Testimony of Isaac S. Scott ("Scott Direct") and Exhibit ISS-1, address the following:

Request 43a. For each member cooperative separately, identify the annual kWh (or KW or MW if more appropriate) EKPC estimates is displaced or saved by each program.

Response 43a. Please see Attachment 1.

Request 43b. For each member cooperative separately, identify the number of participants in each program as of December 31, 2008.

Response 43b. Please see Attachment 2.

Program	Impact on Total Requirements (kWh)		Impact on Winter Peak (MW)		Impact on Summer Peak (MW)	
	2008	2009	2008	2009	2008	2009
Electric Thermal Storage	43,320,000	43,402,000	-24.4	-25.3	0.0	0.0
Electric Water Heater	512,000	591,000	0.1	0.1	0.0	0.1
Geothermal Heating & Cooling	-9,704,000	-9,704,000	-19.7	-19.7	-4.2	-4.2
Air Source Heat Pump	4,947,000	4,947,000	13.4	13.4	-1.5	-1.5
Tune-Up HVAC Maintenance	-4,810,000	-4,382,000	-3.7	-3.3	-1.4	-1.3
Button-Up Weatherization	-23,821,000	-23,504,000	-18.1	-17.9	-7.0	-6.9
Touchstone Energy Home & Touchstone Energy Home Tariff	-1,790,000	-2,004,000	-1.8	-2.2	-0.5	-0.5
Touchstone Energy Manufactured Home & Touchstone Energy Manufactured Home Tariff	-73,000	-129,000	0.0	-0.1	0.0	0.0
Compact Fluorescent Lighting	-25,883,000	-25,883,000	-4.1	-4.1	-2.9	-2.9
Direct Load Control – Air Conditioning & Water Heaters	n/a	-1,713,000	n/a	-3.1	n/a	-11.9

Notes:

1. The information above is for all 16 member cooperatives; information by each member cooperative is not readily available.
2. Exhibit ISS-1 failed to list the Compact Fluorescent Lighting program, which should have been included.
3. Direct Load Control was in start-up mode during 2008, consequently there is no impact data for 2008.
4. The impacts from energy audits have not been quantified.

Program	Participants Added in 2008	Cumulative Total – Participants as of December 31, 2008
Electric Thermal Storage	119	6,735
Electric Water Heater	17	9,950
Geothermal Heating & Cooling	45	4,544
Air Source Heat Pump	343	5,414
Tune-Up HVAC Maintenance	89	4,687
Button-Up Weatherization	476	9,093
Touchstone Energy Home & Touchstone Energy Home Tariff	105	571
Touchstone Energy Manufactured Home & Touchstone Energy Manufactured Home Tariff	0	13
Compact Fluorescent Lighting	37,700	263,900

Notes:

1. The information above is for all 16 member cooperatives; information by each member cooperative is not readily available.
2. Exhibit ISS-1 failed to list the Compact Fluorescent Lighting program, which should have been included.
3. The Direct Load Control program was in start-up mode during 2008, consequently there are no participants in 2008. However, the program is estimated to have 9,000 participants in 2009.
4. Information is not readily available concerning energy audits for all 16 member cooperatives; however, at least 884 audits were performed during 2008.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 44
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 44. The following questions refer to the tariffs of EKPC and its member cooperatives:

Request 44a. Identify each member with a rate for residential service which contains a customer charge and flat energy charge.

Response 44a. Please see attachment.

Request 44b. Identify each member with a rate for residential service different from that identified in part a. above. Describe each such rate.

Response 44b. Please see attachment.

Request 44c. Identify each member with a rate for commercial or small power service with a flat energy charge.

Response 44c. Please see attachment.

Request 44d. Identify each member with a rate for commercial or small power service different from that identified in part c. above. Describe each such rate.

Response 44d. Please see attachment.

Request 44f. Identify each member with a rate for large power service with a flat energy charge.

Response 44f. Please see attachment.

Request 44g. Identify each member with a rate for large power service different from that identified in part f. above. Describe each such rate.

Response 44g. Please see attachment.

Request 44h. Explain how each rate design identified above supports energy efficiency.

Response 44h.

EKPC EKPC notes that the inclusion of flat energy charges in rate designs shown in the response to parts a – g were originally developed to promote energy conservation rather than support energy efficiency. Since the early 1990s, the Commission has approved the use of flat energy charges to promote energy conservation. For example, the Commission stated in its April 23, 1993 Order in Case No. 1992-00219, at page 27, "As the flat rate should promote conservation and eliminate a perceived incentive for customers to use more electricity, thus promoting objectives of demand side management programs, Clark's rates should be restructured to a flat rate."

Members Big Sandy, Clark, and Jackson Energy state that their respective rate designs

do not promote energy efficiency; however, Clark notes its Schedule M encourages off-peak usage.

Blue Grass notes that its rates were changed in the last rate case generally were changed from declining block rates to flat rates. In addition, Blue Grass has demand based rates which support energy efficiency by sending a price signal to decrease demand. To fully support energy efficiency a cost-based rate structure should be implemented based on the cost of service study where all fixed costs should be in the customer charge and all variable costs in the energy charge.

Cumberland Valley, Farmers, Nolin, and South Kentucky state that flat rate structures can be interpreted to encourage energy efficiency in that no reduced or discounted rate per unit of usage is given for higher usage levels. Cumberland Valley, Nolin, and South Kentucky also note that rate classes with a demand component encourage efficiency by promoting improved load factor, and an improved load factor provides for the lowest possible average cost per energy kWh.

Grayson believes demand charges encourage overall efficiency while off-peak/on-peak rates encourage shifting load to off-peak usage.

Inter-County notes that flat rates were recommended and encouraged by the Attorney General in its last rate case to promote energy conservation, not energy efficiency, through the means of a price signal.

Owen believes that Time of Day (off-peak) tariffs do not promote energy efficiency to the end consumer, rather they are designed to shift load from peak demand times to lower demand times when more efficient and economical base-load generating resources are available to use for power production. Likewise, the second tariff (above 44g) is designed to encourage an improved load factor for our larger commercial and industrial members.

Owen's current retail rate design does not align the interests of the Cooperative and its members with respect to energy innovation, efficiency, conservation, and distributed generation efforts. Owen's current residential customer charge is $5.64 per member per

month which is well below the $21.92 indicated by its most recent cost of service. This $5.64 monthly charge does not even cover Owen's member related costs let alone any margins. Under its current rate design, Owen collects all of its margins and a significant portion of its member related fixed costs through an energy charge assessed on a kWh basis. Thus, any reduction in kWh sales due to energy innovation, efficiency, conservation, and distributed energy efforts results in Owen not recovering fixed cost and margin, which financially harms Owen. It is not reasonable to expect Owen to aggressively pursue energy innovation such as conservation, energy efficiency, and distributed generation programs when every reduction in sales has a negative financial impact on Owen.

