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Attorneys at Law

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July 17, 2012

RECEIVED

JUL 17 2012

PUBLIC SERVICE COMMISSION

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

RE: *In the Matter of the 2012 Integrated Resource Plan of East Kentucky Power Cooperative, Inc.*, Case No. 2012-00149

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 Sonia McElroy's and Sierra Club's ("Movants") Initial Requests for Information, dated June 8, 2012. Please return a file stamped copy to my office.

Please let me know if you have any questions.

Sincerely,

David S. Samford

Enc.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	) CASE NO.) 2012-00149

RESPONSES TO SONIA MCELROY AND SIERRA CLUB "MOVANTS" INITIAL REQUESTS FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED JUNE 8, 2012

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Jeffrey M. Brandt, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Jeffrey M. Brandt

Subscribed and sworn before me on this 17th day of July, 2012.

Gwyn M. Willoughby
Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

David Crews, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Scott Drake, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Scott Drake

Subscribed and sworn before me on this 19th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Jamie Bryan Hall, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Jamie Bryan Hall

Subscribed and sworn before me on this 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Craig A. Johnson, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Craig A. Johnson

Subscribed and sworn before me on this 16 day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Jerry Purvis, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Jerry Purvis

Subscribed and sworn before me on this 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Gary G. Stansberry, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Gary G. Stansberry

Subscribed and sworn before me on this 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

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 Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Ann F. Wood, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sonia McElroy and Sierra Club's Initial Requests for Information in the above-referenced case dated June 8, 2012, 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.

Ann F. Wood

Subscribed and sworn before me on this 17th day of July, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2012-00149

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

East Kentucky Power Cooperative, Inc. ("EKPC") hereby submits responses to the information requests of Sonia McElroy and Sierra Club ("Movants") in this case dated June 8, 2012. Each response with its associated supportive reference materials is individually tabbed.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 1
RESPONSIBLE PERSON: **Ann F. Wood**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 1. Produce all discovery responses to any other party in this proceeding.

Response 1. All discovery responses in this proceeding may be found on the Commission's website in Case No. 2012-00149.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 2
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 2. Produce a non-redacted, color, electronic version of the IRP filing, including Appendices.

Response 2. EKPC declines to provide a non-redacted, color, electronic version of the total IRP filing as EKPC does not have a signed confidentiality agreement with Movants.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 3
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 3. Produce any workpapers, source documents, and, in machine readable or txt format, input and output files for all modeling that you carried out in creating the IRP, including but not limited to any workpapers, source documents, and modeling files for the 2011 Load Forecast, 2010 Load Forecast, and DSM Report.

Response 3. EKPC declines to respond to this request based on the grounds that the request is overly broad and unduly burdensome.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 4
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 4. Produce any workpaper or source document for projecting the number of customers in EKPC's service area.

Response 4. EKPC declines to respond to this request based on the grounds that the request is overly broad and unduly burdensome.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 5
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 5. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of supply-side resources in the IRP.

Response 5. The inputs associated with the supply-side resources are detailed in Table 8.(2)(c) on page 159 of the IRP. The output from the process is detailed in Table 8.5(a) on page 162 of the IRP. The ranking by various costs was detailed in the response to Request 14 of Commission Staff's First Request for Information. Note that EKPC cannot provide machine-readable information as this is proprietary to the program developer.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 6
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 6. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of demand-side resources in the IRP.

Response 6. EKPC declines to respond to this request based on the grounds that the request is overly broad and unduly burdensome.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 7
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 7. Produce in machine readable or txt format the input and output files for each sensitivity analysis that you considered as part of this resource planning process.

Response 7. There were no sensitivity analyses considered as part of this resource planning process.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 8
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 8. Refer to p. 3 of the IRP. Produce the Rural Utilities Services approved Work Plan referenced therein.

Response 8. The RUS-approved 2011 Load Forecast Work Plan is included in the back of Technical Appendix - Load Forecast, Volume 1, just after page 89 of the 2010 Load Forecast.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 9
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 9. Refer to p. 4 of the IRP.

Request 9a. a. Identify the bases for EKPC's belief that "an aggressive but reasonable DSM goal would be to pursue approximately 50 MW over a five year period."

Response 9a. Please see EKPC's response to Request 1a and 1b of Commission Staff's First Request for Information, filed with the Commission on June 25, 2012.

Request 9b. State whether that 50MW figure represents winter peak demand reduction or summer peak demand reduction.

Response 9b. It represents summer peak demand reduction.

Request 9c. State whether that 50MW figure represents cumulative or annual peak demand savings.

Response 9c. It is cumulative for the 5 years.

Request 9d. Identify the energy savings that would result from the "aggressive but reasonable DSM goal."

Response 9d. The energy savings is 27,848 MWh.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 10
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 10. Refer to p. 8 of the IRP. With regards to the statement that "EKPC's experience indicates that the financial investment required to successfully implement DSM programs exceeds the investment assumed in the California tests, principally due to promotional costs incurred to derive awareness, education and adoption in the EKPC service territory":

Request 10a. Identify the specific experience referenced therein.

Response 10a. EKPC has implemented DSM programs since the 1990s. Its service territory is large, diverse and rural in nature. The cost to promote and advertise across that area will average more per person than the standard urban investor-owned utility spends on similar coverage. There is no one newspaper, television station or other medium for system-wide coverage. Kentucky Living, a monthly publication, is the only area-wide form of communication.

Request 10b. Identify the percent or amount by which "the financial investment required to successfully implement DSM programs exceeds the investments assumed in the California tests".

Response 10b. EKPC is not aware of the specific percentage

Request 10c. Identify and produce any documents, studies, or analyses upon which that statement is based.

Response 10c. This statement is based on experience only, not on quantifiable study or analysis.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 11
RESPONSIBLE PERSON: **Jeffrey M. Brandt**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 11. Refer to pp. 21-22 of the IRP.

Request 11a. Identify and produce any evaluation created or reviewed by EKPC of the availability, feasibility, or cost of existing or new cogeneration in the EKPC/Distribution Cooperative service territory.

Response 11a. Any evaluation created or reviewed by EKPC regarding the availability of any generation or other power supply resource, being developed by someone other than EKPC, is subject to a confidentiality agreement between the potential developer and EKPC; therefore, this information cannot be supplied. All self-build options considered by EKPC are documented in the IRP.

Request 11b. Identify the basis for your statement that "there has been limited opportunity for the addition of cogeneration in the EKPC/Distribution Cooperative service territory."

Response 11b. EKPC currently has one cogeneration facility located within its service territory. This is the basis for the statement.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 12
RESPONSIBLE PERSON: **Jeffrey M. Brandt**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 12. Refer to pp. 22-23 of the IRP:

Request 12a. Identify and produce any evaluation created or reviewed by EKPC of the cost, feasibility, or availability of existing or new distributed generation in the EKPC/Distribution Cooperative service territory.

Request 12b. Identify each of the stranded gas reserves distributed generation projects EKPC has discussed with developers over the past several years.

i. Identify the size and cost of each such project that EKPC considered to be "economically viable" and explain why EKPC did not pursue each such project.

ii. Identify the size and cost of each such project that EKPC considered not to be "economically viable."

Response 12a-b. Please see the response to Request 11a.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 13
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 13. Refer to p. 44 of the IRP. Identify the basis for assuming that EKPC will add 20 industrial customers in 2012, and state how many such customers have been added in 2012 to date.

Response 13. The annual change in industrial customers is calculated by subtracting the annual values of the level of industrial customers. The forecast for the 2012 level was obtained from EKPC's 2010 Load Forecast, as adjusted in early 2011. The actual value for the 2011 level was obtained from owner-member cooperatives' annual RUS Form 7 filings that were submitted in March 2012. This was the latest official data available to EKPC at the time of its IRP filing.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 14
RESPONSIBLE PERSON: **Craig A. Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 14. Refer to p. 140 of the IRP. Produce the "original MEAGER 2000 Study," the "current annual update prepared by EKPC," and the "final report to be submitted to EKPC's Board of Directors" referenced therein.

Response 14. EKPC declines to provide the original MEAGER 2000 Study, as it was prepared in the 1980's and has no relevance on EKPC's 2012 IRP. The current annual update prepared by EKPC is included in the 2012 IRP on pages 140 ("2011 MEAGER Study") through 152. Please note that there is no formal "final report to be submitted to EKPC's Board of Directors"; the intent of this statement was to explain that any major power production project is cost justified and brought before the Board of Directors for approval prior to starting the project.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 15
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 15. Refer to p. 160 of the IRP. With regards to each out-of-state wind project that EKPC "participated in the evaluation of" identify:

a. The size of the project;
b. The price of the project;
c. Whether the project is existing or proposed;
d. Explain why EKPC did not proceed with the project.

Response 15. Please see the response to Request 11a.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 16
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 16. Identify and produce any evaluation created or reviewed by EKPC of the cost, feasibility, or availability in the EKPC/Distribution Cooperative service territory, Kentucky, or any neighboring state of any of the following supply side resources:

a. Wind;
b. Solar;
c. Hydro;
d. Landfill gas to energy;
e. Existing natural gas combined cycle capacity;
f. New natural gas combined cycle capacity.

Response 16. Please see the response to Request 11a.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 17
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 17. Refer to p. 162, Table 8.5(a) of the IRP. With regards to the five cases identified therein;

Request 17a. State whether any of the cases assume the retirement of any of EKPC's existing coal-fired generating units.

i. If so, identify which unit or units and when they are assumed to retire.

ii. If not, explain why not.

Response 17a. EKPC has no plans to retire any of its coal-fired generating units. Please also see the narrative in section 1.4 on page 6 of the IRP.

Request 17b. Identify the environmental modification listed in Case 5, the unit to which such modification would be made, and the capital cost of such modification.

Response 17b. The assumption, for scenario purposes only, was the installation of dry scrubber technology on Cooper Station Unit 1.

Request 17c. State whether any of the other cases assume the installation of pollution controls on any of EKPC's existing coal-fired generating units.

i. If so, identify the controls to be installed, the units on which they would be installed, the years in which such installation would occur, and the capital cost of such installations.

ii. If not, explain why not.

Response 17c. None of the other cases from the five presented included emission controls, as all other units capable of emission controls are suitably equipped.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 18
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 18. Refer to p. 168 of the IRP:

Request 18a. Explain why for the years 2016 through 2026, EKPC plans to generate more GWh of energy from coal than the forecast GWh energy need for each such year.

Response 18a. Due to an error in the spreadsheet calculation, the coal generation row was not updated. A revised Table 8.(4)(b)1-4 is provided on page 3 of this response.

Request 18b. State whether EKPC plans to sell all or some of the excess energy generated from coal in each of the years 2016 through 2026 to non-EKPC customers.

i. If so, identify the level of revenue estimated to be produced through such sales.

ii. Produce any analysis of the cost effectiveness of selling excess energy generated from coal in each of the years 2016 through 2026 to non-EKPC customers in comparison to retiring excess EKPC coal resources.

Response 18b. i. The level of revenue estimated is included on page 187 of the IRP.

ii. Retirement of resources as compared to off-system sales was not performed.

