June 25, 2012

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

Re: PSC Case No. 2012-00149

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case an original and ten redacted copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the Commission Staff's First Request for Information, dated June 8, 2012. Also enclosed are an original and ten copies of EKPC's Petition for Confidential Treatment of Information. One copy of the designated confidential portions of the responses is enclosed in a sealed envelope.

Very truly yours,

Mark David Goss

CC: Parties of Record

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**

PETITION FOR CONFIDENTIAL TREATMENT OF INFORMATION

Comes now the petitioner, East Kentucky Power Cooperative, Inc. ("EKPC") and, as grounds for this Petition for Confidential Treatment of Information (the "Petition"), states as follows:

1. This Petition is filed in conjunction with the filing of EKPC's responses to the Commission Staff's First Request for Information in this case, and relates to confidential information contained in the response to Requests 13 and 22 that is entitled to protection pursuant to 807 KAR 5:001 Section 7 and KRS §61.878 (1)(c) 1, and related sections.

2. The information designated as confidential in the response to Requests 13 and 22 includes interest rates (Request 13), projected cost of capital borrowing, capital costs of potential generation facilities, projected environmental compliance costs, and costs to member systems with associated sensitivity projections (Request 22). Disclosure of this information to utilities, independent power producers and power marketers that compete with EKPC for sales in the bulk power market, would allow such competitors to determine EKPC's power production costs for specific periods of time under various

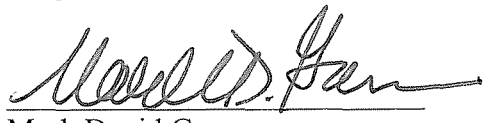
operating conditions and to use such information to potentially underbid EKPC in transactions for the sale of surplus bulk power, which would provide an unfair commercial advantage to competitors of EKPC.

3. Disclosure of confidential information relating to the estimated costs of future generation projects and environmental compliance costs to potential bidders in future EKPC requests for proposals for generating capacity, could facilitate manipulation of bids, resulting in less competitive proposals and potentially higher future generation costs for EKPC. Such a situation would create an unfair commercial advantage to competitors of EKPC for the reasons stated and could artificially increase power costs to EKPC's member systems.

4. Along with this Petition, EKPC has enclosed one copy of confidential sections of its response to Requests 13 and 22, with the confidential information identified by highlighting or other designation, and 10 copies with the confidential information redacted. The identified confidential information is not known outside of EKPC and is distributed within EKPC only to persons with a need to use it for business purposes. It is entitled to confidential treatment pursuant to 807 KAR 5:001 Section 7 and KRS §61.878(1)(c) 1, for the reasons stated hereinabove, as information which would permit an unfair commercial advantage to competitors of EKPC if disclosed. The subject information is also entitled to protection pursuant to KRS §61.878(1)(c) 2 c, as records generally recognized as confidential or proprietary which are confidentially disclosed to an agency in conjunction with the regulation of a commercial enterprise.

WHEREFORE, EKPC respectfully requests the Public Service Commission to grant confidential treatment to the identified information and deny public disclosure of said information.

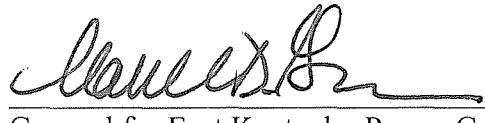
Respectfully submitted,



Mark David Goss
Goss Samford, PLLC
112 Windridge Drive
Nicholasville, KY 40356
(859) 351-2776 – Telephone
Counsel for East Kentucky Power Cooperative, Inc.

CERTIFICATE OF SERVICE

This is to certify that an original and 10 copies of the foregoing Petition for Confidential Treatment of Information in the above-styled case were hand delivered to the office of the Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40601 this 25th day of June, 2012. Further, this is to certify that copies of the foregoing Petition for Confidential Treatment of Information in the above-styled case were transmitted by first-class U.S. mail to: Hon. Jennifer B. Hans, Executive Director, Office of Rate Intervention, Office of the Attorney General, 1024 Capital Center Drive, Suite 200, Frankfort, Kentucky 40601-8204; Hon. Michael L. Kurtz, Boehm, Kurtz and Lowry, 36 East Seventh Street, Suite 1510, Cincinnati, Ohio 45202; Sierra Club Cumberland Chapter, P.O. Box 1268, Lexington, Kentucky 40588; Joe Childers, Joe F. Childers & Associates, 300 Lexington Building, 201 West Short Street, Lexington, Kentucky 40507 and Sonia McElroy, 412 Lee Port Road, Milton, Kentucky 40045 pursuant to 807 KAR 5:001, Section 7(2)(c).



Counsel for East Kentucky Power Cooperative, Inc.

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 COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED JUNE 8, 2012

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2012-00149

PUBLIC SERVICE COMMISSION'S FIRST DATA REQUEST DATED 06/15/12

East Kentucky Power Cooperative, Inc. ("EKPC") hereby submits responses to the information requests of Public Service Commission Staff's ("PSC") in this case dated June 8, 2012. Each response with its associated supportive reference materials is individually tabbed.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

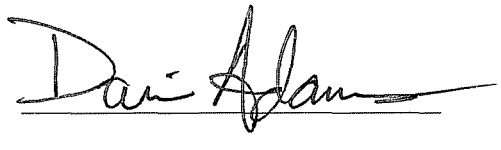
In the Matter of:

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

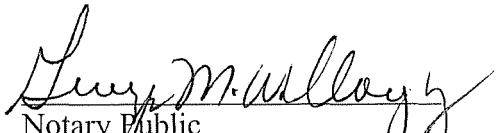
CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Darrin Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's First Request 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 25th day of June, 2012.



Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

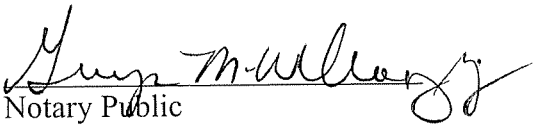
2012 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	))	**CASE NO. 2012-00149**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

David Crews, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's First Request 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 25th day of June, 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 the Public Service Commission Staff's First Request 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 25th day of June, 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 the Public Service Commission Staff's First Request 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 25th day of June, 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 the Public Service Commission Staff's First Request 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 25th day of June, 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 the Public Service Commission Staff's First Request 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 22 day of June, 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 the Public Service Commission Staff's First Request 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 26th day of June, 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 the Public Service Commission Staff's First Request 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 25th day of June, 2012.

Notary Public

MY COMMISSION EXPIRES NOVEMBER 30, 2013
NOTARY ID #409352

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 1
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 1. Refer to page 4, Section 1.3, of EKPC's 2012 Integrated Resource Plan ("IRP") and the Technical Appendix ("TA"), Volume 2, pages 13 and 14, of the IRP. The last sentence on page 4 of the IRP states, "EKPC believes an aggressive but reasonable DSM goal would be to pursue approximately 50 MW over a five year period." Pages 13 and 14 of the TA, Volume 2, contain the projected load impacts of existing and new demand-side management ("DSM") programs, respectively.

Request 1a. Explain what EKPC means by "[a]ggressive but reasonable ..." in the statement on page 4 of the IRP.