Owen notes that this link between sales and fixed cost and margin recovery is referred to in the electric utility industry as the "throughput incentive". Between rate cases, utilities have a financial incentive to increase retail sales of electricity relative to historic levels that were used for calculating their base rates. This incentive exists because there is usually significant incremental fixed cost and margin recovery on incremental sales. For sales above the historic levels that were used for calculating its base rates, all revenue above the variable cost of producing the incremental kWh would be incremental revenue for the utility. This incentive for utilities to maximize the "throughput" of electricity across their wires in an attempt to increase fixed cost and margin recovery is referred to as the "throughput incentive". Similarly, utility profits decline when sales are below the historic levels that were used for calculating their base rates, which could result from energy innovation, efficiency, conservation, and demand response efforts. Every kWh lost as a result of energy innovation programs reduces margins and diminishes financial stability, regardless how cheap the energy innovation, efficiency, conservation, or distributed generation efforts. The effect of this throughput disincentive is greater for distribution-only utilities, such as rural electric cooperatives, because the revenue impact of electricity sales reduction is disproportionately larger for utilities without generation resources. It is critical to address this throughput incentive if regulators want utilities to

become actively involved in energy innovation such as efficiency, conservation, and distributed generation programs.

Owen believes the easiest way for a rural electric cooperative to mitigate the throughput incentive is to allow it to increase its customer charge to a level that is justified based on cost of service. This would assure a revenue stream that flows into the cooperative regularly and that is not linked to the level of sales. One result of such a change is that the energy charge would be reduced as fixed cost and margin recovery was recovered from the customer charge. The straight fixed variable rate design that is common in the natural gas industry takes this to the maximum level with all of a utility's fixed cost recovered through a monthly customer charge. This completely breaks the link between the recovery of fixed cost and margins and the level of kWh sales, as there is no fixed cost or margin recovery in the energy charge assessed on a kWh basis.

Salt River states that it has contracts that allow for increased cost per kWh if the member exceeds contract demand. It also has a minimum load factor that encourages efficiency and has interruptible riders that helps defer future power plants.

Shelby Energy notes that for its Large Power Rate 2 for Commercial and Industrial the rates encourage peak demand conservation by its price relationship between KW demand and kWh energy, with the energy price blocks are tied to the peak demand. Reducing peak demand results in a lower kWh energy cost for monthly energy consumption. This is an effective pricing tool for use in commercial and industrial energy management audits to promote demand conservation.

Taylor County notes that as each kWh is priced the same, the member has an incentive for efficient usage by being able to lower the cost of the bill.

Licking Valley has not developed a conclusion as to whether its rates support energy efficiency.

Member Cooperative	Residential Service		Commercial or Small Power Service		Large Power Service (includes Industrial)	
	44a – Customer Charge & Flat Energy Charge	44b – Rate Different from 44a	44c – Rate with Flat Energy Charge	44d – Rate Different from 44c	44f – Rate with Flat Energy Charge	44g – Rate Different from 44f
Big Sandy RECC	Schedule A-1	None	Schedule A-2	None	Schedules LP & LPR	None
Blue Grass Energy	Schedule GS-1	None	Schedule SC-1	None	Schedules LP-1, LP-2, B-1 & B-2	None
Clark Energy	Schedule R	Schedule D TOU: No Customer Charge w/ Flat Energy Charge	Schedules E, A & B	None	Schedules L, P & M	None
Cumberland Valley Electric	Schedule I	Schedule I Marketing Rate: No Customer Charge w/ Flat Energy Charge	Schedule II	None	Schedules III, IV, IV-A & V	None
Farmers RECC	None	Schedule R: Minimum Bill equal to first 50 kWh, all additional kWh at lower Energy Charge; Schedule RM: Flat Energy Charge Only	None	Schedule C-1: Minimum Bill equal to first 50 kWh, all additional kWh at lower Energy Charge; Schedule CM: Flat Energy Charge Only	Schedules C-2, C-2a, D & E	None

Member Cooperative	Residential Service		Commercial or Small Power Service		Large Power Service (includes Industrial)	
	44a – Customer Charge & Flat Energy Charge	44b – Rate Different from 44a	44c – Rate with Flat Energy Charge	44d – Rate Different from 44c	44f – Rate with Flat Energy Charge	44g – Rate Different from 44f
Grayson RECC	Schedule 1 & Off-Peak Marketing Rate	None	Schedule 2 & Off-Peak Marketing Rate	None	Schedules 4 & 7 (All Electric School)	None
Inter-County Energy	Schedule 1	Schedule 1-A – Marketing Rate: No Customer Charge w/ Flat Energy Charge	Schedule 2	None	Schedules 4, 5 (All Electric School), B-1, B-2, B-3, C-1, C-2 & C-3	None
Jackson Energy	Schedule 10	Schedule 11: No Customer Charge w/ Flat Energy Charge	Schedules 20 & 50	Schedule 22: Flat Energy Charge Only	Schedules 40, 46, 47 & 52 (All Electric School)	None
Licking Valley RECC	Schedule A	None	Schedule B	None	Schedules LP & LPR	None
Nolin RECC	Schedule 1	None	Schedules 2 & 2a	None	Schedules 3 & 10	Schedule 4: Demand Charge w/ Declining Block Energy Charge

Member Cooperative	Residential Service		Commercial or Small Power Service		Large Power Service (includes Industrial)	
	44a – Customer Charge & Flat Energy Charge	44b – Rate Different from 44a	44c – Rate with Flat Energy Charge	44d – Rate Different from 44c	44f – Rate with Flat Energy Charge	44g – Rate Different from 44f
Owen Electric Cooperative	Schedule I, I-TOD & 1-B TOD	None	Schedule I Small Commercial & 1-C TOD	None	Schedules II, XIV LPB & 2-A TOD	Declining Block Energy Charge based on kWh equal to 425 per kW of billing demand: Schedules VIII, IX LPC2, X LPC1-A, XI LPB1 & XII LPB2
Salt River Electric	Schedules A-5 & A-5T	Schedule R-1: No Customer Charge w/ Flat Energy Charge	Schedule B-2	None	Schedules LLP-1, LLP-2, LLP-3, LLP-4-B1, LPR-2, LPR-3 & LPR-1-B2	None
Shelby Energy Cooperative, Inc.	Schedule 10 (Optional Rate) & ETS – Marketing Rate: Customer Charge w/ Flat Energy Charge	Schedule 1: Customer Charge w/ Declining Block Energy Charges;	None	Schedule 1: Demand Charge over 20 kW, Customer Charge, Declining Block Energy Charges	Schedules B-1, B-2, B-3, C-1, C-2 & C-3	Schedule 2: Demand Charge with Declining Block Energy Charges