Table 8.(4)(b)1-4 (Revised)

Forecast Energy Requirements (GWh) (as modeled)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	13,192.14	13,235.24	13,423.93	13,713.02	14,014.60	14,220.28	14,467.08	14,753.58	15,000.39	15,296.52	15,581.62	15,879.13	16,164.51	16,459.36	16,743.95
Generation (GWH)															
Coal	9,856.53	10,525.70	10,644.05	11,047.73	10,995.07	11,077.81	11,180.55	11,273.00	11,308.28	11,356.71	11,442.88	11,546.67	11,606.17	11,593.82	11,646.84
Natural Gas	1313.9	904.3	961.8	1467.0	2466.2	2505.2	2152.5	2390.9	1968.3	1920.1	2038.3	2616.0	2594.1	2596.9	2625.6
Landfill Gas	141.3	167.4	185.5	185.5	186.0	185.5	185.5	185.5	186.0	185.5	185.5	185.5	186.0	185.5	185.5
Total	11,311.66	11,597.39	11,791.38	12,700.24	13,647.24	13,768.55	13,518.57	13,849.35	13,462.57	13,462.29	13,666.71	14,348.14	14,386.25	14,376.23	14,457.97
Purchases (GWH)															
Firm Purchases-SEPA	252	258	259	255	259	258	262	259	254	257	257	258	259	259	258
Firm Purchases-Other Utilities	649	438	438	0	0	0	0	0	0	0	0	0	0	0	0
Firm Purchases-Non-Utilities	934	597	523	467	256	282	118	156	99	127	114	92	103	123	142
Total	1835	1293	1219	722	515	540	380	415	353	385	371	350	362	382	400

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 19
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 19. Refer to p. 172 of the IRP. With regards to the emissions testing that EKPC is conducting "to determine the best way to achieve compliance with the MATS rule":

Request 19a. Identify and produce the results of all emissions testing completed to date.

Request 19b. Identify any additional emissions testing that EKPC is undertaking or plans to undertake.

Request 19c. Identify the schedule by which EKPC expects to have all such emissions testing completed.

Response 19a-c. EKPC declines to respond as the results of emissions testing are not relevant for purposes of the IRP.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 20
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 20. Refer to p. 172 of the IRP. With regards to the "extensive engineering effort to ensure that EKPC's units comply" with the MATS rule:

Request 20a. Describe the "extensive engineering effort" and the steps that are planned for that effort.

Request 20b. Identify the schedule for the "extensive engineering effort".

Request 20c. Identify any outside consultants or engineering firms involved in the "extensive engineering effort".

Response 20a-c. EKPC's environmental, production and legal staff closely monitor all new EPA rules and regulatory actions. EKPC has tracked the MATS rule throughout its history and is in the process of evaluating which emissions limits each EKPC unit will meet, the schedule for compliance and how to integrate the work practice standards. As part of this process, EKPC is in the process of engaging an engineering firm to conduct a formal analysis which should be complete by the end of the year.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 21
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 21. For each of EKPC's coal-fired electric generating units, identify the unit's emissions rate in lbs/mmBtu and total emissions in pounds or tons per year for each of 2009, 2010, and 2011 for each of the following pollutants:

a. Mercury;
b. Sulfur dioxide;
c. HCl;
d. Particulate matter.

Response 21. Please see the response to Request 19a-c.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 22
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 22. Refer to pp. 172-173 of the IRP:

Request 22a. Identify the basis for claiming that "CSAPR is likely to be remanded to EPA for revision which will further delay the CSAPR rule."

Response 22a. EKPC's analysis of the posture of the CSAPR appeal and the proceedings to date lead it to believe that the rule is likely to be remanded.

Request 22b. In the event that CSAPR is upheld by the U.S. Court of Appeals for the D.C. Circuit, identify what steps EKPC would need to take to come into compliance with CSAPR.

Response 22b. EKPC anticipates that its current fleet and environmental control strategy will allow its fleet to operate within current CSAPR allowance allocations.

Request 22c. Produce any documents regarding the steps EKPC would need to take to comply with CSAPR as it was finalized by U.S. EPA.

Response 22c. CSAPR is currently stayed by the United States Court of Appeals for the District of Columbia Circuit. At this point in time there are no CSAPR compliance requirements.

Request 22d. State whether EKPC has taken any steps to date to comply with CSAPR.

Response 22d. The emissions controls installed on Spurlock 1 and 2 and Cooper 2 as part of the New Source Review Consent Decree compliance and the state of the art controls installed during the construction or Spurlock 3 and 4 will allow EKPC to operate within current CSAPR allowance allocations.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 23
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 23. Produce any air quality modeling or other evaluations created or reviewed by EKPC or its agents of whether emissions from any of EKPC's coal-fired generating units cause or contribute to violations of the 1-hour SO_2 NAAQS.

Response 23. Please see the response to Request 19a-c. Note that no 1-hour modeling has been performed.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 24
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 24. Refer to p. 176 of the IRP. With regards to the controls that EKPC "has committed" to installing on Cooper Unit 1:

Request 24a. Identify each such control EKPC has committed to installing.

Request 24b. Identify the projected capital cost for each such control.

Request 24c. Identify the projected annual O&M cost for each such control.

Request 24d. Identify the projected heat rate penalty for each such control.

Request 24e. Identify and produce any analysis comparing the cost of installing such controls and continuing to operate Cooper Unit 1 to the cost of retiring and replacing Cooper Unit 1.

Response 24a-e. In its initial BART compliance plan (7/23/07), EKPC committed to install wet flue gas desulfurization technology (FGD) and a wet electrostatic precipitator (ESP) on Cooper 1 and 2 to satisfy BART. KYDAQ included these controls in its initial

2008 Regional Haze SIP proposal. Later EKPC revised this plan (3/18/09) to demonstrate that dry FDG and fabric filter particulate control are equivalent to wet FGD and wet ESP. KYDAQ approved this revision (7/1/09) and revised its SIP submission to EPA. EPA issued a final rule, effective April 30, 2012, approving the installation of dry FGD and fabric filter as BART for Cooper 1 and 2. EPA recently proposed to adopt the position that compliance with CSAPR/CAIR will equal BART compliance. KYDAQ is currently considering whether to revise its Regional Haze SIP to adopt EPA's latest position.

EKPC recently completed the installation of a dry FGD, SCR and fabric filter system on Cooper 2 and is evaluating potential compliance options for Cooper 1. At this time EKPC cannot identify specific controls that will be installed on Cooper 1 and therefore, cannot provide any of details requested in b-e above.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 25
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 25. Refer to pages 170-186 of the IRP. For each of the existing or proposed environmental regulations listed therein:

Request 25a. Identify any pollution controls that EKPC anticipates needing to install on each of its coal-fired generating units as a result of each such regulation.

Request 25b. For each such pollution control on each unit, identify the capital cost of the control.

Request 25c. For each such pollution control on each unit, identify the annual O&M cost of the control.

Request 25d. Produce a copy of any assessment or analysis of the need to install, and/or of the economics of installing, additional pollution controls at any of EKPC's coal-fired electric generating units in response to any existing or proposed environmental regulation.

Response 25a-d. EKPC's environmental, production and legal staff closely monitor all new EPA rules and regulatory actions. As each new regulation and regulatory action becomes final, EKPC finalizes specific compliance requirements and the schedule for achieving compliance. As part of this process, EKPC is in the process of engaging an engineering firm to conduct a formal analysis of all existing or proposed environmental regulations and potential compliance options and scenarios for the EKPC system which should be complete in 2013.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 26
RESPONSIBLE PERSON: **Craig A. Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 26. For each of the Cooper, Dale, or Spurlock coal-fired generating units:

a. Identify the expected retirement date.

b. Identify the current undepreciated book value, and the expected undepreciated book value in each year of 2013 through 2026.

c. Identify the current salvage value and the expected salvage value in each year of 2013 through 2026.

d. Produce the most recent depreciation study.

e. Produce the most recent condition or performance assessment.

f. Produce the most recent retirement, continued unit operation, or life extension study or analysis.

g. Produce any analysis or assessment of the economics of continued operation of such unit.

h. Produce any analysis or assessment of the impact that retirement of each unit would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability.

i. Identify any transmission grid upgrades or changes that would be needed to permit the retirement of any of the units.

j. Produce any analysis or assessment of the need for the continued operation of each unit.

Response 26a-j. As indicated on pages 56 through 61 of the IRP, EKPC has no plans to retire any of its units.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 27
RESPONSIBLE PERSON: **Craig A. Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 27. For each of the Cooper, Dale, or Spurlock coal-fired generating units, identify and produce any analysis of the net present value revenue requirement, cost, or feasibility of retiring the unit and replacing the energy or capacity produced by that unit with any of the following resources in comparison to continuing to operate such unit:

a. Energy efficiency;
b. Demand side management;
c. Demand response;
d. Combined heat and power;
e. Wind energy;
f. Solar;
g. Hydroelectric;
h. Construction of a new natural gas combined cycle facility;
i. Purchase of power from an existing natural gas combined cycle facility;
j. Purchase of an existing natural gas combined cycle facility;
k. Natural gas combustion turbines;
l. Power purchase agreements;
m. Market purchases;

n. A combination of any or all of the resources identified in subsections a through m above.

Response 27a-n. As indicated on pages 56 through 61 of the IRP, EKPC has no plans to retire any of its units.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 28
RESPONSIBLE PERSON: **Gary G. Stansberry**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 28. Refer to p. 187 and Table 9-1 of the IRP. For each of the Cooper, Dale, or Spurlock coal-fired generating units, identify the following values used in the calculation of present value revenue requirements identified therein:

a. The annual environmental capital expenditures for each year from 2012 through 2026.

b. The annual non-environmental capital expenditures for each year from 2012 through 2026.

c. The annual fixed O&M costs for each year from 2012 through 2026.

d. The annual variable O&M costs for each year from 2012 through 2026.

e. The annual fuel costs for each year from 2012 through 2026.

Response 28. EKPC declines to respond, as EKPC does not have a confidentiality agreement with Movants.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 29
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 29. Refer to p. 3 of the 2011 Load Forecast Work Plan. State whether EKPC has prepared preliminary 2012 load forecasts for each member system. If so, produce such forecasts.

Response 29. EKPC had not produced preliminary 2012 load forecasts at the time of its IRP filing.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 30
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 30. Refer to p. 8 of the Load Forecast Work Plan.

a. Identify the entity or entities from which EKPC purchased forecasted information about the US economy.

b. Identify and produce the long term economic forecast of the U.S. economy referenced therein.

c. Identify and produce the fuel price forecasts referenced therein.

Response 30. EKPC purchased the referenced data from IHS Global Insight. EKPC has no legal right to redistribute this data.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 31
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 31. Refer to p. 15 of the 2011 Load Forecast Work Plan. Identify each specific "government regulation" efficiency provision, including but not limited to any provisions of the Energy Independence and Security Act and the American Recovery and Reinvestment Act, that were accounted for in the Residential Customer Forecast. For each provision, identify the annual level of energy savings and peak demand reduction that were assumed in the forecast.