Response 1a. EKPC and its Owner-Members have offered DSM programs since the early 1980s. The impacts of the non-interruptible DSM programs have averaged approximately 4 MW per year for the past decade. Based on historical knowledge of our DSM Program performance, EKPC set an achievable (reasonable), but larger than past performance (aggressive), goal of 50 MW in 5 years (2013-2017).

Request 1b. Explain why the statement on page 4 of the IRP refers to 50 MW when the incremental load impacts listed on pages 13 and 14 of the TA, Volume 2 of the

IRP, over the period 2012-2017, are reductions in excess of 50 KW for existing programs and reductions in excess of 100 MW for new programs.

Response 1b. Per the 2009 IRP recommendations from the PSC, the DSM Steering Committee, described on page 5 of the IRP, expanded the list of potential DSM programs that passed the Qualitative Screening process and were evaluated per the Quantitative Screening - the California Tests. The theoretical IRP modeling of all Existing and New Programs assumes each program is fully mature as compared to DSM Program performance reported by other utilities. Many EKPC Existing DSM Programs are not currently performing at that theoretical maturity level. EKPC and its Member-Owners recently increased the Button-Up Program incentive, and are reviewing rebate levels for other existing DSM Programs. The potential New Programs listed are numerous and again modeled as mature programs. The resulting theoretical IRP modeling of DSM impacts for Existing and New Programs cannot be considered reasonable to achieve in a short 5 year period with programs that are not currently performing at a mature level. Therefore, EKPC established the goal of 50 MW in 5 years.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 2
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 2. Refer to page 5 of the IRP, which continues the discussion of Section 1.3, DSM. The next-to-last sentence indicates that the final program details for new DSM programs will not be complete until late 2012. Upon completion of those details, what action(s) will EKPC expect to take regarding implementation of the programs that have been found to be financially feasible?

Response 2. The DSM Steering Committee is working to determine the adjustments needed to improve performance of Existing Programs and the potential New Programs that will be implemented in 2013. EKPC and the Owner-Members plan to file some DSM Program tariff changes with the PSC this fall to be implemented January 2013.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 3
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 3. Refer to page 6, Section 1.4, of the IRP. The first paragraph discusses EKPC's intent to keep its plans flexible and continue to monitor load and economic power supply alternatives, including joining a Regional Transmission Organization ("RTO"). On May 3, 2012, EKPC filed an application with the Commission requesting approval to transfer certain transmission assets to the PJM Interconnection, L.L.C. ("PJM"). Provide a general, high-level discussion of what impacts, assuming its request is approved by the Commission, EKPC joining PJM would have on its 2012 IRP.

Response 3. The potential for PJM membership was a consideration in the expansion planning process for the 2012 IRP. EKPC's IRP expansion utilizes a lot of seasonal purchases to cover the winter peak load plus 12% reserve margin. (Please note that, if approved to join PJM, EKPC's reserve margin will be significantly reduced.) EKPC would have typically shown a need for additional peaking capacity, i.e. combustion turbines, instead of this high level of off system purchases. However, most of these purchases can be mitigated with PJM membership. Therefore, EKPC represented purchases instead of indicating a need to build additional capacity. EKPC's cost to serve its members' load is expected to be lower in PJM than shown in the IRP due to synergies for economic dispatch offered by the larger PJM system.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 4
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 4. Refer to page 9, Section 1.7, of the IRP.

Request 4a. The recommendations of the EKPC DSM and Renewable Energy Collaborative ("Collaborative") were provided to EKPC management on January 31, 2012. Explain what management's response to the recommendations has been to date.

Response 4a. The Collaborative recommendations listed on page 9 of the IRP were presented to EKPC's Executive Staff by EKPC's Senior Vice President of Power Supply. All recommendations were well-received; EKPC staff was instructed to proceed with implementation.

Request 4b. If they have been developed, provide the timelines for pursuing and/or implementing each of the recommendations of the Collaborative.

Response 4b. While no specific timelines have been established, EKPC is proceeding to implement the recommendations. EKPC staff is developing a new Measurement &Verification (M&V) plan. EKPC's consultant that assists with developing the models for the California Tests has completed a few DSM Program evaluations specifically for Owner-Members and will continued to provide that service as

needed. EKPC has allocated internal resources to research and identify DSM Program best practices that could be incorporated in future DSM programs.

Request 4c. If they have been developed, identify and describe in general the educational, marketing, and training programs planned for EKPC's member systems.

Response 4c. The EKPC Marketing department is developing a new marketing campaign for the 2013-2017 timeframe. EKPC will roll out that campaign to the Owner-Members during the fall of 2012. Additional training opportunities for the Owner-Member Energy Advisors are also planned for the fall. The training will focus on building science and HVAC equipment.

Request 4d. Explain whether it is anticipated that additional personnel will be required by EKPC and/or its member systems to implement the new DSM programs. If so, provide the estimated number of new personnel required for EKPC and the member systems as well as brief job descriptions for the new personnel.

Response 4d. EKPC utilizes an expert consultant for the qualitative and quantitative analytic services and has expanded the consultant's availability to the Owner-Members. An existing internal resource was added in the last year to help serve as an expert DSM resource for the Owner-Members. An additional Energy Advisor/building science expert at EKPC is anticipated when program participation levels increase.

Request 4e. Describe what, if any, standardized processes for gathering data, investigation, and reporting on energy and demand impacts are currently being used by EKPC and its member cooperatives.

Response 4e. For energy efficiency type DSM programs, deemed savings are utilized based on industry norms or previous research work by EKPC, EPRI or CRN. Much of the Button-up savings is based on calculations from the REM RATE software program that is widely utilized in the building science industry. The cooperatives individually meter the ETS units because the customer is usually billed via a special energy rate. EKPC tracks the number of participants for each DSM Program and applies a deemed savings for each.

The $impleSaver Direct Load Control program has an M&V program with a statistically significant amount of meters installed on participating homes. A contractor performs the data collections, analytics, and annual report for this program. Also, the DLC switches employ 2-way communication technology providing constant verification that the switch is connected to the air conditioner or water heater and is communicating properly with the utility.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 5
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 5. Refer to page 10 of the 2012 IRP, the table of existing DSM programs which includes a Residential Lighting program. Is this program included in EKPC's tariff? If yes, provide the location of this program in the tariff. If no, explain.

Response 5. No. The Residential Lighting program as listed on page 10 of the TA-Volume 2 are the light bulbs that are provided at the Owner-Member's annual meetings.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 6
RESPONSIBLE PERSON: **Darrin Adams**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 6. Refer to the IRP, page 28, which continues the discussion of transmission projects that begins on page 26. The first sentence of the first paragraph on the page refers to a planned interconnection that will provide a stronger source in a specific area of need on the EKPC system. Provide the location of that interconnection and the name of the system to which EKPC will be interconnected.

Response 6. The interconnection referred to is an interconnection in Anderson County, KY, between EKPC's new South Anderson 69 kV switching station, which is to be completed in December 2013, and Kentucky Utilities' existing Bonds Mill 69 kV switching station.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 7
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 7. Refer to the tables on pages 40, 42, 44, and 46 of the IRP, all of which include a column with a heading "Weather Normalized, etc." Provide the number of years in the period EKPC uses for normal weather and the last year of that period.