Member Cooperative	Residential Service		Commercial or Small Power Service		Large Power Service (includes Industrial)	
	44a – Customer Charge & Flat Energy Charge	44b – Rate Different from 44a	44c – Rate with Flat Energy Charge	44d – Rate Different from 44c	44f – Rate with Flat Energy Charge	44g – Rate Different from 44f
South Kentucky RECC	Schedule A	Schedule A-ETS: No Customer Charge w/ Flat Energy Charge	Schedule B	Schedule B-ETS: Flat Energy Charge Only	Schedules LP, LP-1, LP-3, OPS & AES	Schedule LP-2: Metering, Substation, and Demand Charges w/ Declining Block Energy Charge
Taylor County RECC	Schedule A	None	Schedule GP1	None	Schedules GP2, B-1, B-2, B-3, C-1, C-2 & C-3	None

Notes:

1. Rates for Fleming-Mason Energy are addressed in separate data responses.
2. TOD means Time of Day; TOU means Time of Use.
3. Farmers RECC has a base rate application pending before the Commission where it has proposed that Schedule R and Schedule C-1 would have a Customer Charge and a Flat Energy Charge for all kWh sold.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 45
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 45. State whether EKPC and each member support inclining block rates. Explain your answer in detail.

Response 45.

EKPC At the present time, EKPC does not support the use of inclining block rates. As our latest cost of service study showed, a large portion of our fixed costs are being recovered through the energy component of rates. If inclining block rates were established for EKPC while a large portion of our fixed costs continue to be recovered through the energy component of rates, it would be difficult for EKPC to promote energy efficiency without harming ourselves financially. However, if EKPC's rates reflected a cost-based structure reflecting the results of our cost of service study, establishing inclining block rates for the energy component of our rates may not pose as great a financial risk to EKPC.

Members Big Sandy has no preference concerning inclining block rates.

Blue Grass, Salt River, and Shelby Energy agree with EKPC and do not support inclining block rates under their current rate structure because a significant portion of the fixed costs are in the energy component instead of the customer charge. Blue Grass states it would consider supporting inclining block rates only if all fixed costs were included in the customer charge.

Clark, Cumberland Valley, Farmers, Fleming-Mason, Inter-County, Nolin, South Kentucky, and Taylor County do not support inclining block rates for residential customers due to their negative impact on those who are least able to pay their utility bills or are dependent on electricity for heating and cooling. A large percentage of the low income customers are actually high consumption users due to the inherent poor condition of the homes they live in. The residences for low income customers include a variety of poorly constructed or insulated structures, older residences, and a high number of manufactured homes. In many cases the customer does not own the structure they reside in, therefore causing an undue financial hardship from inclining block rates. Clark does not believe inclining block rates induce conservation. Taylor County believes that the current flat rates provide incentives to lower usage by using efficient heating and cooling units. Cumberland Valley, Nolin, and South Kentucky also note that the use of inclining block rates as a rate option does have merit when one considers that the marginal cost of energy is greater than the average cost of energy. This type of rate design should not be dismissed for commercial or industrial customers as it may be a way of imparting a better price signal.

Grayson supports inclining block rates that would be beneficial for low usage residential customers, whose usage would generally fall in off-peak times.

Owen is very supportive of inclining block rates when included as a part of a comprehensive energy innovation strategy. As mentioned by other EKPC systems, the major barrier to inclining rates is the fact that Owen's customer/member charge does not adequately cover its fixed costs. A second barrier identified by fellow EKPC members is the fact that low income members will be adversely affected by inclining rates. If inclining rates are coupled with an energy innovation surcharge supplemented with stimulus funds to "button up" low income homes and replace inefficient HVAC systems then inclining block rates become a viable strategy. The remaining barrier is mobile and manufactured homes that offer few if any economical ways to improve their efficiency. A potential solution to this long standing issue is to introduce and pass legislation

establishing minimum building standards on the mobile and manufactured home construction industry. The bottom line is that a comprehensive strategy is necessary to effectively implement inclining block rates.

Jackson Energy does not support inclining block rates because they would not recover its costs, especially with the current rates for the customer charges and demand charges.

Licking Valley has not developed a position concerning the use of inclining block rates.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 46
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 46. With reference to the discussion about the recovery of more fixed costs through the demand charge component rather than the energy charges in Scott Direct, pages 4 and 5, address the following:

Request 46a. When did EKPC and each member perform their most recent cost of service study?

Response 46a. Please see Attachment 1.

Request 46b. For EKPC and each member individually, describe the relationship of the current rates and charges to the level of rates and charges indicated by the results of their most recent cost of service study.

Response 46b. Please see Attachment 1.

Request 46c. For the most recent general rate case filed by each of EKPC's member individually, identify the amount and percent of increase requested in the residential customer charge.

Response 46c. Please see Attachment 2.

Request 46d. For each case identified in part c. above which was not settled, provide the amount and percent of increase in the residential customer charge that was granted.

Response 46d. Please see Attachment 2.

Cooperative	46a – Most Recent Cost of Service Study	46b – Relationship of Current Rates and Charges with Level of Rates and Charges Indicated by the Most Recent Cost of Service Study
East Kentucky	2008	EKPC's most recent cost of service study showed that demand charges, substation charges, and meter-point charges needed to be increased while energy charges needed to be decreased.
Big Sandy RECC	2008	The current cost of service study shows that more fixed costs need to be recovered in the customer charge.
Blue Grass Energy	2008	Compared to the cost of service study, current rates reflect an energy charge that is too high and a customer charge that is too low.
Clark Energy	Internal studies only; never filed with Commission	Current rates and charges do not reflect the results of the cost of service study. Actual fixed costs are higher than the customer charges that are being charged to the consumer, leaving the need for the costs to be recovered by the energy charges. There is also disparity between classes of consumers, the large power consumers are subsiding the residential consumers. Lighting charges are not covering the actual cost of providing the lights as the cost of service study shows.
Cumberland Valley Electric	2005	Current rates are somewhat in line with the current costs and the current needs of the Cooperative subject to any changes that may be needed since the last cost of service study; no review or analysis of rate classes and rate design since last cost of service study. Adjustments could be needed in customer charges for residential and small commercial classes because they do not recover enough of the customer-related costs; large power classes need to be reviewed to see if rate design is appropriate for the cost drivers.
Farmers RECC	2008	Current rates are significantly out of line with current costs and the current needs of the Cooperative. In pending rate case, proposing to establish customer charges for residential and small commercial rate classes. Proposals are based on identifying the appropriate costs for each rate class and properly assigned; customer charges are designed to recover customer-related costs with remaining costs recovered through the energy rate.
Grayson RECC	2008	An inordinate amount of revenue was being collected through the energy charges, rather than through customer or demand charges.
Inter-County Energy	2006	While current rates recover the Cooperative's revenue requirements, the monthly customer charge does not recover fixed costs. That recovery is included in both the customer charge and energy charge.
Jackson Energy	2007	Recent cost of service study showed the need for higher customer charges than were in the tariffs, especially for residential service. The cost of service study supported a residential customer charge of $20.62; Cooperative proposed a customer charge of $9.50, which was approved. This resulted in the energy charge being higher than needed in order to recover the revenue requirement.
Licking Valley RECC	1998	The cost of service study is no longer available.