Response 31. According to the documentation of Itron's *2009 Residential Statistically Adjusted End-use (SAE) Spreadsheets*, "The updated end-use efficiency projections incorporate the standards established by the Energy Independence and Security Act of 2007 (EISA). In 2007, new standards were established for a number of appliances including dishwashers, clothes washers, and dehumidifiers. By far, the new lighting standards will have the most significant impact on residential electricity usage. The new standards go into effect in 2012 and are expected to reduce overall residential average use by 1.5% to 2.5% (depending on the region) in the 2012-2014 timeframe. Though significant, the impact is not as severe as that reflected in the 2008 efficiency projections, as EIA assumes a greater penetration of Compact Fluorescent Lamps (CFL) prior to 2012 due to utility Demand Side Management (DSM) programs and market-driven CFL

adoption." EKPC has no legal right to redistribute these spreadsheets, but they are based on and consistent with the EIA's *Annual Energy Outlook 2009*, which provides further documentation of the assumptions and is freely available to the public at http://www.eia.gov/oiaf/archive/aeo09/index.html.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 32
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 32. Refer to p. 18 of the 2011 Load Forecast Work Plan. Identify any efficiency provisions that were accounted for the in the Small Commercial Customer Forecast. For each provision, identify the annual level of energy savings and peak demand reduction that were assumed in the forecast.

Response 32. EKPC uses a purely econometric model, not a statistically-adjusted end-use model, to forecast the small commercial class, and therefore does not explicitly account for energy efficiency improvements.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 33
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 33. Refer to p. 31 of the 2010 Load Forecast. With regards to the "future electricity prices and customers response to fluctuations in price":

a. Identify the annual long term projected price of electricity used in the 2010 load forecast.

b. Identify the annual long term projected price of electricity used in the 2011 load forecast.

c. Identify the "assumptions about future environmental issues such as carbon legislation" used in the 2010 load forecast.

i. State whether the same assumptions about future environmental issues were used in the 2011 load forecast.

1. If not, identify what assumptions were used.

d. Produce the "most recent Board approved Twenty-year Financial Forecast" referenced therein.

Response 33a. Price data is listed on Table 9-1 of the 2009 EKPC IRP.

Response 33b. Please see the response to Request 33a.

Response 33c. Please see pages 8-60 through 8-62 of the 2009 IRP.

Response 33c.i. Yes, these are the same.

Response 33d. Please see page 9-1 of the 2009 IRP.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 34
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 34. Refer to p. 31 of the 2010 Load Forecast. With regards to the "efficiency improvements" referenced therein:

a. Identify each efficiency improvement that was accounted for in the 2010 load forecast.

b. Explain how each such efficiency improvement was accounted for in the 2010 load forecast.

c. Identify the annual energy savings assumed in the 2010 load forecast from each efficiency improvement.

d. Identify the peak load reduction assumed in the 2010 load forecast from each efficiency improvement.

Response 34. Please see the response to Request 31.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 35
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 35. Refer to pp. 31-32 of the 2010 Load Forecast. With regards to the direct load control program referenced therein:

Request 35a. Identify the annual budget for that program.

Response 35a. EKPC declines to respond to this request as budget information is not relevant for purposes of this IRP.

Request 35b. Identify the actual annual spending on that program in each of 2008-2011.

Response 35b. EKPC declines to respond to this request as budget information is not relevant for purposes of this IRP.

Request 35c. Identify the level of winter peak reduction from the direct load control program that was achieved in each of 2008 through 2011.

Response 35c. Please see the table below.

Direct Load Control Events and Impacts				
Year	Season	# Times	# Hours	MW
2008	Winter	0	0	0
2008	Summer	0	0	0
2009	Winter	16	52	1.99
2009	Summer	22	88	3.05
2010	Winter	27	87	1.99
2010	Summer	21	84	5.04
2011	Winter	15	43	2.43
2011	Summer	11	43	6.94

Request 35d. Identify the level of summer peak reduction from the direct load control program that was achieved in each of 2008 through 2011.

Response 35d. Please see the response to Request 35c.

Request 35e. Identify the level of winter and summer peak demand reduction assumed in the 2011 load forecast to be achieved by the direct load control program in each of 2012 through 2026.

Response 35e. Please refer to Technical Appendix Load Forecast, Volume 1, Table 8-4, page 88. Note that the DSM reductions assumed in the 2011 load forecast update were identical to those assumed in the 2010 load forecast.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 36
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 36. Refer to p. 32, Table 3-6 of the 2010 Load Forecast. Present the equivalent data from the 2011 Load Forecast as is found in Table 3-6 for the 2010 and 2008 Load Forecasts.

Response 36. Please see the table on page 2 of this response.

Forecast Comparison				
		2011	**2010**	**2011 vs 2010**
Residential[1] Sales, MWh	2012	7,003,557	6,958,389	0.6%
	2013	7,002,550	6,971,071	0.5%
	2014	7,089,772	7,069,463	0.3%
	2017	7,388,272	7,406,187	-0.2%
	2022	8,042,476	8,072,889	-0.4%
Total Commercial and Industrial[2] Sales, MWh	2012	4,978,767	5,134,094	-3.0%
	2013	5,069,635	5,237,253	-3.2%
	2014	5,164,208	5,342,797	-3.3%
	2017	5,619,165	5,648,973	-0.5%
	2022	6,171,850	6,208,597	-0.6%
Residential[1] Customers	2012	497,343	499,198	-0.4%
	2013	503,831	505,938	-0.4%
	2014	510,687	513,348	-0.5%
	2017	532,736	536,497	-0.7%
	2022	572,442	576,461	-0.7%

Forecast Comparison				
		2011	**2010**	**2011 vs 2010**
Net Winter Peak MW	2013	3,002	3,059	-1.9%
	2014	3,016	3,101	-2.7%
	2017	3,145	3,245	-3.1%
	2022	3,379	3,547	-4.7%
Net Summer Peak MW	2013	2,234	2,282	-2.1%
	2014	2,232	2,309	-3.4%
	2017	2,292	2,402	-4.6%
	2022	2,469	2,640	-6.5%
Winter Peak DSM Impacts[3]	2013	267	163	63.8%
	2014	297	172	73.3%
	2017	367	195	88.6%
	2022	449	212	111.9%
Summer Peak DSM Impacts[3]	2013	240	178	34.7%
	2014	276	190	45.5%
	2017	361	218	65.5%
	2022	426	224	89.9%

[1] Includes Seasonal from RUS Form 7.

[2] Includes Public Buildings and Public Street and Highway Lighting from RUS Form 7.

[3] Includes direct load control, interruptible load and the various energy efficiency programs.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 37
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 37. Refer to p. 5 of the DSM Report found in Technical Appendix Volume 2. Identify the "utilities around the country" and the "best practice DSM programs" referenced therein.

Response 37. In the course of preparing the DSM portion of the IRP, EKPC relied on several sources to compile information on utility best practice programs, including the following comprehensive studies:

1. ACEEE, "Compendium of Champions: Chronicling Exemplary Energy Efficiency Programs from Across the U.S."
2. Institute for Electric Efficiency, "Compilation of U.S. Energy Efficiency Program Profiles"

Pages 2 and 3 of this response contain the list of utilities around the country. Pages 4 through 11 of this response contain the best practice DSM programs referred to on page 5 of the DSM Report.

Utility
Alliant Energy
Ameren Missouri
Anaheim Public Utilities
Aquila
Arizona Public Service
Austin Energy
Avista Utilities
Baltimore Gas & Electric
Bonneville Power Authority
California collaborative
Cape Light Compact
CenterPoint Energy
Central Hudson Gas & Electric
Cinergy/PSI Energy
Colorado E-Star
Commonwealth Edison
Connecticut Light & Power
Connecticut Light & Power/UI
Consolidated Edison
Dayton Power & Light
DTE Energy
Duke Energy
Efficiency Maine
Efficiency New Brunswick
Efficiency Vermont
Energy Trust of Oregon
Florida Power & Light
Georgia Power
GPU New Jersey
Great River Energy
Gulf Power
Hawaiian Electric
Idaho Power
Interstate Power & Light
Kansas City Power & Light
LG&E/KU
Long Island Power Authority
Los Angeles Dept of Water & Power
Mid-American Energy
National Grid
National Grid/NSTAR
NEEP, NWEEA
New Jersey Board of Public Utilities
New Jersey Office of Clean Energy

New York Power Authority
Northeast Energy Efficiency Partnership
Northeast Utilities
Northwest Energy Efficiency Alliance (130 utilities)
NSTAR Electric
NV Energy
NYSERDA
Omaha Public Power District
Ohio Dept of Development
Oncor Electric Delivery
Pacific Gas & Electric
Pacificorp
PECO (Excelon)
PG&E,SCE, SDG&E
PNM
Portland General Electric
PP&L Electric
Progress Energy
Public Service of New Hampshire
Puget Sound Energy
Rocky Mountain Power
Sacramento Municipal Utility District
San Diego Gas & Electric
Seattle City Light
Southern California Edison
Tacoma Power
Tucson Electric Power
TXU Electric Delivery
United Illuminating
Unitil
Utah Power (Pacificorp)
We Energies
Wisconsin Dept of Admin
Wisconsin Focus on Energy
Wisconsin Public Service
Xcel Energy
Xcel Energy - Minnesota
Xcel Energy - PS of Colorado

Utility	Category	Program
Alliant Energy	Residential HVAC	Heating, Cooling & Comfort Measure Rebates
Alliant Energy	Residential Appliance	Prescriptive Rebates/Appliance Recycling
Alliant Energy	Residential Lighting	Residential Lighting
Alliant Energy	C&I Buildings	Small Business Commercial & Industrial Services
Ameren Missouri	Residential Energy Information	OPOWER
Anaheim Public Utilities	C&I Buildings	Commercial Energy Audit
Aquila	C&I Buildings	Commercial Buildings
Arizona Public Service	Residential Lighting	ENERGY STAR Residential Lighting
Austin Energy	Residential HVAC	Residential Efficiency
Austin Energy	Home performance	Home performance with ENERGY STAR
Austin Energy	Home performance	Multi-family Energy Efficiency
Austin Energy	C&I Buildings	Small business rebate
Austin Energy	C&I Buildings	Commercial Retrofit Programs
Austin Energy	Residential New Construction	Green Building
Austin Energy	Home performance	Standard Offer Residential Energy Efficiency
Avista Utilities	C&I Buildings	Standard Offer C&I Energy Efficiency
Avista Utilities	C&I Buildings	Site-Specific C&I Energy Efficiency
Avista Utilities	C&I HVAC	Rooftop HVAC maintenance
Avista Utilities	Residential Low-Income	Residential Low Income
Baltimore Gas & Electric	Residential HVAC	Residential HVAC
Baltimore Gas & Electric	Residential Appliance	BGE Smart Energy Savers
Baltimore Gas & Electric	Residential Lighting	Residential Lighting and Appliance
Baltimore Gas & Electric	Residential Lighting	BGE Smart Energy Savers
Baltimore Gas & Electric	Home performance	Home performance with ENERGY STAR
Baltimore Gas & Electric	Industrial Process	Large C&I Custom
Baltimore Gas & Electric	C&I Buildings	Prescriptive
Baltimore Gas & Electric	C&I Buildings	Retro-Commissioning
Baltimore Gas & Electric	Small Commercial	Small Commercial
Bonneville Power Authority	C&I Buildings	Conservation & Renewables Discount
Bonneville Power Authority	C&I Buildings	Custom and Standardized Reimbursements
California collaborative	Schools	High Performance Schools
Cape Light Compact	C&I Buildings	Small Commercial & Industrial Retrofit
Cape Light Compact	C&I Buildings	Medium/Large Commercial & Industrial Retrofit
Cape Light Compact et al (NEEP)	Residential Appliance	Northeast ENERGY STAR Lighting & Appliance Initiative
CenterPoint Energy	Residential Low-Income	City of Houston Weatherization/Affordable Housing
CenterPoint Energy	Home performance	ENERGY STAR Homes
CenterPoint Energy	Home performance	Residential and Small Commercial SOP