Response 7. EKPC uses NOAA's official 30-year climate normals, which are freely available to the public at http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html.

EKPC uses the 1971-2000 Climate Normals throughout its 2012 IRP, because the 1981-2010 Climate Normals were released in mid-2011, after the load forecast used in the 2012 IRP was developed.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 8
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 8. Refer to revised page 46 of the IRP, which was filed on May 9, 2012. EKPC's Office Use is shown as 2,916 MWh for 2011 which is roughly one-third of the usage shown for all other years. Explain the reduced usage in 2011.

Response 8. The figure of 2,916 MWh was an error, based on data only from January to March 2011. The correct figure, based on data from January to December 2011, is 10,146 MWh. The increased office use in 2011 compared to prior years is attributable to construction of the Air Quality Control System ("AQCS") at Cooper Unit 2 for which a CPCN was granted in Case No. 2008-00472.

Please see page 2 of this response for a revised page 46 of the IRP.

Historical and Projected Annual Energy Requirements, Losses, and Generation

Year	Total Retail Sales (MWh)	Office Use (MWh)	Distribution Loss (%)	EKPC Sales to Members (MWh)	EKPC Office Use (MWh)	Transmission Loss (%)	Additional DSM Impact (MWh)	Actual Net Total Requirements (MWh)	Weather Normalized Net Total Requirements (MWh)	Generation (MWh)
2007	12,034,113	10,291	4.3	12,582,260	7,491	3.9		13,080,146	12,913,199	11,493,588
2008	12,069,760	10,431	4.5	12,646,146	7,932	2.3		12,947,087	12,857,903	10,670,423
2009	11,465,842	10,173	4.2	11,981,909	8,247	3.2		12,371,602	12,449,887	10,925,246
2010	12,233,507	10,401	4.4	12,811,906	8,654	4.2		13,354,642	12,935,290	12,570,249
2011	11,809,733	9,742	3.8	12,289,071	10,146	3.1		12,674,890	12,279,621	12,444,859
2012	11,872,860	10,225	4.3	12,411,089	8,417	3.3	104,246		12,741,880	11,311,662
2013	11,970,858	10,225	4.3	12,514,003	8,436	3.3	183,221		12,769,351	11,597,391
2014	12,155,267	10,225	4.3	12,707,552	8,478	3.3	261,954		12,890,815	11,791,378
2015	12,430,603	10,225	4.3	12,996,168	8,521	3.3	337,848		13,113,431	12,700,239
2016	12,710,147	10,225	4.3	13,289,249	8,563	3.3	413,781		13,340,625	13,647,239
2017	12,895,819	10,225	4.3	13,484,165	8,606	3.3	488,043		13,467,975	13,768,550
2018	13,139,229	10,225	4.3	13,739,603	8,649	3.3	562,174		13,658,044	13,518,573
2019	13,383,083	10,225	4.3	13,995,516	8,693	3.3	626,598		13,858,310	13,849,344
2020	13,604,266	10,225	4.3	14,227,640	8,736	3.3	675,594		14,049,405	13,462,571
2021	13,860,542	10,225	4.3	14,496,531	8,780	3.3	724,786		14,278,325	13,462,295
2022	14,083,827	10,225	4.3	14,730,872	8,824	3.3	744,344		14,501,151	13,666,705
2023	14,330,676	10,225	4.3	14,989,944	8,868	3.3	765,085		14,748,368	14,348,144
2024	14,570,843	10,225	4.3	15,242,014	8,912	3.3	782,894		14,991,277	14,386,256
2025	14,806,295	10,225	4.3	15,489,097	8,957	3.3	800,601		15,229,132	14,376,234
2026	15,046,024	10,225	4.3	15,740,706	9,001	3.3	818,324		15,471,651	14,457,969

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 9
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 9. Refer to page 50 of the IRP. Explain why, for existing DSM programs, there is a projected decrease in the Impact on Energy Requirements in 2021-2026.

Response 9. The projected decrease in the Impact on Energy Requirements in 2021-2026 comes as a result of declines in participation and savings from the Residential Efficient Lighting Program. The Federal EISA efficiency standard for residential lamps reaches the required efficiency level of 45 lumens per watt in 2020. Given current technology choices, only compact fluorescent (CFL) and LED lamps will meet this standard. These two technologies provide similar levels of efficiency, about 65 lumens per watt. Since these will effectively become the baseline for the residential lighting market, there is no known technology that would deliver significantly higher efficiency. Therefore, this program is modeled to have no new participants after 2021.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 10
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 10. Refer to Table 8.(3)(e)(1)-2 on page 79 of the IRP, specifically, the programs identified by the footnotes to the table. Explain why EKPC did not include the programs referenced in these footnotes in its marketing plans for 2009-2011.

Response 10. Because of budget limitations in the 2009-2011 timeframe, EKPC focused its DSM efforts on existing core programs such as the button-up program.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 11
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 11. Refer to the bottom of page 92 of the IRP, the table for the Programmable Thermostat Program. Explain why the impact on the winter peak is zero.

Response 11. For the Programmable Thermostat Program, the impact on the winter peak is zero because of the manner with which the control strategy of the thermostat interacts with the heating system.

Programmable thermostats save energy in the heating season by setting the temperature setting a few degrees lower at night time and during unoccupied hours. However, since the home is colder in the early morning, it requires more energy and kW demand in the morning hours to bring the temperature of the home back up to comfortable levels. This "pickup" effect has been demonstrated to actually increase the winter morning peak demand during the utility coincident peak hours for electrically heated homes in comparison to similar homes without programmable thermostats.

To address this effect, thermostat manufacturers have developed adaptive recovery thermostats for electric heat. These thermostats raise the temperature slowly, in small increments, in order to reduce or eliminate the spike in morning space heat demand.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 12
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 12. Refer to Table 8.(3)(e)(4) on pages 100 and 101 of the IRP, which shows DSM program costs for both existing and new DSM programs.

Request 12a. Confirm that these costs are the present value, in 2012 dollars, of the projected costs for the period covered by the 2012 IRP.

Response 12a. Yes, these are the present value in 2012 dollars of the projected costs for the period covered by the 2012 IRP.

Request 12b. If the answer to part a. of this request is affirmative, provide the projected program costs, by year, for the period 2012-2026.

Response 12b. Projected program costs by year for existing DSM programs are found on pages 2 – 12 of this response and new DSM programs on pages 13 - 33 of this response.