Cooperative	46a – Most Recent Cost of Service Study	46b – Relationship of Current Rates and Charges with Level of Rates and Charges Indicated by the Most Recent Cost of Service Study
Nolin RECC	2006	Current rates are somewhat in line with the current costs and the current needs of the Cooperative subject to any changes that may be needed since the last cost of service study; no review or analysis of rate classes and rate design since last cost of service study. Adjustments could be needed in customer charges for residential and small commercial classes because they do not recover enough of the customer-related costs; large power classes need to be reviewed to see if rate design is appropriate for the cost drivers.
Owen Electric Cooperative	2008	Recent cost of service study showed the need for higher customer charges than were in the tariffs, especially for residential service. The cost of service study supported a residential customer charge of $21.92; Cooperative proposed a customer charge of $11.20, which is pending approval. This will still result in the energy charge being higher than needed in order to recover the revenue requirement.
Salt River Electric	1992	The last cost of service study was performed in conjunction with the 1992 rate case; since that time, the customer charge has increased due to changes in EKPC's demand and substation charges. In the current pass-through case, EKPC's increase is spread proportionally, thus Salt River's demand and energy charges are out of sync.
Shelby Energy Cooperative, Inc.	1983	Cooperative's last rate case was in 1983, and the information related to the cost of service study is no longer available.
South Kentucky RECC	2005	Current rates are somewhat in line with the current costs and the current needs of the Cooperative subject to any changes that may be needed since the last cost of service study; no review or analysis of rate classes and rate design since last cost of service study. Adjustments could be needed in customer charges for residential and small commercial classes because they do not recover enough of the customer-related costs; large power classes need to be reviewed to see if rate design is appropriate for the cost drivers.
Taylor County RECC	1997	The last cost of service study was performed in conjunction with the 1997 rate case; since that time, the customer charge has increased due to the flow through of wholesale power increases.

Notes:

1. Information for Fleming-Mason Energy is provided in separate data responses.
2. Clark Energy did not file a Cost of Service Study with the Commission in conjunction with its 1992 rate case, the last general rate case.
3. Big Sandy RECC, Farmers RECC, Grayson RECC, and Owen Electric all currently have rate cases pending before the Commission; Licking Valley RECC has submitted a notice of intent to file a rate case but has not filed its application as of the date of the response to this data request.

Cooperative	Rate Case Reference	46c – Proposed Customer Charge		46d – Granted Customer Charge	
		$ Charge	% Increase	$ Charge	% Increase
Big Sandy RECC	2008-00401	$15.00	108.91%	Pending before the Commission	
Blue Grass Energy	2008-00011	$12.00	120.59% 117.00% 31.87%	Case was settled	
Clark Energy	1992-00219	$7.25	48.26%	$5.35	9.41%
Cumberland Valley Electric	2005-00187	$5.00	0.0%	$5.00	0.0%
Farmers RECC	2008-00030	$9.00	20.32%	Pending before the Commission	
Grayson RECC	2008-00254	$15.00	83.82%	Pending before the Commission	
Inter-County Energy	2006-00415	$8.00	44.14%	Case was settled	
Jackson Energy	2007-00333	$9.50	12.56%	Case was settled	
Licking Valley RECC	1998-00321	$8.45	60.95%	$7.00	33.33%
Nolin RECC	2006-00466	$8.13	58.48%	Case was settled	
Owen Electric Cooperative	2008-00154	$11.20	98.58%	Pending before the Commission	
Salt River Electric	1992-00560	$7.74	*	$7.70	*
Shelby Energy Cooperative, Inc.	1983	*	*	*	*
South Kentucky RECC	2005-00450	$8.00	42.80%	Case was settled	
Taylor County RECC	1997-00124	$6.92	28.39%	Case was settled	

See Notes on next page.

Notes:

1. Information for Fleming-Mason Energy is provided in separate data responses.
2. In its rate case, Blue Grass Energy addressed rate parity issues between the three cooperatives which consolidated into Blue Grass Energy. The percentage increase for the former Blue Grass RECC was 120.59%; the percentage increase for the former Fox Creek RECC was 117.00%; and the percentage increase for the former Harrison County RECC was 31.87%.
3. Cumberland Valley Electric did not seek an increase in its customer charge in its last rate case because of the opposition of the Office of the Attorney General to customer charge increases.
4. Farmers RECC is proposing to move from a minimum bill based on the first 50 kWh of usage to a customer charge; percentage change reflects the difference between the current minimum bill and the proposed customer charge.
5. Licking Valley RECC has submitted a notice of intent to file a rate case but has not filed its application as of the date of the response to this data request.
6. The percentage change in customer charges from Salt River Electric's last rate case are not available.
7. Information from Shelby Energy Cooperative, Inc.'s last rate case is no longer available; Commission's final Order could not be located.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 47
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 47. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

Request 47a. State whether or not EKPC and each member support decoupling. Explain your answer in detail.

Response 47a.

EKPC EKPC does not support decoupling. Decoupling has been identified as one of three major approaches for dealing with the throughput incentive issue. The other approaches are lost revenue recovery adjustments or mechanisms, as provided in KRS 278.285, and straight fixed variable rate design, which is similar to EKPC's proposed cost-based rate design structure reflecting cost of service study results. Of the three major approaches for dealing with the throughput incentive, decoupling represents a break with traditional regulation. The limited experience with decoupling has shown that the application of the mechanism can produce unintended consequences. EKPC believes that decoupling unnecessarily complicates the recovery of fixed and variable costs in order to eliminate the throughput incentive when there are other more established and workable approaches available.