CenterPoint Energy	C&I Buildings	Large Commercial & Industrial Standard Offer
CenterPoint Energy	C&I Buildings	Texas SCORE MTP
CenterPoint Energy	C&I Buildings	Retro-Commissioning MTP
CenterPoint Energy	Small Commercial	Residential & Small Commercial Standard Offer
CenterPoint Energy	Industrial Process	Custom Process Rebate
Central Hudson Gas & Electric	Residential Energy Information	Home Energy Reporting
Central Hudson Gas & Electric	Residential water heating	Heat Pump Water Heater
Cinergy/PSI Energy	Residential Low-Income	Indiana Low-Income Weatherization and Refrig Replace
Colorado E-Star	Home performance	Home performance with ENERGY STAR
Commonwealth Edison	Residential Lighting	ENERGY STAR Lighting
Connecticut Light & Power	Residential HVAC	Residential Heating & Cooling
Connecticut Light & Power	Residential HVAC	Ductless Mini-split Heat Pump Pilot
Connecticut Light & Power	Residential Lighting	Residential Retail Products
Connecticut Light & Power	Industrial Process	PRIME
Connecticut Light & Power/UI	C&I Buildings	Energy Conscious Blueprint
Connecticut Light & Power/UI	C&I Buildings	Energy Opportunities
Connecticut Light & Power/UI	Small Commercial	Small Business Energy Advantage
Consolidated Edison	Residential HVAC	Residential HVAC
Consolidated Edison	Home performance	Targeted Demand Side Management
Consolidated Edison	Small Commercial	Small Business Direct Install
Dayton Power & Light	Residential Portfolio	Lighting
Dayton Power & Light	Residential Portfolio	HVAC Diagnostic & Tune-Up
Dayton Power & Light	Residential Portfolio	Appliance Recycling
Dayton Power & Light	Residential Portfolio	Low-Income Affordability
Dayton Power & Light	Non-Residential Portfolio	Prescriptive Rebates
Dayton Power & Light	Non-Residential Portfolio	Custom Rebates
Dayton Power & Light	Industrial Process	Energy Partnership & Services
DTE Energy	Residential Low-Income	Low Income Services
Duke Energy	Residential HVAC/Lighting/Appliances	Smart $aver
Duke Energy	Home performance	Residential Energy Assessments
Duke Energy	C&I Buildings	Non-Residential Energy Assessments
Duke Energy	C&I Buildings	Commercial/Industrial and Small Business
Efficiency Maine	C&I Lighting	Bright Ideas Commercial Lighting
Efficiency New Brunswick	Home performance	Multifamily Housing
Efficiency Vermont	C&I Buildings	Business Energy Services
Efficiency Vermont	Agriculture	Dairy Farm Efficiency Services
Efficiency Vermont	C&I New Construction	Business New Construction
Efficiency Vermont	Residential Low-Income	Multifamily Low-Income
Efficiency Vermont	Residential New Construction	Vermont ENERGY STAR
Energy Trust of Oregon	Residential Appliance	ENERGY STAR Products

Energy Trust of Oregon	Home performance	Multi-family Home Energy Solutions
Energy Trust of Oregon	Home performance	Home Energy Solutions - New Homes
Energy Trust of Oregon	Home performance	Home Energy Solutions - Existing Homes
Energy Trust of Oregon	Industrial Process	Production Efficiency
Energy Trust of Oregon	C&I Buildings	Business Energy Solutions
Energy Trust of Oregon	C&I Buildings	Existing Buildings
Energy Trust of Oregon	C&I Buildings	Business Energy Solutions: New Buildings
Energy Trust of Oregon	Residential Niche	Manufactured Home Duct Sealing
Florida Power & Light	Residential Low-Income	Residential Low Income Weatherization
Florida Power & Light	Residential Air Conditioning	Residential Air Conditioning
Florida Power & Light	Residential Air Conditioning	Residential Building Envelope
Florida Power & Light	Residential Air Conditioning	DUCT System Testing and Repair
Florida Power & Light	Home performance	BuildSmart
Florida Power & Light	Industrial Process	Business Custom Incentive
Florida Power & Light	C&I Buildings	Business Energy Evaluation
Florida Power & Light	C&I Buildings	Business Building Envelope
Florida Power & Light	C&I Buildings	Business HVAC
Florida Power & Light	C&I Buildings	Business Water Heating
Florida Power & Light	C&I Buildings	Business Refrigeration
Florida Power & Light	C&I Buildings	Business Efficient Lighting
Florida Power & Light	C&I Lighting	Weatherization Assistance for Low Income Customers
Georgia Power	Residential Low-Income	Marathon Water Heater
Georgia Power	Residential Appliance	Refrigerator Recycling
Georgia Power	Residential Appliance	ENERGY STAR Appliances
Georgia Power	Residential Appliance	Compact Fluorescent Light Bulb
Georgia Power	Residential Lighting	ENERGY STAR New Home
Georgia Power	Home performance	Commercial Tax Incentive
Georgia Power	C&I Lighting	New Jersey Smart Start
GPU New Jersey	C&I Buildings	Energy Wise Appliances with ENERGY STAR
Great River Energy	Residential Appliance	Geothermal Heating and Cooling
Gulf Power	Residential HVAC	Solar Thermal Water Heating
Gulf Power	Residential Appliance	EarthCents Home
Gulf Power	Home performance	Commercial Geothermal Heat Pump
Gulf Power	C&I Buildings	EarthCents Commercial Buildings
Gulf Power	C&I Buildings	Commercial/Industrial Energy Analysis
Gulf Power	C&I Buildings	Energy $olutions for Business
Hawaiian Electric	C&I Buildings	Energy Efficiency for your Business
Idaho Power	C&I Buildings	See ya later, Refrigerator
Idaho Power	Residential Appliance	Ductless Heat Pump pilot
Idaho Power	Residential HVAC	Agriculture Energy Efficiency
Interstate Power & Light	Agriculture	

Interstate Power & Light	Residential New Construction	Iowa New Home Construction
Kansas City Power & Light	Residential Low-Income	Affordable New Homes
Kansas City Power & Light	Residential Low-Income	Low-Income Weatherization
Kansas City Power & Light	Residential HVAC	Cool Homes
Kansas City Power & Light	Residential Lighting	Change a Light, Change the World
Kansas City Power & Light	Home performance	Home performance with ENERGY STAR
Kansas City Power & Light	Home performance	ENERGY STAR New Homes
Kansas City Power & Light	C&I Buildings	Building Operator Certification
Kansas City Power & Light	C&I Buildings	Commercial & Industrial Energy Efficiency Rebate
LG&E/KU	Demand Response	Residential Load Management
LG&E/KU	Demand Response	Commercial Load Management
Long Island Power Authority	Residential HVAC	Cool Homes
Long Island Power Authority	Residential Lighting	Energy Efficient Products
Long Island Power Authority	C&I Buildings	Small - Midsized Business
Long Island Power Authority	C&I New Construction	Commercial Construction
Long Island Power Authority	Residential New Construction	ENERGY STAR Labeled Homes
Los Angeles Dept of Water & Power	Residential HVAC, Appliances	Consumer Rebate
Los Angeles Dept of Water & Power	Residential Lighting	Direct-to-Door CFL Distribution
Los Angeles Dept of Water & Power	Residential Lighting	CFL Manufacturer Buy-Down
Mid-American	Residential HVAC	Residential Equipment
Mid-American Energy	C&I Buildings	Energy Advantage for your Buildings
National Grid	Residential Low-Income	Low-Income Energy Wise
National Grid	Residential Appliance Low Income	Appliance Management Program
National Grid	Residential Low-Income	New Homes with ENERGY STAR
National Grid	Residential HVAC	ENERGY STAR HVAC
National Grid	Residential HVAC	COOL CHANGE with ENERGY STAR
National Grid	Residential Appliance	Demand Reduction Technology
National Grid	Residential Appliance	ENERGY STAR Appliances
National Grid	Residential Lighting	ENERGY STAR Lighting
National Grid	Home performance	Deep Retrofit pilot
National Grid	Home performance	EnergyWISE
National Grid	Home performance	New Homes with ENERGY STAR
National Grid	C&I Motor and HVAC	"Motor-Up" Motors initiative
National Grid	C&I Buildings	Whole Building Assessment
National Grid	C&I Buildings	Building Retro-commissioning
National Grid	C&I Buildings	Small Business
National Grid	C&I Buildings	Energy Initiative
National Grid	C&I Buildings	Design 2000 Plus
National Grid	C&I Buildings	ENERGY STAR Commercial Building Large Business
National Grid	C&I Buildings	ENERGY STAR Commercial Building Small Business