Button-Up Weatherization Program
Residential
3a

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 289,300	$ 4,300	$ 550,000	$ 1,598,850
2013	$ 398,208	$ 4,429	$ 757,050	$ 2,200,744
2014	$ 410,155	$ 4,562	$ 779,762	$ 2,266,767
2015	$ 422,459	$ 4,699	$ 803,154	$ 2,334,770
2016	$ 435,133	$ 4,840	$ 827,249	$ 2,404,813
2017	$ 448,187	$ 4,985	$ 852,066	$ 2,476,957
2018	$ 461,633	$ 5,134	$ 877,628	$ 2,551,266
2019	$ 475,482	$ 5,288	$ 903,957	$ 2,627,804
2020	$ 489,746	$ 5,447	$ 931,076	$ 2,706,638
2021	$ 504,438	$ 5,611	$ 959,008	$ 2,787,837
2022	$ 519,572	$ 5,779	$ 987,779	$ 2,871,472
2023	$ 535,159	$ 5,952	$ 1,017,412	$ 2,957,616
2024	$ 551,213	$ 6,131	$ 1,047,934	$ 3,046,345
2025	$ 567,750	$ 6,315	$ 1,079,372	$ 3,137,735
2026	$ 584,782	$ 6,504	$ 1,111,753	$ 3,231,867

Button-Up Weatherization Program with Air Sealing
Residential
3b

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 37,040	$ 4,500	$ 56,000	$ 159,480
2013	$ 51,027	$ 4,635	$ 77,147	$ 219,704
2014	$ 52,558	$ 4,774	$ 79,461	$ 226,295
2015	$ 54,135	$ 4,917	$ 81,845	$ 233,084
2016	$ 55,759	$ 5,065	$ 84,301	$ 240,076
2017	$ 57,432	$ 5,217	$ 86,830	$ 247,278
2018	$ 59,155	$ 5,373	$ 89,435	$ 254,697
2019	$ 60,929	$ 5,534	$ 92,118	$ 262,338
2020	$ 62,757	$ 5,700	$ 94,881	$ 270,208
2021	$ 64,640	$ 5,871	$ 97,728	$ 278,314
2022	$ 66,579	$ 6,048	$ 100,659	$ 286,663
2023	$ 68,576	$ 6,229	$ 103,679	$ 295,263
2024	$ 70,634	$ 6,416	$ 106,789	$ 304,121
2025	$ 72,753	$ 6,608	$ 109,993	$ 313,245
2026	$ 74,935	$ 6,807	$ 113,293	$ 322,642

Heat Pump Retrofit
Residential

35 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 70,800	$ 2,877	$ 300,000	$ 1,840,000
2013	$ 97,171	$ 2,963	$ 411,743	$ 2,525,354
2014	$ 100,086	$ 3,052	$ 424,095	$ 2,601,115
2015	$ 103,089	$ 3,144	$ 436,818	$ 2,679,148
2016	$ 106,182	$ 3,238	$ 449,922	$ 2,759,523
2017	$ 109,367	$ 3,335	$ 463,420	$ 2,842,308
2018	$ 112,648	$ 3,435	$ 477,322	$ 2,927,577
2019	$ 116,028	$ 3,538	$ 491,642	$ 3,015,405
2020	$ 119,508	$ 3,644	$ 506,391	$ 3,105,867
2021	$ 123,094	$ 3,754	$ 521,583	$ 3,199,043
2022	$ -	$ -	$ -	$ -
2023	$ -	$ -	$ -	$ -
2024	$ -	$ -	$ -	$ -
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -

Electric Thermal Storage
Residential
11

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 25,760	$ 172,320	$ 6,300	$ 26,600
2013	$ 39,799	$ 257,737	$ 16,223	$ 41,097
2014	$ 40,993	$ 265,469	$ 26,735	$ 42,330
2015	$ 42,223	$ 273,433	$ 37,863	$ 43,600
2016	$ 43,490	$ 281,636	$ 49,635	$ 44,908
2017	$ 44,794	$ 290,085	$ 62,079	$ 46,255
2018	$ 46,138	$ 298,788	$ 75,225	$ 47,643
2019	$ 47,522	$ 307,751	$ 89,104	$ 49,072
2020	$ 48,948	$ 316,984	$ 103,748	$ 50,544
2021	$ 50,416	$ 326,493	$ 119,191	$ 52,060
2022	$ 51,929	$ 336,288	$ 135,467	$ 53,622
2023	$ 53,487	$ 346,377	$ 152,612	$ 55,231
2024	$ 55,091	$ 356,768	$ 170,664	$ 56,888
2025	$ 56,744	$ 367,471	$ 189,661	$ 58,594
2026	$ 58,446	$ 378,495	$ 209,645	$ 60,352

Direct Load Control of Residential Air Conditioners and Water Heaters

Residential 8 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ 2,573,600	$ 165,100	$ -
2013	$ -	$ 2,674,600	$ 340,106	$ -
2014	$ -	$ 2,779,360	$ 525,464	$ -
2015	$ -	$ 2,887,990	$ 721,637	$ -
2016	$ -	$ 3,000,640	$ 929,108	$ -
2017	$ -	$ 3,117,450	$ 1,148,377	$ -
2018	$ -	$ 2,092,800	$ 1,287,675	$ -
2019	$ -	$ 830,100	$ 1,326,306	$ -
2020	$ -	$ 855,003	$ 1,366,095	$ -
2021	$ -	$ 880,653	$ 1,407,078	$ -
2022	$ -	$ 907,073	$ 1,449,290	$ -
2023	$ -	$ 934,285	$ 1,492,769	$ -
2024	$ -	$ 962,313	$ 1,537,552	$ -
2025	$ -	$ 991,183	$ 1,583,678	$ -
2026	$ -	$ 1,020,918	$ 1,631,189	$ -

Residential Lighting Program

Residential					
12	Distribution System	EKPC	Distribution System	Customer
Year	Admin	Admin	Rebates	Investment
2012	$ -	$ 35,000	$ 498,960	$ 598,752
2013	$ -	$ 36,050	$ 964,620	$ 1,273,298
2014	$ -	$ 37,132	$ 1,428,010	$ 2,056,334
2015	$ -	$ 38,245	$ 1,312,500	$ 2,100,000
2016	$ -	$ 39,393	$ 1,351,875	$ 2,163,000
2017	$ -	$ 40,575	$ 1,392,431	$ 2,227,890
2018	$ -	$ 41,792	$ 1,434,204	$ 2,294,727
2019	$ -	$ 43,046	$ 1,477,230	$ 2,363,569
2020	$ -	$ 44,337	$ 1,521,547	$ 2,434,476
2021	$ -	$ 45,667	$ 1,567,194	$ 2,507,510
2022	$ -	$ -	$ -	$ -
2023	$ -	$ -	$ -	$ -
2024	$ -	$ -	$ -	$ -
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -

Touchstone Energy (TSE) Home

Residential		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
16	Year				
	2012	$ 229,200	$ 15,437	$ 429,750	$ 979,830
	2013	$ 266,976	$ 15,900	$ 500,580	$ 1,141,322
	2014	$ 302,144	$ 16,377	$ 566,521	$ 1,291,667
	2015	$ 319,076	$ 16,868	$ 598,268	$ 1,364,051
	2016	$ 334,501	$ 17,374	$ 627,190	$ 1,429,993
	2017	$ 348,710	$ 17,896	$ 653,831	$ 1,490,734
	2018	$ 361,081	$ 18,433	$ 677,028	$ 1,543,623
	2019	$ 371,914	$ 18,986	$ 697,338	$ 1,589,932
	2020	$ 394,219	$ 19,555	$ 739,160	$ 1,685,286
	2021	$ 406,567	$ 20,142	$ 762,314	$ 1,738,075
	2022	$ 411,776	$ 20,746	$ 772,080	$ 1,760,342
	2023	$ 430,774	$ 21,368	$ 807,700	$ 1,841,557
	2024	$ 441,416	$ 22,009	$ 827,654	$ 1,887,052
	2025	$ 464,644	$ 22,670	$ 871,208	$ 1,986,353
	2026	$ 482,214	$ 23,350	$ 904,151	$ 2,061,463