Decoupling is a generic term for a rate adjustment mechanism that separates a utility's fixed cost recovery from the amount of electricity it sells. While generally promoted as a simple calculation, experience has shown that effective decoupling programs must include a periodic automatic true-up mechanism to address the over- or under-recovery of target revenues and adjustments to deal with the impacts of weather and changes in the economy. Decoupling has been around since the early 1980s, however, it has seen limited use and continues to be discussed in theoretical terms. Although dismissed by decoupling supporters, concerns have been raised that decoupling could result in more frequent changes in rates; create higher bills for customers who do not participate in energy efficiency programs; impact low-income users who would be least able to respond to changes in bills; and could create unfair transfers between customer classes, for example, commercial and industrial customers who would be ineligible to participate in residential efficiency programs might see higher rates resulting from those programs. The mechanism does not address the recovery of utility variable costs and decoupling literature tends to indicate this cost recovery would be handled through fuel and other adjustment clauses. The reported experience with decoupling mechanisms have all involved investor-owned utilities rather than not-for-profit, member-owned cooperatives.

Members Big Sandy and Licking Valley have no opinion on decoupling.

Blue Grass does not favor decoupling because it appears very complicated with annual true-ups and only a few states have tried this method. Blue Grass prefers rates based on a cost of service study with all fixed costs in the customer charge and variable costs in the energy charge separated by rate class so each class pays their share of the cost as much as possible.

Clark prefers the straight fixed variable rate design approach to address the throughput incentive issue rather than decoupling. Under this approach, fixed costs are collected through a facilities charge and variable costs are collected through a commodity charge. Clark acknowledges that this change in rate structure would have to be phased-in to allow members to adjust to the new structure.

Inter-County does not favor decoupling; but instead favors an approach where fixed costs are recovered through customer charges and variable costs are recovered through the energy charge.

Owen is very supportive of increasing its customer/member charge to cover its fixed costs while at the same time adjusting its energy charge to offset the increase in the customer/member charge. Owen believes that this revenue neutral approach will allow it to aggressively pursue energy innovation efforts without harming its financial stability. Owen agrees that this rate transition should happen over several years. In a revenue neutral manner, Owen is also very supportive of creating a second energy block that is inclining as it raises its customer/member charge and simultaneously lowers its first energy block. As stated earlier, Owen believes that any rate revision must be pursued as one step in a comprehensive energy innovation strategy that must be implemented together to be effective.

Salt River agrees with EKPC and does not support decoupling.

Shelby Energy does not support decoupling at this time. Shelby Energy notes a concern that decoupling may be focused only on the goal of energy efficiency, while there are other issues to be considered that affect its members like economic development. Decoupling appears to be a complicated system of estimations and normalizations of sales and revenues figures resulting in greater risks for the utility to continue as a viable source of distributing energy.

Taylor County does not support decoupling.

Cumberland Valley, Farmers, Nolin, and South Kentucky believe decoupling encompasses several positive elements and the type of decoupling mechanism developed would impact the support it may have. In general, distribution cooperatives should look at decoupling, but how this mechanism would be applied to a distribution cooperative is not completely understood at the present time. While different rate classes may contain different elements, any approach that results in fully cost based rates assigning fixed costs to customer charges may have some merit.

Grayson supports decoupling if it eliminates the effects of weather and financial harm to the cooperative from energy efficiency programs, as this would appear to provide cost stability and increase transparency.
Jackson Energy favors decoupling, but believes it should decouple its rates only if EKPC's rates are decoupled.

Request 47b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that EKPC and each member support.

Response 47b.
EKPC As EKPC does not support decoupling, this question is not applicable.
Members Big Sandy and Licking Valley have no opinion on decoupling.
Blue Grass, Inter-County, Shelby Energy, and Taylor County do not support any form of decoupling.
Clark favors the straight fixed variable rate design rather than decoupling.
Owen Electric is very willing to work with EKPC and its member systems to investigate and develop a common understanding of any rate structure that will eliminate the throughput incentive and effectively allow Owen to aggressively pursue energy innovation without causing financial harm to Owen, EKPC, or any member system.
Salt River agrees with EKPC and does not support decoupling.
Cumberland Valley, Farmers, Nolin, and South Kentucky believe a decoupling mechanism may be reasonable if fixed cost recovery is removed from energy sales as much as possible, customer-related costs are recovered solely through a customer charge, and an adjustment mechanism is available to adjust sales to target levels.
Grayson supports decoupling, but has not determined the specific methodology that should be adopted.
Jackson Energy supports decoupling where for commercial and industrial customers

fixed costs are recovered through the customer charge, demand costs are recovered through the demand charge, and variable costs are recovered through the kWh charge. Jackson Energy supports decoupling for residential customers where fixed costs are recovered through the customer charge and variable costs are recovered through the kWh charge. Jackson Energy believes this approach would allow it to remain financially sound even when promoting energy efficiency programs.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 48
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 48. Explain whether or not EKPC and each member believe the Commission should implement decoupling to support energy efficiency.

Response 48.

EKPC EKPC does not believe the Commission should implement decoupling to support energy efficiency. As noted in the response to Request 47, EKPC does not support decoupling. While it is suggested that decoupling could remove disincentives for utilities to promote energy efficiency, decoupling is not designed to create an incentive for energy efficiency. Further, it is not clear whether decoupling will result in increased energy efficiency spending. As noted in the National Association of Regulatory Utility Commissioners' (NARUC) "Decoupling for Electric & Gas Utilities: Frequently Asked Questions – September 2007," no major studies have been undertaken linking decoupling directly to increased efficiency activities at utilities. In Washington, energy efficiency spending was observed to increase when decoupling was in place and decrease when decoupling was rescinded. In New York, regulated utility energy efficiency spending increased regardless of whether the utilities used decoupling or not. The NARUC document can be found at http://www.naruc.org/Publications/NARUCDecouplingFAQ9_07.pdf.

Members Big Sandy and Licking Valley have no opinion.

Blue Grass and Shelby Energy believe decoupling should not be implemented to support energy efficiency. Blue Grass notes it already promotes energy efficiency programs, and to effectively promote further, rate structures must be changed concerning fixed and variable costs.

Clark supports the straight fixed variable rate design to promote energy efficiency rather than decoupling.

Owen is very willing to work with the Commission, EKPC, and its member systems to investigate and develop a common understanding of any rate structure that will eliminate the throughput incentive and effectively allow Owen to aggressively pursue energy innovation without causing financial harm to Owen, EKPC, or any member system.