National Grid	Small Commercial	Small Business Energy Services
National Grid	C&I New Construction	Advanced Buildings
National Grid	Schools	Schools Initiative
National Grid/NSTAR	Home performance	MassSave Home performance with ENERGY STAR
NEEP, NWEEA	C&I Buildings	Building Operator Certification
New Jersey Board of Public Utilities	C&I Buildings	New Jersey Smart Start
New Jersey Office of Clean Energy	Residential HVAC	COOLAdvantage
New York Power Authority	C&I Buildings	Electrotechnologies
New York Power Authority	C&I Buildings	Design & Implementation
Northeast Energy Efficiency Partnership	C&I HVAC	Cool Choice
Northeast Utilities	C&I New Construction	Energy conscious Construction
Northeast Utilities	C&I Comprehensive	Custom Services
Northwest Energy Efficiency Alliance (130 utilities)	Residential Lighting	ENERGY STAR Residential Lighting
Northwest Energy Efficiency Alliance (130 utilities)	C&I Buildings	BetterBricks
Northwest Energy Efficiency Alliance (130 utilities)	C&I Buildings	Target Markets
Northwest Energy Efficiency Alliance (130 utilities)	C&I Buildings	Building Performance Services (O&M market)
Northwest Energy Efficiency Alliance (130 utilities)	Residential Appliance	ENERGY STAR Home Products
Northwest Energy Efficiency Alliance (130 utilities)	Residential Niche	ENERGY STAR Residential Windows
NSTAR Electric	Residential HVAC	COOL SMART with ENERGY STAR
NSTAR Electric	Residential Lighting	Northeast ENERGY STAR Lighting & Appliance Initiative
NSTAR Electric	Industrial Process	Compressed Air Leak and Detection Remediation
NSTAR Electric	C&I Buildings	Small Business Solutions
NSTAR Electric	C&I Buildings	Business Solutions
NSTAR Electric	C&I Lighting	Performance Lighting
NV Energy	Residential Low-Income	Low-Income Weatherization
NV Energy	Residential HVAC	High Efficiency AC Rebate & Tune-Up
NV Energy	Residential Appliance	Energy Efficient Pool Pumps
NV Energy	Residential Appliance	Second Refrigerator Collection & Recycling
NV Energy	Residential Lighting	ENERGY STAR Lighting
NV Energy	Home performance	ENERGY STAR Manufactured Homes
NV Energy	C&I Buildings	Sure Bet Commercial
NV Energy	C&I Buildings	Plug Loads
ergy Research & Development Authority (NYSERDA)	Residential Low-Income	EmPower New York
NYSERDA	Residential HVAC	Residential ENERGY STAR HVAC
NYSERDA	Residential Appliance , Lighting	New York Energy $martSM Products
NYSERDA	Home performance	Home performance with ENERGY STAR
NYSERDA	Home performance	Multifamily Performance
NYSERDA	C&I Buildings	Industrial R&D
NYSERDA	C&I Buildings	Building Commissioning
NYSERDA	C&I Buildings	HVAC

NYSERDA	C&I Buildings	Commercial Heat Pump Water Heating
NYSERDA	C&I Buildings	Premium Efficiency Motors
NYSERDA	C&I Buildings	C&I Performance
NYSERDA	C&I Buildings	Technical Assistance
NYSERDA	C&I Buildings	New York Energy $mart Loan
NYSERDA	C&I Buildings	Smart Equipment Choices
NYSERDA	C&I Lighting	New York Energy $mart Small Commercial Lighting
NYSERDA	Schools	Energy Smart Schools
NYSERDA	Industrial Process	Industrial Process Efficiency
Omaha Public Power District	Residential HVAC	Air Source Heat Pump rebate
Ohio Dept of Development	Residential Low-Income	Electric Partnership - High Use
Oncor Electric Delivery	Residential HVAC	AC Installer Information and Training
Oncor Electric Delivery	Residential New Construction	ENERGY STAR Homes
Oncor Electric Delivery	C&I Buildings	Commercial Energy Audit
Pacific Gas & Electric	Residential Low-Income	Energy Partners
Pacific Gas & Electric	Residential HVAC	HVAC
Pacific Gas & Electric	Residential Appliance	High Efficiency Appliance Rebate
Pacific Gas & Electric	Residential Lighting	Upstream Lighting
Pacific Gas & Electric	C&I Motor and HVAC	Motor and HVAC Distributor Rebate
Pacific Gas & Electric	Agriculture	Agriculture and Food Processing Energy Efficiency
Pacific Gas & Electric	C&I Niche	High Tech Energy Efficiency
Pacific Gas & Electric	C&I Niche	Local Government Energy Watch Partnership
Pacific Gas & Electric	Food Service	Food Service Technology Center
Pacific Gas & Electric	Residential HVAC	Refrigerant Charge and Air Flow Tune-Up
Pacific Gas & Electric	Small Commercial	Downstream Express Efficiency
Pacific Gas & Electric	Industrial Process	Compressed Air Management
Pacificorp	Residential Appliance	Home Energy Savings
Pacificorp	Residential Lighting	Home Energy Savings
Pacificorp	C&I Buildings	Energy FinAnswer
Pacificorp	C&I Buildings	FinAnswer Express
PECO (Excelon)	Residential Low-Income	Low Income Usage Reduction
PECO (Excelon)	Special	Conservation Voltage Reduction
PECO (Excelon)	Residential Lighting	CFL Initiative
PECO (Excelon)	Residential Appliance	Appliance Pickup
PG&E,SCE, SDG&E	Residential Appliance	California Statewide Appliance Recycling
PG&E,SCE, SDG&E	Home performance	Designed for Comfort (Affordable housing)
PG&E,SCE, SDG&E	Home performance	ENERGY STAR New Homes
PG&E,SCE, SDG&E	Home performance	CA Statewide Multifamily Energy Efficiency Rebate
PG&E,SCE, SDG&E	C&I Buildings	Express Efficiency

PG&E,SCE, SDG&E	C&I Buildings	Upstream Motors and HVAC
PG&E,SCE, SDG&E	C&I Buildings	Education and Training
PG&E,SCE, SDG&E	C&I Buildings	Standard Performance Contract
PG&E,SCE, SDG&E	C&I Emerging Technologies	CA Statewide Emerging Technologies
PG&E,SCE, SDG&E	Schools	Higher Education Energy Efficiency Partnership
PG&E,SCE, SDG&E	Small Business	Small Business Rebate
PG&E,SCE, SDG&E	Residential Appliance	Refrigerator Recycling
PNM	Residential Lighting	CLF School and Community Event
PNM	Residential Lighting	Home Lighting Discount
PNM	C&I Buildings	Existing Building Commissioning
Portland General Electric	Residential Energy Information	Energy Efficiency Behavior & Education
PP&L Electric	Residential Lighting	CFL
PP&L Electric	Residential Low-Income	The Neighborhodd Energy Saver
Progress Energy	Demand Response	Load control pilot for electric heat
Progress Energy	C&I Buildings	Small Business Energy Solutions
Public Service of New Hampshire	C&I Buildings	Large Business Retrofit
Public Service of New Hampshire	Residential Lighting	ENERGY STAR Residential Lighting
Puget Sound Energy	C&I Buildings	Energy Efficiency Services
Puget Sound Energy	Demand Response	Non-residential Load Curtailment
Puget Sound Energy	Residential Retrofit	Rebates on energy efficient equipment & windows
Puget Sound Energy	Home performance	ENERGY STAR New Homes
Rocky Mountain Power	Residential HVAC	Equipment Efficiency
Sacramento Municipal Utility District	Residential Lighting	Residential Retail Lighting
Sacramento Municipal Utility District	Residential Niche	Residential Cool Roof
Sacramento Municipal Utility District	Residential Appliance Recycling	Old Refrigerator Pickup & Recycling
Sacramento Municipal Utility District	Residential Niche	Shade Tree
Sacramento Municipal Utility District	Residential Energy Information	OPOWER pilot
San Diego Gas & Electric	Residential HVAC	Single Family Rebate
San Diego Gas & Electric	C&I Buildings	Small Businesses
San Diego Gas & Electric	C&I Buildings	Medium & Large Businesses
San Diego Gas & Electric	C&I Buildings	Sustainable Communities
Seattle City Light	Residential New Construction	Multi-family New Construction
Seattle City Light	C&I Buildings	Comprehensive Energy Efficiency
Southern California Edison	Residential HVAC	Single Family Energy Efficiency Rebate
Southern California Edison	C&I Emerging Technologies	Innovative Designs for Energy Efficiency Applications
Southern California Edison	Residential Appliance Recycling	Residential Appliance Recycling
Tacoma Power	Residential HVAC	Heat Pump System Rebate
Tacoma Power	Residential Appliance	WashWise Clothes Washer Rebate
Tacoma Power	Residential Appliance	Refrigerator Decommissioning & Recycling
Tucson Electric Power	Residential New Construction	Guarantee Home

Tucson Electric Power	C&I Buildings	Retro-Commissioning
Tucson Electric Power	Schools	School Facilities
Tucson Electric Power	Residential Performance	Existing Home and Audit Direct Install
TXU Electric Delivery	C&I Buildings	Air Conditioning Distributor Market Transformation
TXU Electric Delivery	C&I Buildings	Small Commercial Standard Offer
TXU Electric Delivery	C&I Buildings	Commercial and Industrial Standard Offer
United Illuminating	C&I Buildings	Small Business Energy Advantage
United Illuminating	C&I Buildings	Energy Opportunities
United Illuminating	C&I Buildings	Municipal Energy Service
United Illuminating	C&I Buildings	Energy Blueprint
Unitil	C&I Buildings	Small Business Energy Efficiency Solutions
Unitil	C&I Buildings	Commercial and Industrial Services
Utah Power (Pacificorp)	Residential HVAC	Cool Cash Incentive
We Energies	C&I Buildings	Commercial and Industrial Services
We Energies	C&I Buildings	Commercial & Industrial New Construction
Wisconsin Dept of Admin	Residential HVAC	Efficient Heating & Cooling Initiative
Wisconsin Dept of Admin	Home performance	Home Performance with ENERGY STAR
Wisconsin Focus on Energy	Residential Appliance	Focus on Energy
Wisconsin Focus on Energy	Residential Lighting	Residential Lighting
Wisconsin Focus on Energy	Industrial Process	Industrial
Wisconsin Focus on Energy	Agriculture	Agricultural and Rural Business
Wisconsin Public Service	C&I Buildings	Energy Saving Tools & Ideas
Xcel Energy	Residential Lighting	Home Lighting
Xcel Energy	C&I Lighting	One-Stop Efficiency Shop Lighting Rebate
Xcel Energy	C&I Lighting	Lighting Efficiency
Xcel Energy	C&I Retrofit	Custom Efficiency
Xcel Energy	C&I Buildings	Energy Design Assistance - Custom Consulting
Xcel Energy - Minnesota	C&I Buildings	Business Services
Xcel Energy - PS of Colorado	Business Program	Compressed Air Efficiency
Xcel Energy - PS of Colorado	Business Program	Cooling Efficiency
Xcel Energy - PS of Colorado	Business Program	Energy Management Systems
Xcel Energy - PS of Colorado	Business Program	Process Efficiency
Xcel Energy - PS of Colorado	Business Program	Re-commissioning
Xcel Energy - PS of Colorado	Residential Program	High-efficiency air conditioning

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 38
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 38. Refer to p. 5 of the DSM Report found in Technical Appendix Volume 2. Identify and produce the "regional studies of energy efficiency opportunities" referenced therein.