Touchstone Energy Manufactured Home

Residential		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
17	Year				
	2012	$ 7,344	$ 5,569	$ 34,000	$ 80,750
	2013	$ 8,677	$ 6,251	$ 40,170	$ 95,404
	2014	$ 9,624	$ 6,757	$ 44,558	$ 105,825
	2015	$ 10,149	$ 7,069	$ 46,987	$ 111,595
	2016	$ 10,697	$ 7,393	$ 49,522	$ 117,616
	2017	$ 11,268	$ 7,731	$ 52,167	$ 123,897
	2018	$ 11,606	$ 7,963	$ 53,732	$ 127,614
	2019	$ 11,954	$ 8,202	$ 55,344	$ 131,443
	2020	$ 12,587	$ 8,575	$ 58,271	$ 138,395
	2021	$ 12,964	$ 8,832	$ 60,020	$ 142,546
	2022	$ 13,353	$ 9,097	$ 61,820	$ 146,823
	2023	$ 13,754	$ 9,370	$ 63,675	$ 151,228
	2024	$ 14,166	$ 9,651	$ 65,585	$ 155,764
	2025	$ 14,909	$ 10,087	$ 69,021	$ 163,925
	2026	$ 15,356	$ 10,390	$ 71,092	$ 168,843

Tune-Up HVAC Program with Duct Sealing
Residential

4 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 189,000	$ 5,400	$ 130,000	$ 120,000
2013	$ 260,858	$ 5,562	$ 179,426	$ 165,624
2014	$ 268,684	$ 5,729	$ 184,809	$ 170,593
2015	$ 276,744	$ 5,901	$ 190,353	$ 175,711
2016	$ 285,046	$ 6,078	$ 196,064	$ 180,982
2017	$ 293,598	$ 6,260	$ 201,946	$ 186,411
2018	$ 302,406	$ 6,448	$ 208,004	$ 192,004
2019	$ 311,478	$ 6,641	$ 214,244	$ 197,764
2020	$ 320,822	$ 6,841	$ 220,671	$ 203,697
2021	$ 330,447	$ 7,046	$ 227,291	$ 209,808
2022	$ 340,360	$ 7,257	$ 234,110	$ 216,102
2023	$ 350,571	$ 7,475	$ 241,134	$ 222,585
2024	$ 361,088	$ 7,699	$ 248,368	$ 229,262
2025	$ 371,921	$ 7,930	$ 255,819	$ 236,140
2026	$ 383,078	$ 8,168	$ 263,493	$ 243,224

Commercial Lighting including advanced measures/LED exit signs

Commercial 20 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ 50,000	$ 266,250	$ 980,000
2013	$ -	$ 51,500	$ 274,238	$ 1,009,400
2014	$ -	$ 53,045	$ 282,465	$ 1,039,682
2015	$ -	$ 54,636	$ 290,939	$ 1,070,872
2016	$ -	$ 56,275	$ 299,667	$ 1,483,421
2017	$ -	$ 57,964	$ 308,657	$ 1,527,923
2018	$ -	$ 59,703	$ 317,916	$ 1,573,761
2019	$ -	$ 61,494	$ 327,454	$ 1,620,974
2020	$ -	$ 63,339	$ 337,278	$ 1,669,603
2021	$ -	$ 65,239	$ 347,396	$ 1,719,691
2022	$ -	$ 67,196	$ 357,818	$ 1,771,282
2023	$ -	$ 69,212	$ 368,552	$ 1,824,420
2024	$ -	$ 71,288	$ 379,609	$ 1,879,153
2025	$ -	$ 73,427	$ 390,997	$ 1,935,527
2026	$ -	$ 75,629	$ 402,727	$ 1,993,593

Industrial Compressed Air Program

Industrial

4

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 117,000	$ 30,000	$ -	$ 1,067,040
2013	$ 160,680	$ 30,900	$ -	$ 1,465,402
2014	$ 165,500	$ 31,827	$ -	$ 1,509,364
2015	$ 170,465	$ 32,782	$ -	$ 1,554,645
2016	$ 175,579	$ 33,765	$ -	$ 1,601,284
2017	$ 180,847	$ 34,778	$ -	$ 1,649,322
2018	$ 186,272	$ 35,822	$ -	$ 1,698,802
2019	$ 191,860	$ 36,896	$ -	$ 1,749,766
2020	$ 197,616	$ 38,003	$ -	$ 1,802,259
2021	$ 203,545	$ 39,143	$ -	$ 1,856,327
2022	$ 209,651	$ 40,317	$ -	$ 1,912,017
2023	$ 215,940	$ 41,527	$ -	$ 1,969,377
2024	$ 222,419	$ 42,773	$ -	$ 2,028,459
2025	$ 229,091	$ 44,056	$ -	$ 2,089,312
2026	$ 235,964	$ 45,378	$ -	$ 2,151,992

"Beat the Peak" program - residential demand response

Residential		Distribution System	EKPC	Distribution System	Customer
10 Year		Admin	Admin	Rebates	Investment
	2012	$ -	$ 429,665	$ -	$ -
	2013	$ -	$ 387,918	$ -	$ -
	2014	$ -	$ 399,556	$ -	$ -
	2015	$ -	$ 411,542	$ -	$ -
	2016	$ -	$ 423,889	$ -	$ -
	2017	$ -	$ 436,605	$ -	$ -
	2018	$ -	$ 449,703	$ -	$ -
	2019	$ -	$ 463,194	$ -	$ -
	2020	$ -	$ 477,090	$ -	$ -
	2021	$ -	$ 491,403	$ -	$ -
	2022	$ -	$ 506,145	$ -	$ -
	2023	$ -	$ 521,329	$ -	$ -
	2024	$ -	$ 536,969	$ -	$ -
	2025	$ -	$ 553,078	$ -	$ -
	2026	$ -	$ 569,671	$ -	$ -

ENERGY STAR Residential Central Air Conditioning program

Residential		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
38	Year				
	2012	$ 460,200	$ 10,000	$ 260,000	$ 702,000
	2013	$ 474,006	$ 10,300	$ 267,800	$ 723,060
	2014	$ 488,226	$ 10,609	$ 275,834	$ 744,752
	2015	$ 502,873	$ 10,927	$ 284,109	$ 767,094
	2016	$ 517,959	$ 11,255	$ 731,581	$ 1,448,530
	2017	$ 533,498	$ 11,593	$ 753,528	$ 1,491,986
	2018	$ 549,503	$ 11,941	$ 776,134	$ 1,536,745
	2019	$ 565,988	$ 12,299	$ 799,418	$ 1,582,848
	2020	$ 582,968	$ 12,668	$ 823,401	$ 1,630,333
	2021	$ 600,457	$ 13,048	$ 848,103	$ 1,679,243
	2022	$ 618,470	$ 13,439	$ 873,546	$ 1,729,620
	2023	$ 637,024	$ 13,842	$ 899,752	$ 1,781,509
	2024	$ 656,135	$ 14,258	$ 926,745	$ 1,834,954
	2025	$ 675,819	$ 14,685	$ 954,547	$ 1,890,003
	2026	$ 696,094	$ 15,126	$ 983,183	$ 1,946,703