Inter-County is not aware of any evidence that decoupling does or does not support energy efficiency.

Salt River agrees with EKPC and does not believe the Commission should implement decoupling to support energy efficiency.

Taylor County does not believe decoupling would support energy efficiency.

Cumberland Valley, Farmers, Nolin, and South Kentucky believe that decoupling should be looked at and determine the applicable mechanisms that may be useful to distribution cooperatives for the support of energy efficiency.

Grayson believes the Commission should support efforts where decoupling would support energy efficiency.

Jackson Energy very definitely feels that the Commission should implement decoupling to support energy efficiency.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 49
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 49. Refer to page 4 of Scott Direct. Explain whether the proposed settlement in Case No. 2008-00409[5] changes EKPC's and each member's plans to make significant rate design changes in its Phase II rate proposal.

Response 49.
EKPC EKPC agreed in the proposed settlement agreement in Case No. 2008-00409 that its Phase II rate proposal would not be implemented. Consequently, there will be no Phase II rate change for EKPC becoming effective in 2010. The member cooperatives will not have to consider rate design changes specifically related to EKPC's proposed Phase II rate changes.
Members The member cooperatives will be continuing to look at their own rate designs to address their own needs. Further, Owen believes that the proposed settlement in Case No. 2008-00409 was necessary for financial stability, however the rate structure needs to move to a cost of service basis over a reasonable period of time in order to send accurate cost of service price signals to members and to allow effective distribution rates to be developed that reflect true power supply costs. Owen also believes that the process of allocating rates through the proportional method instead of through a cost of service method creates inequities in rate classes and needs to be abandoned.

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[5] Case No. 2008-00409, General Adjustment of Rates of East Kentucky Power Cooperative, Inc. (Ky. PSC, Oct. 31, 2008)

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 50
RESPONSIBLE PERSON: **Isaac S. Scott**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 50. Refer to page 13 of the Direct Testimony of Robert J. Camfield ("Camfield Direct").

Request 50a. Provide the number of customers served under EKPC's and each member's cogeneration tariffs.

Response 50a.
EKPC EKPC has one participant under its cogeneration tariff.
Members Big Sandy, Blue Grass, Clark, Cumberland Valley, Farmers, Fleming-Mason, Grayson, Inter-County, Jackson Energy, Licking Valley, Nolin, Owen, Salt River, Shelby Energy, and South Kentucky have no cogeneration customers.
The EKPC cogeneration participant is a customer of Taylor County.

Request 50b. Do EKPC and each member believe the potential exists within its service territory for additional waste energy projects? If so, describe the potential energy available through, and the economic feasibility of, those projects.

Response 50b.
EKPC EKPC believes the potential may exist within the member systems' service

territory for additional waste energy projects. However, at this time, EKPC does not have any data or analysis concerning a specific project.

Members Big Sandy, Clark, Fleming-Mason, and Licking Valley do not have sufficient information to form an opinion on whether potential exists for additional waste energy projects.

Blue Grass and Shelby Energy believe there may be potential projects, but at this time do not have any detailed studies to describe the potential or economic feasibility of such projects.

Farmers is not currently aware of any waste energy projects, but believes the potential for an additional landfill gas project, as well as wood waste projects might exist. Development of these would be contingent on solving financial challenges, and in some cases, overcoming local governance issues.

Owen has identified one potential landfill gas generation site and is in the early stages of discussion with the potential target.

Cumberland Valley, Grayson, Inter-County, Jackson Energy, Salt River, South Kentucky, and Taylor County are not aware of additional or potential waste energy projects in their service territories.

Nolin is in the early states of evaluating a joint project, but specific data is not available at this time.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 51
RESPONSIBLE PERSON: **Paul A. Dolloff**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 51. Describe any AMI deployed by EKPC or any of its members.

Response 51.
EKPC There are a number of EKPC customers whose energy consumption is being read by the MV-90 system. EKPC uses MV-90 to read energy usage, demand, and peak data for large industrial customers. Most customer meters are read three times a month; however, some are read as often as daily. EKPC also has the MV-90 Web system in place for customers to access their own usage data.
There are a few customers that are not on the MV-90 Web system but do have access to their energy consumption data on a near real-time basis. These customers have installed specialized electronic equipment that interfaces with the metering system, telemeters the data within the plant, and displays the data within their control rooms.
To clarify, MV-90 is not a type of revenue meter. Instead, MV-90 is a software package that performs a number of meter reading and bill preparation functions. Provided by the Itron company, the MV-90 system performs interval data collection, management, and analysis from commercial and industrial (C&I) metering devices. It can be used as a data collection engine that interfaces to existing data management and analysis tools, or as an end-to-end interval data management solution. The MV-90 system is a multi-vendor meter data management system for collecting and managing data from the complex

metering devices typically used for large commercial and industrial customers. The MV-90 system's data management and analysis tools ensure data integrity and process consistency.

EKPC also maintains a number of sophisticated load research meters. These meters have been strategically installed on particular customers who represent an entire class of customer. With this data, EKPC develops usage profiles for each type of customer class. Customer class profile data has any number of uses ranging from marketing to load grow projections.

Members Several of the Member Systems (12 of 16) have installed sophisticated automatic metering reading systems. Three manufacturers of these systems have been installed, each with their own features and technology. These three manufacturers are: Hunt Technologies, Distribution Control Systems (TWACS system), and Cooper Power Systems (Cannon system).

The Table below shows which AMR system each of the East Kentucky Member Systems are using.

EKPC Member System	AMR Technology
Big Sandy RECC	Distribution Control Systems (TWACS)
Blue Grass Energy	Hunt Technologies (TS2)
Clark Energy	Hunt Technologies (TS1)
Cumberland Valley Electric	Hunt Technologies (TS2)
Farmers RECC	Distribution Control Systems (TWACS)
Fleming-Mason Energy	no AMR
Grayson RECC	Hunt Technologies (TS1)
Inter-County Energy	no AMR
Jackson Energy	Distribution Control Systems (TWACS)
Licking Valley RECC	Hunt Technologies (TS2)
Nolin RECC	Hunt Technologies (TS2)
Owen Electric	Cooper Power Systems (Cannon)
Salt River Electric	Hunt Technologies (TS2)
Shelby Energy	no AMR
South Kentucky	no AMR
Taylor County	Distribution Control Systems (TWACS)

It should be noted that the EKPC Simple Saver DSM program (direct load control) will use the Member Systems' AMR system to communicate to those customers where paging signals are not available.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 52
RESPONSIBLE PERSON: **Paul A. Dolloff**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 52. Describe any transmission and distribution automation equipment deployed by EKPC or any of its members.