Response 38. This refers to the following studies (URLs provided where available):

1. Southeast Energy Efficiency Alliance, "Energy Efficiency in Appalachia", May 2009. http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=70

2. Kentucky Pollution Prevention Center, "An Overview of Kentucky's Energy Consumption and Energy Efficiency Potential", August 2007. https://louisville.edu/kppc/files/kppc/KYE2PotentialStudyFinalReport82207_508.pdf

3. Kentucky Environmental Foundation, Kentuckians for the Commonwealth, Sierra Club, "A Portfolio of Energy Efficiency and Renewable Energy Options for East Kentucky Power Cooperative", February 2008. http://kyenvironmentalfoundation.org/ekpc_energy_portfolio.pdf

4. Midwest Energy Efficiency Alliance, "Midwest Residential Market Assessment and DSM Potential Study", March 2006. http://mwalliance.org/sites/default/files/uploads/MEEA_2006_Midwest%20Market%20Assessment%20Final%20Report.pdf

5. ACEEE, "Shaping Ohio's Energy Future: Energy Efficiency Works", March 2009. http://www.aceee.org/research-report/e092

6. Regulatory Assistance Project, "Challenges and Opportunities for Residential Lighting Programs", November 2011. http://www.raponline.org/document/download/id/4642

7. Center for Energy & Environmental Policy, "Delaware's Energy Efficiency Potential and Program Scenarios to Meet its Energy Efficiency Resource Standard", May 2011. http://www.dnrec.delaware.gov/energy/information/Documents/EERS/2011%20CEEP%20EERS%20Study.pdf

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 39
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 39. Refer to p. 6 of the DSM Report found in Technical Appendix Volume 2. Identify how each of the 113 DSM measures referenced therein scored on each of the four screening criteria.

Response 39. Pages 2 through 11 of this response reflect how each of the 113 DSM measures scored on each of the four qualitative screening criteria.

DSM Qualitative Screening

DSM Qualitative Screening

Residential Programs	Short Description	Customer Acceptance	Measure Applicability	Savings Potential	Cost Effectiveness	Total Score
Weatherization						
Wholistic Weatherization	A tiered approach to weatherization that will incent based on various levels of defined achievements. The tiers would be defined and the rebates would be graduated based on levels.	4.0	4.3	4.1	3.9	16.3
0						
1 Low income weatherization	Insulation, a/c tune-up, duct sealing, air sealing, programmable t-stats, hot water conservation measures and cfls to low income households to work in tandem with state weatherization program.	4.7	4.2	4.3	4.0	17.1
2 Enhanced Button-Up (air sealing)	As an option added to the Button Up program, thermal bypasses from unheated to heated areas are sealed to lower infiltration losses. An additonal incentive is given based on documented savings from pre and post blower door tests.	4.0	4.4	4.0	3.8	16.3
3 Enhanced Tune-Up (duct sealing)	This has been incorporated into the company's Tune-Up program.	3.8	4.0	3.9	3.8	15.4
4 Mobile home retrofit program	Duct sealing, attic insulation, air sealing, a/c/heat pump tune-up, programmable t-stat, water heater measures cfls, and incentives for replacing inefficient refrigerators.	3.8	3.8	4.3	3.2	15.1
5 Low flow showerhead with faucet aerator/pipe insulation	Self-Explanatory	2.7	2.8	2.4	2.7	10.6
Demand Response						
6 Direct load control - pool pump	Reduce peak demand through installation of switches on residential poo	3.1	3.1	3.6	3.6	13.3
7 Direct Load Control - air conditioners & water heaters	Reduce peak demand and energy usage through the installation of load control devices on air conditioners and electric water heaters.	3.6	4.4	4.5	4.0	16.5
8 DLC of heat pump strip heat	Direct load control of the strip heat elements of heat pumps to reduce the winter peak.	2.3	3.5	4.3	4.1	14.1
9 *Beat the Peak*	A voluntary residential demand response program that uses technology to influence customers to reduce their consumption during periods of very high power costs or a critical shortage of generation.	3.6	4.0	4.1	4.7	16.3
Equipment						
Lighting						
10 Residential Efficient Lighting	To transform the residential lighting market by facilitating a shift in consumer purchasing decisions from market baseline efficiency to higher efficiency lighting products. Partnership with retailer.	3.3	2.2	2.8	3.1	11.3
11 High efficiency outdoor lighting	Outdoor fixtures that are on for many hours each night can consume a great deal of electricity. ENERGY STAR qualified outdoor fixtures provide exterior illumination efficiently, some with controls that turn the light off when the sun is out.	2.8	2.4	2.6	2.7	10.5

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
12 LED lighting	ENERGY STAR qualified residential LED lighting uses at least 75% less energy, lasts 25 times longer than incandescent lighting and provides optimal light color.	2.6	2.8	2.9	2.2	10.5
New Construction/Comprehensive						
13 Enhanced Touchstone Home (thermal sealing/bypass)	This has been incorporated into the company's Touchstone Energy Home program.	3.8	3.8	3.8	3.7	15.1
14 Touchstone Energy Home	Encourages new homes to be built to higher standards for thermal integrity and equipment efficiency and high efficient heat pump systems.	3.8	3.9	4.3	4.1	16.1
15 Touchstone Energy Manufactured Home	All Electric manufactured home built to Energy Star specifications.	2.8	3.8	3.8	4.2	14.6
16 Multi-family program	The Multi-Family offering provides cash rebates for making energy efficiency improvements to apartment and other multi-family	3.2	3.8	3.8	3.6	14.3
Appliances						
17 ENERGY STAR Refrigerator	Self-Explanatory	3.6	2.2	2.6	2.4	10.8
18 ENERGY STAR Room Air Conditioner	Self-Explanatory	3.1	2.3	2.5	2.3	10.1
19 ENERGY STAR Clothes Washers	Self-Explanatory	3.6	2.5	2.5	2.6	11.2
20 ENERGY STAR Freezers	Improvements in insulation and compressors mean today's freezers consume much less energy than older models. An ENERGY STAR qualified freezer uses 10% less energy than a new, non-ENERGY STAR qualified model.	3.3	2.3	2.3	2.3	10.3
21 ENERGY STAR Home electronics	Self-Explanatory	3.4	2.3	2.3	2.1	10.1
22 ENERGY STAR Windows	Self-Explanatory	3.5	2.5	2.5	2.3	10.8
23 ENERGY STAR Dishwashers	ENERGY STAR qualified dishwashers are, on average, 10% more energy efficient and 12% more water efficient than standard models.	3.4	2.3	2.3	2.4	10.5
24 ENERGY STAR Dehumidifiers	Self-Explanatory	3.2	2.2	2.5	2.0	9.9
25 Room AC exchange & recycle program	This program lets utility customers can exchange their older inefficient room air conditioners for new ENERGY STAR units. The old room ACs would be disassembled and recycled.	3.3	2.2	2.5	2.2	10.1
26 Refrigerator/Freezer Recycling	This is subsumed into 27 and 28.	3.4	2.9	2.9	2.3	11.4
27 Remove old second refrigerators	This program provides collection and disposal of old, inefficient refrigerators. Members are paid a bounty for each refrigerator turned in and taken off of the grid. The refrigerator will be turned over to a licensed recycler.	3.3	3.1	2.8	2.3	11.5

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
28 Remove old second freezers	This program provides collection and disposal of old, inefficient freezers. Members are paid a bounty for each freezer turned in and taken off of the grid. The freezer will be turned over to a licensed recycler.	3.3	3.1	2.8	2.3	11.5
29 Ceiling Fans	ENERGY STAR qualified ceiling fans with lights are over 50% more efficient than conventional fan/light units.	3.1	1.9	2.1	1.8	8.9
30 Heat pump dryer	Heat pump clothes dryers (HPCDs) can be as much as 50% more energy-efficient than conventional electric resistance clothes dryers, and therefore have the potential to save substantial amounts of electricity. While not currently available in the U.S., there are manufacturers in Europe and Japan that produce units for those markets.	1.9	2.1	2.5	2.3	8.8
31 Well water pump	Energy efficient pump technologies to save energy used for well water pumping.	2.0	2.0	2.4	2.2	8.5
32 Efficient pool pump	Installing an energy efficient Two-Speed or Variable-Speed pool pump can save up to 70% on energy costs.	2.3	2.6	3.1	2.8	10.8
HVAC Equipment						
33 Cold climate heat pump	Also called "all climate heat pump". One brand is "Arcadia". Lots of issues in the field. Could rename " advanced heat pump designs" in R&D to improve the performance of heat pumps in cold weather.	2.2	2.5	2.8	2.4	9.9
34 Heat retrofit/ early replace: resistance to heat pump	Installing heat pumps in homes with resistance heat before the end of the useful life of the current heating system	3.7	3.8	3.8	3.8	15.1
35 Inefficient heat pump to geothermal early replacement	Replacing working but inefficient air source heat pumps with geothermal heat pumps	3.0	3.2	3.6	3.3	13.0
36 SEER 10 heat pump to SEER 15 early replacement	Self-Explanatory	2.8	2.7	3.3	2.8	11.5
37 ENERGY STAR Central Air Conditioner	Self-Explanatory	3.0	2.5	3.0	2.9	11.4
38 Ductless mini-split heat pump	Heat pump retrofit for homes with non-ducted heating systems, and for additions. No Duct losses.	2.3	2.8	3.1	3.2	11.4
39 Inefficient Central Air Conditioner to SEER 15	Early replacement of working but inefficient central A.C. with high efficiency central A.C.	2.5	2.7	3.2	2.7	11.0
40 High efficiency furnace fan motors	Offer incentives for customers and contractors to choose high efficiency furnace fan motors (electronically commutated or equiv) when installing new gas or propane furnaces.	2.5	2.7	2.7	2.6	10.6
41 Dual Fuel add-on to heat pump	Adds a gas or propane furnace plus controls and shuts off the heat pump when the outdoor temperature is below 30 degrees so the gas or propane is used to heat the home.	3.2	3.8	3.8	3.8	14.4

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
42 Dual Fuel heat pump replacing electric resistance heat	Replaces electric heat with a gas or propane furnace and a new air source heat pump plus controls to switch from heat pump to fossil heat when the outdoor temperature is below 30 degrees.	3.0	3.6	4.1	3.8	14.4
Water Heaters						
43 Heat pump water heater	Heat pump water heaters use electricity to move heat from one place to another instead of generating heat directly. Therefore, they can be two to three times more energy efficient than conventional electric resistance water heaters.	**2.8**	**3.1**	**3.3**	**2.8**	11.9
44 Instantaneous water heater	Demand (tankless or instantaneous) water heaters provide hot water only as it is needed. They don't produce the standby energy losses associated with storage water heater. For homes that use 41 gallons or less of hot water daily, demand water heaters can be 24%–34% more energy efficient than conventional storage tank water heaters.	2.9	2.1	1.8	1.6	8.3
45 Solar water heater	A system that heats water for the home or the swimming pool using the sun.	**2.6**	**2.7**	**2.3**	**1.9**	9.4
Renewables						
46 Passive Solar (new construction)	The home's windows, walls,floors and natural environment (landscaping) are designed to collect, store, and distribute solar energy to heat the home in the heating system and keep the home cool in the cooling season .	**2.8**	**2.9**	**2.8**	**2.3**	10.8
47 Photovoltaics (customer sited)	Small scale photvoltaic system; particularly for remote locations, water pumping. 30% Federal tax credit.	2.8	2.5	2.4	2.1	9.8
48 Wind turbine (customer sited)	Small scale wind turbine ; particularly for remote locations and water pumping. 30% Federal tax credit.	**2.3**	**2.1**	**2.3**	**1.9**	8.5
49 Home Energy Information Program	Example: O-Power and their program of gathering data on the consumer to compare them to their electricity consumption peers. M&V results show savings of 2%.	3.3	2.8	2.6	2.7	11.4
Other						
50 Polarized Refrigerant oxidant agent	Polarized refrigerant oxidant agent (PROA) is a product that increases the efficiency of heat transfer in a refrigerant system such as an air conditioner or heat pump.	1.8	1.8	1.7	1.7	7.0
51 Time of use rates	Time of use rates have a peak, off peak, and sometimes a mid peak price each month. Residential TOU rates have been shown to lower peak period consumption by 5-15%.	**3.0**	**3.7**	**3.9**	**3.8**	14.4
52 Inclining block rates	A price structure for energy where each additional block of power used in a month, above a given level, is charged a higher price than preceding blocks.	2.3	3.1	2.9	3.1	11.3