Geothermal retrofit
Residential
36

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 35,400	$ 5,000	$ 300,000	$ 760,000
2013	$ 36,462	$ 5,150	$ 309,000	$ 782,800
2014	$ 37,556	$ 5,305	$ 318,270	$ 806,284
2015	$ 38,683	$ 5,464	$ 327,818	$ 830,473
2016	$ 39,843	$ 5,628	$ 337,653	$ 855,387
2017	$ -	$ -	$ -	$ -
2018	$ -	$ -	$ -	$ -
2019	$ -	$ -	$ -	$ -
2020	$ -	$ -	$ -	$ -
2021	$ -	$ -	$ -	$ -
2022	$ -	$ -	$ -	$ -
2023	$ -	$ -	$ -	$ -
2024	$ -	$ -	$ -	$ -
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -

Home Energy Information
Residential

50 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ 1,450,000	$ -	$ -
2013	$ -	$ 1,236,000	$ -	$ -
2014	$ -	$ 1,273,080	$ -	$ -
2015	$ -	$ 1,311,272	$ -	$ -
2016	$ -	$ 1,350,611	$ -	$ -
2017	$ -	$ 1,391,129	$ -	$ -
2018	$ -	$ 1,432,863	$ -	$ -
2019	$ -	$ 1,475,849	$ -	$ -
2020	$ -	$ 1,520,124	$ -	$ -
2021	$ -	$ 1,565,728	$ -	$ -
2022	$ -	$ 1,612,700	$ -	$ -
2023	$ -	$ 1,661,081	$ -	$ -
2024	$ -	$ 1,710,913	$ -	$ -
2025	$ -	$ 1,762,240	$ -	$ -
2026	$ -	$ 1,815,108	$ -	$ -

Low Income Weatherization program
Residential

2 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 3,750,000	$ 40,000	$ -	$ -
2013	$ 3,862,500	$ 41,200	$ -	$ -
2014	$ 3,978,375	$ 42,436	$ -	$ -
2015	$ 4,097,726	$ 43,709	$ -	$ -
2016	$ 4,220,658	$ 45,020	$ -	$ -
2017	$ 4,347,278	$ 46,371	$ -	$ -
2018	$ 4,477,696	$ 47,762	$ -	$ -
2019	$ 4,612,027	$ 49,195	$ -	$ -
2020	$ 4,750,388	$ 50,671	$ -	$ -
2021	$ 4,892,899	$ 52,191	$ -	$ -
2022	$ 5,039,686	$ 53,757	$ -	$ -
2023	$ 5,190,877	$ 55,369	$ -	$ -
2024	$ 5,346,603	$ 57,030	$ -	$ -
2025	$ 5,507,001	$ 58,741	$ -	$ -
2026	$ 5,672,211	$ 60,504	$ -	$ -

Mobile Home Retrofit = "MH_RETRO"

Residential	5 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
	2012	$ 125,000	$ 50,000	$ 350,000	$ 600,000
	2013	$ 128,750	$ 51,500	$ 360,500	$ 618,000
	2014	$ 132,613	$ 53,045	$ 371,315	$ 636,540
	2015	$ 136,591	$ 54,636	$ 382,454	$ 655,636
	2016	$ 140,689	$ 56,275	$ 393,928	$ 675,305
	2017	$ 144,909	$ 57,964	$ 405,746	$ 695,564
	2018	$ 149,257	$ 59,703	$ 417,918	$ 716,431
	2019	$ 153,734	$ 61,494	$ 430,456	$ 737,924
	2020	$ 158,346	$ 63,339	$ 443,370	$ 760,062
	2021	$ 163,097	$ 65,239	$ 456,671	$ 782,864
	2022	$ 167,990	$ 67,196	$ 470,371	$ 806,350
	2023	$ 173,029	$ 69,212	$ 484,482	$ 830,540
	2024	$ 178,220	$ 71,288	$ 499,016	$ 855,457
	2025	$ 183,567	$ 73,427	$ 513,987	$ 881,120
	2026	$ 189,074	$ 75,629	$ 529,406	$ 907,554

Programmable Thermostat Program

Residential		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
54	Year				
	2012	$ 9,000	$ 5,000	$ 30,000	$ 55,200
	2013	$ 9,270	$ 5,150	$ 30,900	$ 56,856
	2014	$ 9,548	$ 5,305	$ 31,827	$ 58,562
	2015	$ 9,835	$ 5,464	$ 32,782	$ 60,319
	2016	$ 10,130	$ 5,628	$ 33,765	$ 62,128
	2017	$ 10,433	$ 5,796	$ 34,778	$ 63,992
	2018	$ 10,746	$ 5,970	$ 35,822	$ 65,912
	2019	$ 11,069	$ 6,149	$ 36,896	$ 67,889
	2020	$ 11,401	$ 6,334	$ 38,003	$ 69,926
	2021	$ 11,743	$ 6,524	$ 39,143	$ 72,023
	2022	$ 12,095	$ 6,720	$ 40,317	$ 74,184
	2023	$ 12,458	$ 6,921	$ 41,527	$ 76,410
	2024	$ 12,832	$ 7,129	$ 42,773	$ 78,702
	2025	$ 13,217	$ 7,343	$ 44,056	$ 81,063
	2026	$ 13,613	$ 7,563	$ 45,378	$ 83,495

DLC for Residential Pool Pump

Residential		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
7	Year				
	2012	$ -	$ 351,425	$ 30,000	$ -
	2013	$ -	$ 368,071	$ 61,800	$ -
	2014	$ -	$ 385,398	$ 95,481	$ -
	2015	$ -	$ 403,435	$ 131,127	$ -
	2016	$ -	$ 422,206	$ 168,826	$ -
	2017	$ -	$ 92,307	$ 173,891	$ -
	2018	$ -	$ 95,076	$ 179,108	$ -
	2019	$ -	$ 97,929	$ 184,481	$ -
	2020	$ -	$ 100,867	$ 190,016	$ -
	2021	$ -	$ 103,893	$ 195,716	$ -
	2022	$ -	$ 107,009	$ 201,587	$ -
	2023	$ -	$ 110,220	$ 207,635	$ -
	2024	$ -	$ 113,526	$ 213,864	$ -
	2025	$ -	$ 116,932	$ 220,280	$ -
	2026	$ -	$ 120,440	$ 226,888	$ -

Advanced Weatherization Tier 2

Residential 1.2 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ -	$ -	$ -
2013	$ 35,767	$ -	$ 81,113	$ 231,032
2014	$ 73,680	$ -	$ 167,092	$ 475,925
2015	$ 75,890	$ -	$ 172,105	$ 490,203
2016	$ 78,167	$ -	$ 177,268	$ 504,909
2017	$ 80,512	$ -	$ 182,586	$ 520,056
2018	$ 82,927	$ -	$ 188,063	$ 535,658
2019	$ 85,415	$ -	$ 193,705	$ 551,728
2020	$ 87,977	$ -	$ 199,516	$ 568,279
2021	$ 90,616	$ -	$ 205,502	$ 585,328
2022	$ 93,335	$ -	$ 211,667	$ 602,888
2023	$ 96,135	$ -	$ 218,017	$ 620,974
2024	$ 99,019	$ -	$ 224,557	$ 639,603
2025	$ 101,990	$ -	$ 231,294	$ 658,792
2026	$ 105,049	$ -	$ 238,233	$ 678,555