Response 52.

EKPC EKPC and the Member Systems have a limited number of automation equipment installed on the transmission and distribution systems. Each system is briefly described below.

System Protection. EKPC installs microprocessor based relays for new construction and upgrade of existing substations. When necessary, these relays can be programmed to perform additional functions, apart from issuing trip signals during fault conditions. One such additional function is transfer trip. This scheme allows a relay to provide its trip signal to remote locations to ensure that faults are cleared from the system. Another is fault location. Many microprocessor based relays have embedded fault location routines, which can be useful in pinpointing fault locations when deploying field crew to inspector/repair.

Data Recorders. EKPC currently uses two types of data recorders: Fault/event recorders and a substation monitoring system.

A number of fault recorders are installed on the EKPC system within substations of 100kV or greater. These fault recorders are connected to a number of microprocessor

based relays within a single substation. When any of the relays recognizes a faulted condition, the fault recorder reads and stores the output from all of the relays to which it is connected. Similarly, the event recorders used by EKPC are connected to a number of substation devices, where all of the devices not necessarily relays. Whenever one of these devices is triggered due to a disturbance, the event recorder reads and stores the output from all of the devices to which it is connected.

EKPC has installed the I-Grid system within a large number of distribution substations. I-Grid is an innovative, web-based distributed power quality and reliability monitoring and notification system. I-Grid uses low cost I-Sense monitors to capture and transmit power data through the internet to a central server for display on the I-Grid website, as well as send event notification to EKPC.

OCAS. EKPC has installed the Obstacle Collision Avoidance System (OCAS) on the transmission structures supporting the 345kV transmission line crossing the Ohio River in Maysville, KY. The OCAS system is capable of delivering both visual and audible warnings to flight crews encroaching upon protected airspace surrounding transmission structures and line crossings, which warrant marking.

The OCAS system is an innovative new approach coupling active recognition and multi-tier warning capability dedicated to the protection of ground based flight obstacles such as electric transmission lines, telecommunications towers, and windmills. Utilizing ground based radar surveillance as part of this active recognition system allows the OCAS solution to limit obstruction light run times to actual encroachment threats thus eliminating the constant barrage of light pollution associated with legacy obstruction marking applications, which traditionally run their lighting systems on a continuous basis to maintain compliance with aviation administration safety recommendations.

Motor Operated Switches. EKPC has installed a number of motor operated air break (MOAB) switches throughout the entire transmission system. Each MOAB has been full integrated into the Energy Management System, which allows the system operators the ability to open and close these switches remotely. MOABs allow system

operators to minimize outages and greatly speed restoration without the need to dispatch service personnel to manually operate switches.

Dynamic Thermal Circuit Ratings. To help EKPC deal with transmission constraints, the use of the dynamic thermal circuit rating (DTCR) technology has been deployed to increase the rating of various types of equipment based on real-time loading and weather conditions. Being able to increase the available capacity limits allows EKPC to push existing equipment harder without fear of short or long term damage or increased maintenance.

Currently, EKPC has applied DTCR to three, high-voltage power transformers and eight, high voltage transmission lines. DTCR results are displayed in near real time in the EKPC 24-hour dispatch center. A sophisticated graphical user interface has been developed in-house to aid the system operators.

The additional capacity provided by the EKPC DTCR installation has proven to save operating costs by delaying or avoiding re-dispatch, dispatching of combustion turbines, and curtailing energy trades.

Members Big Sandy, Clark, Farmers, Fleming-Mason, Grayson, Inter-County, Licking Valley and Taylor County have none.

Blue Grass, Cumberland Valley, Jackson Energy, Nolin, Salt River, Shelby Energy, and South Kentucky have installed a Supervisory Control and Data Acquisition (SCADA) system.

Owen has a SCADA system installed and operational and is continually investigating expanding its smart grid opportunities.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 53
RESPONSIBLE PERSON: **Paul A. Dolloff**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 53. Describe any digital communications or any other smart grid technology deployed by EKPC or any of its members.

Response 53.

EKPC EKPC has hybrid type of digital communications systems, which combines fiber optics with digital microwave system. This system provides a communication platform on which a large number of voice and data applications depend.

The EKPC digital communications infrastructure supports the following data functions:

- EKPC SCADA system
- EKPC distribution SCADA
- Some of the Member Systems AMR systems
- Some of the connections for the Simple Saver DSM program
- System protection relaying
- Inter-Control Center Communications and other data links with a large number of foreign utilities
- Energy Control/EKPC HQ and
    - The EKPC Reliability Coordinator (Tennessee Valley Authority - TVA)
    - A large number of foreign utilities within SERC
    - EKPC Service Centers

The EKPC digital communications infrastructure supports the following voice functions:

- Voice communications between two-way radio system
  - Truck-to-truck
  - Truck-to-Energy Control
  - Energy Control to Member System trucks
- Direct phone lines between Energy Control/EKPC HQ and
  - EKPC power plants
  - Member Systems
  - The EKPC Reliability Coordinator (TVA)
  - A large number of foreign utilities within SERC
  - EKPC substations
  - EKPC Service Centers

Members All the member systems are participating in the direct load control program (Simple Saver DSM program). Deployment is on-going.

Blue Grass has deployed digital radios to get an IP network to the substations for connection to the AMR system and SCADA.

Farmers is in the process of installing a new digital radio system to support voice and data transmission for its field operations. It has also fully deployed an AMI system.

Owen has deployed digital radios to get an IP network to the substations for connection to the AMR system and SCADA; also digital fiber communications within the substation between the SCADA and IED's like reclosers, regulators and metering.

Cumberland Valley, Fleming-Mason, Grayson, Inter-County, Jackson Energy, Licking Valley, Nolin, Shelby Energy, South Kentucky, and Taylor County have not deployed any digital communications or other smart grid technology.

Salt River has only deployed SCADA and AMR.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 54
RESPONSIBLE PERSON: **Paul A. Dolloff**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 54. Describe EKPC's and each member's plans with regard to the installation of additional smart grid technology and components. Include budgets and timelines if appropriate. If EKPC or its members have no such plans, explain why.