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
53 Programmable thermostats with electric furnace heat	Install programmable t-stat to save heating and cooling energy.	3.4	3.5	3.1	3.0	13.0
Commercial		2.0				
1 Commercial HVAC	Promotes high efficiency packaged HVAC equipment.	2.9	3.7	4.0	3.2	13.8
2 Demand Response	Incentives to large customers to reduce electricity demands on the grid with short notice.	2.4	3.5	3.9	4.1	13.9
3 Commercial Building Performance	To boost the energy performance of existing euqipment and systems by offering proper tuning, opertion and maintenance services for HVAC and other equipment in existng buildings.	3.1	3.2	3.1	2.8	12.2
4 Commercial New Construction	Promotes integrated design, commissioning, and more advanced technologies in commercial construction.	3.0	2.7	3.7	3.6	13.0
5 Efficient refrigeration equipment	Promotes high efficiency refrigeration equipment.	2.7	2.6	2.9	2.7	10.8
6 Small C&I audit program	Walk-through energy audits provided for no or nominal cost to small businesses and non-profits who expressed interest in investing in energy efficient equipment.	4.1	3.5	3.6	3.3	14.5
7 Building operator certification program	Professional development program to teach facility managers, building operators, maintenance personnel, and others who monitor commercial building systems how to reduce energy and resource consumption in the facilities that they operate.	2.4	2.4	2.9	2.4	10.2
8 Geothermal heat pump	Geothermal heat pumps (GHPs) use the constant temperature of the earth as the exchange medium instead of the outside air temperature. This allows the system to reach fairly high efficiencies on the coldest of winter nights.	2.7	2.8	3.8	2.7	11.9
9 Evaporative cooling	In low-humidity areas, evaporating water into the air provides a natural and energy-efficient means of cooling. Evaporative coolers, also called swamp coolers, rely on this principle, cooling outdoor air by passing it over water-saturated pads, causing the water to evaporate into it. Evaporative coolers cost about one-half as much to install as central air conditioners and use about one-quarter as much energy.	1.9	2.3	2.5	2.5	9.1
10 Advanced ventilation	Program to provide incentives to commercial building owners to install high efficiency ventilation systems.	2.0	2.2	2.6	2.3	9.1
11 High efficiency HVAC motors	Program that gives rebates for speed control for fans and pumps and other high efficiency HVAC motor measures.	2.0	2.3	2.7	2.3	9.3
12 Early replacement inefficient unitary/split system HVAC	Remove inefficient rooftop units (below SEER 10) and replace with high efficiency unitary/split system HVAC systems.	2.1	2.9	3.2	2.6	10.8

DSM Qualitative Screening

		DSM Qualitative Screening				
		Customer	Measure	Savings	Cost	Total
13 Cool roof program	A cool roof reflects and emits the sun's heat back to the sky instead of transferring it to the building below. This helps keep the roof cooler and reduces cooling load and air conditioning needs.	2.2	2.2	2.5	2.4	9.3
14 High performance glazings	High-performance, energy-efficient window and glazing systems are now available that can dramatically cut energy consumption and pollution sources: they have lower heat loss, less air leakage, and warmer window surfaces that improve comfort and minimize condensation. These high-performance windows feature double or triple glazing, specialized transparent coatings, insulating gas sandwiched between panes, and improved frames. All of these features reduce heat transfer, thereby cutting the energy lost through windows.	2.4	2.4	2.8	2.3	10.0
15 Duct sealing	Duct losses can account for more than 30% of energy consumption for space conditioning, especially if the ducts are in an unconditioned space . Duct sealing increases efficiency and lowers energy consumption.	3.0	3.2	3.6	3.4	13.2
16 Thermal energy storage	Thermal energy storage (TES) systems cool a storage medium and then use that cold medium to cool air at a later point in time. Using thermal storage can reduce the size and initial cost of cooling systems, lower energy costs, reduce peak demand, and reduce maintenance costs.	2.0	2.7	2.8	2.4	9.9
17 Heat pump water heaters	Heat pump water heaters (HPWHs) extract heat from air (indoor, exhaust or outdoor air) and deliver it to water. Commercial heat pump water heaters are ideal in situations such as a commercial kitchen or laundry where there is a steady simultaneous need for cool air and hot	2.6	2.9	3.3	3.2	12.0
18 Drain heat recovery water heaters	Any hot water that goes down the drain carries away energy with it. That's typically 80–90% of the energy used to heat water in a home. Drain-water (or greywater) heat recovery systems capture this energy to preheat cold water entering the water heater or going to other water fixtures.	2.1	2.4	2.5	2.1	9.1
19 LED exit signs	These are now offered as part of the commercial& industrial advanced lighting program.	4.0	3.2	2.9	3.4	13.5
20 Advanced lighting program	This Commercial & Industrial Advanced Lighting program offers incentives to commercial and industrial customers to install high efficiency lamps and ballasts in their facilities.	4.2	4.2	4.3	3.9	16.6
21 Efficient cooking equipment	This is now Commercial Food Service Equipment and includes high efficiency/ENERGY STAR commercial dishwashers, fryers, griddles, hot food holding cabinets, ovens, and steam cookers.	2.9	2.7	2.8	2.7	11.0
22 Efficient clothes washers	Promotes ENERGY STAR commercial clothes washers	2.3	2.2	2.3	2.3	9.2

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
23 ENERGY STAR Vending machines	Self-Explanatory	2.8	2.5	2.7	2.4	10.4
24 Energy Management Systems	Energy management systems (EMS) are a combination of building management systems and advanced software solutions that assist in managing the building functions in a more energy efficient way and provide demand response controls when situations within the power grid demand it.	2.7	3.1	3.6	3.6	12.9
25 DLC of irrigation pumps	Reduce peak demand and energy usage through the installation of load control devices on irrigation pumps.	1.6	1.9	1.9	1.9	7.3
26 DLC of central air conditioners	Reduce peak demand and energy usage through the installation of load control devices on commercial air conditioners.	3.4	3.7	3.9	3.8	14.8
27 Energy efficient schools	Dedicating resources to work with school districts to improve the energy efficiency of their buildings,freeing up money for other improvements, and making them healthy, high-performance educational environments.	3.6	3.2	3.6	3.3	13.7
28 Farms program: fans, pumps, irrigation	This program provides incentives for on-farm energy upgrades that save electricity.	2.7	2.6	2.6	2.7	10.4
29 Time of use rates	Time of use rates have a peak, off peak, and sometimes a mid peak price each month. Residential TOU rates have been shown to lower peak period consumption by 5-15%.	2.5	3.6	3.9	4.1	14.1
30 Combined heat & power	Also known as "cogeneration", CHP is self-production of electricity on-site, with beneficial recovery of the heat byproduct from the generator. This also includes waste heat recovery to produce electricity or useful work.	2.2	2.6	2.7	2.1	9.6
31 Stand-by generation program	Other non-renewable customer sited generation that provides benefits to the customer (standby, reliability, peak shaving, power quality) and the utility (demand response, avoid grid expansion).	2.3	3.0	3.1	2.7	11.1
32 Daylighting	Daylighting is the controlled admission of natural light into a space through windows to reduce or eliminate electric lighting.	3.0	2.7	2.4	2.6	10.7
33 Solar hot water	Provides incentives for systems that use the sun's rays for water heating, pool heating, and space heating.	2.2	2.1	2.0	1.8	8.1
34 Photovoltaics	Small scale photvoltaic system converts sunlight to electricity; particularly for remote locations, water pumping. 30% Federal tax credit.	2.2	2.7	2.6	2.0	9.4
35 Wind turbine	Small scale wind turbine to generate electricity ; particularly for remote locations and water pumping. 30% Federal tax credit.	1.8	1.9	1.8	1.8	7.1

Industrial/Other

DSM Qualitative Screening

		DSM Qualitative Screening				
		Customer	Measure	Savings	Cost	Total
1 Motors	Provide incentives to encourage C&I customers to upgrade in-service motor stock to premium efficiency motors that meet or exceed the National Electrical Manufacturers' Association (NEMA) Premium efficiency ratings.	2.8	2.9	3.1	2.8	11.5
2 Variable speed drives	This program promotes variable speed drives and drive systems.	2.6	3.3	3.3	2.9	12.0
3 Demand Response	This program provides incentives to large customers to reduce their electricity demands on the grid, with short notice, for short periods of time, to reduce the utility peak load and avoid the purchase of expensive power.	2.7	3.6	4.1	4.1	14.4
4 Compressed air	This program reduces electricity consumption through a comprehensive approach to efficient production and delivery of compressed air in industrial facilities. The program includes assessment, training, and financial incentives (for capital-intensive improvements).	3.0	3.4	3.7	3.2	13.3
5 Industrial process	This program provides financial and engineering resources to industrial customers to save electricity in their industrial processes.	3.0	3.0	3.2	2.9	12.1
6 Process cooling	This program provides incentives for industrial customers to implement measures that save process cooling equipment and systems.	2.0	1.9	2.0	2.0	7.9
7 Refrigerated Warehouse	This program promotes equipment upgrades that improve the electric energy efficiency of cold storage warehouses.	2.1	1.7	2.0	1.6	7.4
8 High efficiency transformers	Provide incentives to help commercial and industrial customers incorporate National Electrical Manufacturers' Association (NEMA) premium efficiency transformers into their operations.	2.0	1.8	2.0	1.9	7.6
9 Automotive and transportation sector equipment	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the automotive and transportation sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	2.1	1.7	1.7	1.7	7.3
10 Livestock, equine, poultry and meat processing sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the livestock sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	2.0	1.7	1.9	1.9	7.4
11 Chemicals sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the chemicals sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	1.7	1.7	1.7	1.7	6.9