Advanced Weatherization Tier 3
Residential
1.3

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ -	$ -	$ -
2013	$ 23,845	$ -	$ 72,100	$ 205,331
2014	$ 49,120	$ -	$ 148,526	$ 422,981
2015	$ 50,593	$ -	$ 152,982	$ 435,670
2016	$ 52,111	$ -	$ 157,571	$ 448,740
2017	$ 53,674	$ -	$ 162,298	$ 462,203
2018	$ 55,285	$ -	$ 167,167	$ 476,069
2019	$ 56,943	$ -	$ 172,182	$ 490,351
2020	$ 58,651	$ -	$ 177,348	$ 505,061
2021	$ 60,411	$ -	$ 182,668	$ 520,213
2022	$ 62,223	$ -	$ 188,148	$ 535,819
2023	$ 64,090	$ -	$ 193,793	$ 551,894
2024	$ 66,013	$ -	$ 199,607	$ 568,451
2025	$ 67,993	$ -	$ 205,595	$ 585,504
2026	$ 70,033	$ -	$ 211,763	$ 603,070

ENERGY STAR Clothes Washer Rebate Program

Residential

20 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 33,375	$ 10,000	$ 111,250	$ 520,650
2013	$ 34,376	$ 10,300	$ 114,588	$ 536,270
2014	$ 35,408	$ 10,609	$ 118,025	$ 552,358
2015	$ 36,470	$ 10,927	$ 121,566	$ 568,928
2016	$ 37,564	$ 11,255	$ 125,213	$ 585,996
2017	$ 38,691	$ 11,593	$ 128,969	$ 603,576
2018	$ 39,851	$ 11,941	$ 132,838	$ 621,683
2019	$ 41,047	$ 12,299	$ 136,823	$ 640,334
2020	$ 42,278	$ 12,668	$ 140,928	$ 659,544
2021	$ 43,547	$ 13,048	$ 145,156	$ 679,330
2022	$ 44,853	$ 13,439	$ 149,511	$ 699,710
2023	$ 46,199	$ 13,842	$ 153,996	$ 720,701
2024	$ 47,585	$ 14,258	$ 158,616	$ 742,322
2025	$ 49,012	$ 14,685	$ 163,374	$ 764,592
2026	$ 50,483	$ 15,126	$ 168,276	$ 787,530

C&I Demand Response Program

Industrial

3

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 75,000	$ 200,000	$ 232,500	$ 240,000
2013	$ 180,250	$ 51,500	$ 481,525	$ 484,100
2014	$ 265,225	$ 53,045	$ 636,540	$ 625,931
2015	$ 273,182	$ 54,636	$ 573,682	$ 546,364
2016	$ 281,377	$ 56,275	$ 590,892	$ 562,754
2017	$ 289,819	$ 57,964	$ 608,619	$ 579,637
2018	$ 298,513	$ 59,703	$ 626,877	$ 597,026
2019	$ 307,468	$ 61,494	$ 645,684	$ 614,937
2020	$ 316,693	$ 63,339	$ 665,054	$ 633,385
2021	$ 326,193	$ 65,239	$ 685,006	$ 652,387
2022	$ 335,979	$ 67,196	$ 705,556	$ 671,958
2023	$ 346,058	$ 69,212	$ 726,723	$ 692,117
2024	$ 356,440	$ 71,288	$ 748,524	$ 712,880
2025	$ 367,133	$ 73,427	$ 770,980	$ 734,267
2026	$ 378,147	$ 75,629	$ 794,110	$ 756,295

Industrial Process

Industrial

5

Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ -	$ 474,000	$ 120,000	$ 2,518,380
2013	$ -	$ 488,220	$ 123,600	$ 2,593,931
2014	$ -	$ 502,867	$ 127,308	$ 2,671,749
2015	$ -	$ 517,953	$ 131,127	$ 2,751,902
2016	$ -	$ 533,491	$ 135,061	$ 2,834,459
2017	$ -	$ 549,496	$ 139,113	$ 2,919,493
2018	$ -	$ 565,981	$ 143,286	$ 3,007,077
2019	$ -	$ 582,960	$ 147,585	$ 3,097,290
2020	$ -	$ 600,449	$ 152,012	$ 3,190,208
2021	$ -	$ 618,462	$ 156,573	$ 3,285,915
2022	$ -	$ 637,016	$ 161,270	$ 3,384,492
2023	$ -	$ 656,127	$ 166,108	$ 3,486,027
2024	$ -	$ 675,811	$ 171,091	$ 3,590,608
2025	$ -	$ 696,085	$ 176,224	$ 3,698,326
2026	$ -	$ 716,968	$ 181,511	$ 3,809,276

Industrial Variable Speed Drives Program

Industrial 2 Year	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
2012	$ 795	$ 20,000	$ 265,000	$ 979,838
2013	$ 819	$ 20,600	$ 272,950	$ 1,009,233
2014	$ 843	$ 21,218	$ 281,139	$ 1,039,510
2015	$ 869	$ 21,855	$ 289,573	$ 1,070,695
2016	$ 895	$ 22,510	$ 298,260	$ 1,102,816
2017	$ 922	$ 23,185	$ 307,208	$ 1,135,900
2018	$ 949	$ 23,881	$ 316,424	$ 1,169,977
2019	$ 978	$ 24,597	$ 325,917	$ 1,205,077
2020	$ 1,007	$ 25,335	$ 335,694	$ 1,241,229
2021	$ 1,037	$ 26,095	$ 345,765	$ 1,278,466
2022	$ 1,068	$ 26,878	$ 356,138	$ 1,316,820
2023	$ 1,100	$ 27,685	$ 366,822	$ 1,356,324
2024	$ 1,133	$ 28,515	$ 377,827	$ 1,397,014
2025	$ 1,167	$ 29,371	$ 389,161	$ 1,438,924
2026	$ 1,203	$ 30,252	$ 400,836	$ 1,482,092

Commercial Energy Management & Control Systems

Commercial		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
24	Year				
	2012	$ -	$ 10,000	$ 450,000	$ 810,000
	2013	$ -	$ 10,300	$ 463,500	$ 834,300
	2014	$ -	$ 10,609	$ 477,405	$ 859,329
	2015	$ -	$ 10,927	$ 491,727	$ 885,109
	2016	$ -	$ 11,255	$ 506,479	$ 911,662
	2017	$ -	$ 11,593	$ 521,673	$ 939,012
	2018	$ -	$ 11,941	$ 537,324	$ 967,182
	2019	$ -	$ 12,299	$ 553,443	$ 996,198
	2020	$ -	$ 12,668	$ 570,047	$ 1,026,084
	2021	$ -	$ 13,048	$ 587,148	$ 1,056,866
	2022	$ -	$ 13,439	$ 604,762	$ 1,088,572
	2023	$ -	$ 13,842	$ 622,905	$ 1,121,229
	2024	$ -	$ 14,258	$ 641,592	$ 1,154,866
	2025	$ -	$ 14,685	$ 660,840	$ 1,189,512
	2026	$ -	$ 15,126	$ 680,665	$ 1,225,198