Response 54.
EKPC Fault Locators. Started in 2001, the in-house research fault locator project was highly successful and led to system-wide deployment throughout the EKPC transmission System. Working with a fault locator manufacturer and a telecommunications vendor, EKPC was able to develop a new product for bringing fault location data to the EMS. As a result of this project, the fault locator manufacturer has recently developed a SCADA based system founded on the EKPC pilot project.
Typically, MOABs are operated on a best guess principle prior to reclosing breakers at switching substations. SCADA based fault detectors will improve system restoration time by providing system operators a clearer picture of where a fault is located in a matter of minutes prior to operating a MOAB.
The 2009 EKPC Research and Development department budget contains $5,000 for a SCADA based fault locator pilot project.

Dynamic Thermal Circuit Ratings. EKPC has been engaged in a pilot project with Promethean Devices to install a transmission line sag measurement tool. On a grant

by the Department of Energy (DOE), EKPC was approached by Promethean devices to install and integrate their sag measurement tool into the EKPC DTCR system. The sag measurement tool is completely non-intrusive and measures the electromagnetic fields under a span of a transmission line to determine the transmission line's clearance from ground (sag measurement). This data will be correlated with DTCR computational results to provide a more accurate determination of the transmission's line capacity.

The 2009 EKPC Research and Development department budget contains $2,000 for the Promethean Devices installation. Equipment and travel costs of the vendor is contained in the DOE grant.

System Protection. The installation of microprocessor based relays has become standard practice at EKPC for new construction and substation upgrades. As such, all associated costs are included in all substation projects.

Phasor Measurement Units (PMU). EKPC has engaged in talks with the TVA and the Cooperative Research Network (CRN) to install PMU within the EKPC system. Because EKPC is a small system, the need for wide-spread deployment of PMUs does not make sense. However, the status of the EKPC system would provide TVA (EKPC's regional coordinator – RC) with enhanced visibility, which may be of value during region-wide system disturbances.

Though there is not a PMU budget item, funds for this project could be taken from the EKPC Research and Development department budget.

Digital Communication Link. EKPC will enhance its digital communications link to the CCD (Columbus, Cincinnati, Dayton) network. Because this expansion work is in preliminary discussions, there are no firm budgets or timelines. This work will likely occur in 2009 with a budget to be determined.

Members Big Sandy, Fleming-Mason, Licking Valley, and Taylor County have no plans regarding the installation of additional smart grid technology.

Blue Grass has budgeted in 2009 for an enhancement to its SCADA system and plans to enhance its AMR system.

Clark plans to upgrade its AMI system to a two-way communications system and plans to install SCADA sometime in the future.

Cumberland Valley has no current plans or money appropriated in the 2009 budget or work plan for additional installations and is not aware of any technology that it feels an urgent need to implement.

Farmers has budgeted $25,000 for 2009 for a pilot project for voltage control and remote disconnect/connect using its AMI system.

Grayson plans to convert from Turtle 1 equipment to Turtle 2 equipment over the next three to four years.

Inter-County has budgeted approximately $4.6 million for the installation of AMR technology, with an anticipated installation timeline beginning in 2010 with completion expected in 2011.

Jackson Energy currently is reviewing options available with the two-way TWACS system, but does not have budgets or timelines since it is still investigating options.

Nolin is presently evaluating smart grid technology.

Owen has SCADA, Cooper/Cannon AMI, and I-grid systems installed and are continually investigating new smart-grid opportunities. At this time Owen is beginning implementation of AMI "point of interest" meters on our system for tracking voltage and outage information. Owen is presently investigating home energy use panels. At present Owen has no capital projects identified.

Salt River is expanding AMR using meters capable of two-way signals, budgeting $5 million and is two thirds completed with the upgrade.

Shelby Energy is currently evaluating an AMI system, but has not developed budgets or timelines.

South Kentucky will continually evaluate any beneficial smart grid technology.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 55
RESPONSIBLE PERSON: **Robert J. Camfield**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 55. Refer to pages 4 through 6 of the Camfield Direct, regarding his recommendation that the Commission consider establishing a collaborative process with utilities and other stakeholders to monitor smart grid developments, etc. One of the reasons Mr. Camfield cites to support this recommendation is that "[e]vidence suggests that the Commission's current policy of monitoring industry developments and voluntary adoption is working satisfactorily." Explain how the current practice, which does not involve a collaborative process, can be considered as support for establishing such a process.

Response 55.
To clarify, the statement "evidence suggests that the Commission's current policy of monitoring industry developments and voluntary adoption is working satisfactorily" lends support for the recommendation, "...that the Commission not adopt a formal smart grid regulatory review standard..."
Potential benefits of smart grid technologies are likely to be inherently regional in nature, particularly where system reliability is concerned. Hence, a collaborative approach to monitoring including the Kentucky Public Service Commission and Kentucky/area utilities logically follows. There is precedence that regional benefits, concerns, and issues precipitate collaboration among utilities and stakeholders. Examples are readily at

hand: regional planning in the form of MTEP ("Midwest ISO Transmission Expansion Plan") of MISO and TEP ("Transmission Expansion Plan") of PJM; the eight regional reliability organizations under the NERC/ERO umbrella; and regional collaboration at the regulatory governance level in the form of OMS ("Organization of MISO States"). Additionally, Owen is very willing to collaborate and work with any and all utilities to expand its knowledge of smart grid possibilities. Owen has a meeting scheduled with Duke Energy to tour Duke Energy's smart home demo in Northern Kentucky. Owen anticipates contacting LG&E and fellow cooperatives to investigate their success with a smart home pilot projects. Owen is also a member of an Energy Innovation Task Force of ten fellow cooperatives across the United States.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2008-00408
INITIAL DATA REQUEST RESPONSE

COMMISSION STAFF'S INITIAL DATA REQUEST DATED 03/16/09
REQUEST 120
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 120. The American Recovery and Reinvestment Act of 2009 ("Stimulus Bill") contains a number of spending and tax measures crafted to inject more aggregate demand into the nation's sagging economy. Some of those measures impact, among other things, energy infrastructure. Certain provisions of EISA 2007 have been amended to reflect the incentives enacted by the Stimulus Bill, particularly in the area of smart grid technology. Explain whether or not your opinion on smart grid investments has changed in light of these amendments.

Response 120.

EKPC EKPC's opinion on smart grid investment has not changed, although stimulus funding opportunities are being sought by EKPC. It is conceivable that EKPC could speed up investments specific to the smart grid, relative to a traditional investment, should stimulus funds be available and affordable.

Members Owen is very supportive and interested in utilizing smart grid technology as a means of improving system reliability, outage response, and member satisfaction. The advent of stimulus funds may expedite Owen's efforts to install smart grid technology. The pertinent question regarding new technology always centers on whether the technology has crossed the threshold from bleeding technology to cutting edge technology.

The remaining members have not reached a conclusion on the impact of these amendments.