DSM Qualitative Screening

DSM Qualitative Screening

		Customer	Measure	Savings	Cost	Total
12 Machinery/machine tools sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the machinery/machine tools sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	1.7	1.9	1.7	1.9	7.1
13 Aluminum sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the aluminum sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	1.7	1.7	1.9	1.9	7.1
14 Plastics sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the plastics sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	2.1	2.1	2.1	2.1	8.6
15 Computer and electronics sector	Industry specific energy efficiency and peak load reduction program which identifies savings opportunities unique to the computer and electronics sector. The program would procure the services of engineers who are experts in the processes and equipment used in this industry.	1.6	1.7	1.7	1.7	6.7
16 Combined heat and power	Also known as "cogeneration", CHP is self-production of electricity on-site, with beneficial recovery of the heat byproduct from the generator. This also includes waste heat recovery to produce electricity or useful work.	1.9	2.3	2.6	2.0	8.8
17 Other onsite generation (conventional)	Other non-renewable customer sited generation that provides benefits to the customer (standby, reliability, peak shaving, power quality) and the utility (demand response,avoid grid expansion).	2.4	2.5	2.8	2.4	10.0
18 Photovoltaics	Customer sited PV system; particularly for remote locations, water pump	1.9	2.0	1.9	1.9	7.6
19 Wind turbine	Customer sited wind turbine ; particularly for remote locations and water pumping. 30% Federal tax credit.	1.6	1.7	1.6	1.3	6.1
20 LED Traffic signals		2.3	1.9	2.3	2.1	8.5
21 Water/Wastewater Treatment facilities	A package of energy efficiency and load management measures designed specifically for water/wastewater treatment facilities.	1.9	2.1	2.1	2.1	8.3

DSM Qualitative Screening

		DSM Qualitative Screening				
		Customer	Measure	Savings	Cost	Total
22 Conservation Voltage Reduction	A range of electric utility measures designed to modify the voltage delivered to end-use customers to a range lower than or tighter than the American National Standards Institute (ANSI) standard C84.1, in order to conserve energy and/or shave peak loads.	2.3	3.0	3.0	3.0	11.3
23 Emergency Generator demand response	Enrolls existing standby generators and gives the customer an incentive for shedding load by dispatching those generators on peak days for the utility.	3.0	3.3	3.4	3.6	13.3
*Electric Thermal Storage - Residential	Demand Response Program					15.9

* Individual criteria scores for this measure were not available at time of response. This is an existing program and it received a high composite score indicating positive acceptance.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 40
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 40. Refer to p. 8 of the DSM Report found in Technical Appendix Volume 2. Identify in dollars per kWh the following costs used in the DSMore modeling:

Request 40a. Marginal energy cost;

Response 40a. The average marginal energy cost used was $0.036 per kWh in 2012. The compound annual growth rate in the marginal energy cost for the period 2012-2026 is approximately 4%.

Request 40b. Marginal generation capacity cost;

Response 40b. EKPC uses a hybrid approach to develop the marginal generation capacity cost where early years are based on the PJM RTO and later years are based on avoidable units in the expansion plan. These values were smoothed for modeling in DSMore. The first year (2012) value used was $83.18 per kW-year. The compound annual growth rate in the marginal generation capacity cost for the period 2012-2026 is approximately 4.9%.

Request 40c. Marginal transmission and distribution capacity cost;

Response 40c. The marginal transmission and distribution capacity cost value used was $19.44 per kW-year in 2012. The compound annual growth rate in the marginal energy cost for the period 2012-2026 is approximately 2.3%.

Request 40d. Fossil fuel cost;

Response 40d. The fossil fuel cost value used was $2.50 per gallon for propane in 2012. The source for that value is the EIA. The compound annual growth rate in the fossil fuel cost for the period 2012-2026 is approximately1%.

Request 40e. Environmental capacity cost.

Response 40e. Environmental capacity costs are not modeled directly in DSMore. This is one factor used in producing the marginal generation capacity cost.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 41
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 41. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. Identify the per ton cost for SO_2 and NOx allowances used in the DSMore modeling.

Response 41. The DSMore inputs provided by the production cost model did not use costs for emission allowances. Due to the expected Cross-State Air Pollution Rules (CSAPR) regulations, the production model was used with the hard limits put into place by CSAPR. Therefore, no specific dollar amount was used for SO_2 or NOx; dispatch costs were modified to reflect limited operations to remain under the allowance caps.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 42
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 42. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. With regards to the "capital investments for compliance" referenced therein:

a. Explain how that cost was accounted for in the marginal capacity costs.

b. Identify the amount assumed for such investments and the basis for such amount.

Response 42a-b. There are no planned capital investments during the IRP 2012 reporting period.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 43
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 43. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. Explain the basis for the claim that $0/MWh is the "likely value placed on carbon dioxide over the 15 year planning period," and produce any documents supporting that claim.

Response 43. At the time the 2009 IRP was done, a value was set at $40/ton for use in the Societal Cost test as an estimate of what future allowance prices could be in a marketplace with a cap and trade program for carbon. Given there has been no legislation passed dealing with carbon, the cost of complying with environmental regulation is reflected in the avoided capacity and energy costs, and therefore, for the 2012 IRP the value for the Societal Cost test was set at $0/MWh.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 44
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 44. Identify and produce any DSM potential studies performed by or for EKPC in the last five years, including attendant workbooks or calculations. Please describe if or how these studies are incorporated into the current case. If they are not, why not?

Response 44. In 2010, EPRI conducted a DSM technical potential study for the residential class of EKPC. EKPC did not make direct use of that study in the 2012 IRP.

The EPRI report gave high level results: savings by end use. However, it did not provide the underlying data, so it was of limited use in performing the detailed DSM screening for the IRP. EKPC was only able to use it as an overall sanity check. Overall, EKPC's plan for the residential class matched up very well with its total savings potential.

There were also some things in the EPRI report that EKPC found difficult to explain. There were several discrepancies between the results EPRI derived and EKPC's estimates of potential. Without the underlying data, EKPC was not able to review EPRI's assumptions and how those differed from EKPC's.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 45
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 45. For each DSM program currently offered by EKPC, identify the:

Request 45a-c.
a. Past and projected future annual budget,
b. Annual actual spending since inception,
c. Annual MW or MWh reductions achieved through such programs since their inception,

Response 45a-c. EKPC declines to respond as these requests are not relevant to the IRP.

Request 45d. Annual MW or MWh reductions projected to be achieved through such programs for each year through 2026,

Response 45d. The annual MW or MWh reductions projected to be achieved through such programs for each year through 2026 are found in the Technical Appendix, Demand Side Management, Volume 2, Exhibit DSM-7, pages 1 of 18 through 7 of 18.

Request 45e-f. e. Expected life of the programs,
f. Penetration of these programs,

Response 45e-f. The expected life and penetration of these programs are found in the Technical Appendix, Demand Side Management, Volume 2, Exhibit DSM-6, pages 9 of 30 through 19 of 30.

Request 45g. Score of the program on each of the cost-benefit tests set out in the California Standard Practice Manual.

Response 45g. The cost-benefit information is found in the Technical Appendix, Demand Side Management, Volume 2, Exhibit DSM-6, Pages 20 of 30 through 30 of 30.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 46
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 46. For each DSM program evaluated in the DSM Report found in Technical Appendix Volume 2 identify the following assumptions used in evaluating the program:

Request 46a. Annual cost,

Response 46a. The projected annual program costs for each of the programs in the plan can be found as the response to Request 12 of the Commission Staff's First Request for Information, filed by EKPC on June 25, 2012.

Request 46b. Annual MW or MWh reductions projected to be achieved through such programs for each year through 2026,

Response 46b. The annual MW and MWh reductions projected to be achieved through each program in the plan can be found under Section 8(3)(e)(3) of the Integrated Resource Plan, pages 81 through 99. The same data are repeated in Technical Appendix Volume 2 Exhibit 7, pages 1 through 18.

Request 46c. Expected life of the program,

Response 46c. The expected life for each DSM program in the plan can be found in Tables 8.(3)(e)(2)-1 and 8.(3)(e)(2)-2 in the Integrated Resource Plan, pages 80 and 81.

Request 46d. Penetration of these programs

Response 46d. The annual participation projections for each DSM program in the plan can be found under Section 8(3)(e)(3) of the Integrated Resource Plan, pages 81 through 99. Information about the penetration assumptions for each DSM program in the plan can be found in Technical Appendix Volume 2, Exhibit DSM-4, pages 1 through 21 (for new programs), and Exhibit DSM-6 pages 9 through 19 (for existing programs). These are the assumptions sheets for each program; penetration information was included in the descriptions for the "Participation" category, which is found in the second to last row on each assumptions sheet.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 47
RESPONSIBLE PERSON: **Julie J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 47. Identify whether any sensitivity analyses were performed by or for the Companies with regards to any of the following factors. For each sensitivity analysis that was performed, provide the results of that analysis, along with any workpaper, source document, and, in machine readable or txt format, input and output files used in or developed for such analysis. For each factor for which no sensitivity analysis was performed, explain why no such analysis was performed:

a. Total energy sales,
b. Peak demand,
c. Load forecast,
d. Natural gas prices,
e. Coal prices,
f. CO_2 prices,
g. Natural gas combined cycle plant construction costs,
h. Cost of renewable energy sources,
1. Demand growth reductions through DSM programs,
J. Forward market prices of energy or capacity.

Response 47. EKPC performed no sensitivity analyses.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 48
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 48. Produce a copy of any forecast or projection of future CO_2 costs, taxes, or emissions allowances prices that have been prepared by or for EKPC.

Response 48. No projections were produced or developed.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 49
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 49. For each of the following, identify the price for each year covered by the IRP that you assumed in the IRP:

Request 49a-b. a. Coal prices,
b. Natural gas prices,

Response 49a-b. Please see pages 63 through 72 of the IRP.

Request 49c. c. CO_2 prices,

Response 49c. No projections were developed.

Response 49d-e. d. SO_2 allowances,
e. NOx allowances.

Response 49d-e. The EKPC system was modeled assuming CSAPR was in place and emission caps for SO_2 and NOx were assumed. Therefore, EKPC's dispatch costs reflect the cost to run units in a manner to operate within the limits, not by buying or selling allowances. No emission prices were modeled.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 50
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 50. For each of the prices identified in request 49, state whether the same prices were used in the 2010 Load Forecast, the 2011 Load Forecast, and the DSM Report as in the IRP. If not, identify what prices were used and explain why the prices are different.

Response 50. Fuel and emission prices are not explicitly modeled in the load forecast process. The retail rate to the consumer is modeled, which includes embedded assumptions about fuel prices. EKPC would not have used the same fuel data in its 2012 analysis that was used in 2010 and 2011. The DSM analysis was completed in 2012 and does utilize similar fuel assumptions.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 51
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 51. Produce any assessment of future natural gas prices and supplies prepared by or for EKPC.

Response 51. See pages 67 through 71 of the IRP.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 52
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 52. Produce any assessment of future coal prices and supplies prepared by or for EKPC.

Response 52. See pages 63 through 67 of the IRP.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 53
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 53. Produce any assessment of future CO_2 prices prepared by or for EKPC.

Response 53. See the response to Request 48.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
FIRST REQUEST FOR INFORMATION RESPONSE

MOVANTS' INITIAL REQUESTS FOR INFORMATION DATED 06/08/12

REQUEST 54
RESPONSIBLE PERSON: **Gary G. Stansberry**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 54. Identify the net present value results of each modeling analysis that you performed as part of this planning process.

Response 54. The net present value of the modeling analysis is included on page 187 of the IRP.