DLC for Commercial Central AC

Commercial		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
26	Year				
	2012	$ -	$ 541,140	$ 48,000	$ -
	2013	$ -	$ 356,256	$ 98,880	$ -
	2014	$ -	$ 371,973	$ 152,770	$ -
	2015	$ -	$ 388,311	$ 209,804	$ -
	2016	$ -	$ 405,296	$ 270,122	$ -
	2017	$ -	$ 143,402	$ 278,226	$ -
	2018	$ -	$ 147,704	$ 286,573	$ -
	2019	$ -	$ 152,135	$ 295,170	$ -
	2020	$ -	$ 156,699	$ 304,025	$ -
	2021	$ -	$ 161,400	$ 313,146	$ -
	2022	$ -	$ 166,242	$ 322,540	$ -
	2023	$ -	$ 171,230	$ 332,216	$ -
	2024	$ -	$ 176,367	$ 342,183	$ -
	2025	$ -	$ 181,658	$ 352,448	$ -
	2026	$ -	$ 187,107	$ 363,022	$ -

Commercial Building Performance Program

Commercial			Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
	3 Year	2012	$ 113,400	$ 10,000	$ 553,500	$ 1,051,650
		2013	$ 116,802	$ 10,300	$ 570,105	$ 1,083,200
		2014	$ 120,306	$ 10,609	$ 587,208	$ 1,115,695
		2015	$ 123,915	$ 10,927	$ 604,824	$ 1,149,166
		2016	$ 127,633	$ 11,255	$ 622,969	$ 1,183,641
		2017	$ 131,462	$ 11,593	$ 641,658	$ 1,219,151
		2018	$ 135,406	$ 11,941	$ 660,908	$ 1,255,725
		2019	$ 139,468	$ 12,299	$ 680,735	$ 1,293,397
		2020	$ 143,652	$ 12,668	$ 701,157	$ 1,332,199
		2021	$ 147,961	$ 13,048	$ 722,192	$ 1,372,165
		2022	$ 152,400	$ 13,439	$ 743,858	$ 1,413,330
		2023	$ 156,972	$ 13,842	$ 766,173	$ 1,455,730
		2024	$ 161,681	$ 14,258	$ 789,159	$ 1,499,401
		2025	$ 166,532	$ 14,685	$ 812,833	$ 1,544,383
		2026	$ 171,528	$ 15,126	$ 837,218	$ 1,590,715

Commercial Duct Sealing

Commercial		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
15	Year				
	2012	$ 378,000	$ 10,000	$ 625,000	$ 1,125,000
	2013	$ 389,340	$ 10,300	$ 643,750	$ 1,158,750
	2014	$ 401,020	$ 10,609	$ 663,063	$ 1,193,513
	2015	$ 413,051	$ 10,927	$ 682,954	$ 1,229,318
	2016	$ 425,442	$ 11,255	$ 703,443	$ 1,266,197
	2017	$ 438,206	$ 11,593	$ 724,546	$ 1,304,183
	2018	$ 451,352	$ 11,941	$ 746,283	$ 1,343,309
	2019	$ 464,892	$ 12,299	$ 768,671	$ 1,383,608
	2020	$ 478,839	$ 12,668	$ 791,731	$ 1,425,116
	2021	$ 493,204	$ 13,048	$ 815,483	$ 1,467,870
	2022	$ 508,000	$ 13,439	$ 839,948	$ 1,511,906
	2023	$ 523,240	$ 13,842	$ 865,146	$ 1,557,263
	2024	$ 538,938	$ 14,258	$ 891,101	$ 1,603,981
	2025	$ 555,106	$ 14,685	$ 917,834	$ 1,652,100
	2026	$ 571,759	$ 15,126	$ 945,369	$ 1,701,663

Commercial Efficient HVAC Program

Commercial	1		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
	Year	2012	$ 141,600	$ 10,000	$ 216,000	$ 273,600
		2013	$ 145,848	$ 10,300	$ 222,480	$ 281,808
		2014	$ 150,223	$ 10,609	$ 229,154	$ 290,262
		2015	$ 154,730	$ 10,927	$ 236,029	$ 298,970
		2016	$ 159,372	$ 11,255	$ 243,110	$ 437,598
		2017	$ 164,153	$ 11,593	$ 250,403	$ 450,726
		2018	$ 169,078	$ 11,941	$ 257,915	$ 464,248
		2019	$ 174,150	$ 12,299	$ 265,653	$ 478,175
		2020	$ 179,375	$ 12,668	$ 273,622	$ 492,520
		2021	$ 184,756	$ 13,048	$ 281,831	$ 507,296
		2022	$ 190,299	$ 13,439	$ 290,286	$ 522,515
		2023	$ 196,008	$ 13,842	$ 298,995	$ 538,190
		2024	$ 201,888	$ 14,258	$ 307,964	$ 554,336
		2025	$ 207,944	$ 14,685	$ 317,203	$ 570,966
		2026	$ 214,183	$ 15,126	$ 326,719	$ 588,095

Commercial New Construction Program

Commercial		Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
4 Year	2012	$ -	$ 10,000	$ 924,000	$ 1,663,200
	2013	$ -	$ 10,300	$ 951,720	$ 1,713,096
	2014	$ -	$ 10,609	$ 980,272	$ 1,764,489
	2015	$ -	$ 10,927	$ 1,009,680	$ 1,817,424
	2016	$ -	$ 11,255	$ 1,039,970	$ 1,871,946
	2017	$ -	$ 11,593	$ 1,071,169	$ 1,928,105
	2018	$ -	$ 11,941	$ 1,103,304	$ 1,985,948
	2019	$ -	$ 12,299	$ 1,136,403	$ 2,045,526
	2020	$ -	$ 12,668	$ 1,170,496	$ 2,106,892
	2021	$ -	$ 13,048	$ 1,205,610	$ 2,170,099
	2022	$ -	$ 13,439	$ 1,241,779	$ 2,235,202
	2023	$ -	$ 13,842	$ 1,279,032	$ 2,302,258
	2024	$ -	$ 14,258	$ 1,317,403	$ 2,371,326
	2025	$ -	$ 14,685	$ 1,356,925	$ 2,442,465
	2026	$ -	$ 15,126	$ 1,397,633	$ 2,515,739

Small Commercial & Industrial Audit Program

Commercial	6	Distribution System Admin	EKPC Admin	Distribution System Rebates	Customer Investment
Year					
	2012	$ 180,000	$ 50,000	$ 390,000	$ 331,500
	2013	$ 185,400	$ 51,500	$ 401,700	$ 341,445
	2014	$ 190,962	$ 53,045	$ 413,751	$ 351,688
	2015	$ 196,691	$ 54,636	$ 426,164	$ 362,239
	2016	$ 202,592	$ 56,275	$ 438,948	$ 373,106
	2017	$ 208,669	$ 57,964	$ 452,117	$ 384,299
	2018	$ 214,929	$ 59,703	$ 465,680	$ 395,828
	2019	$ 221,377	$ 61,494	$ 479,651	$ 407,703
	2020	$ 228,019	$ 63,339	$ 494,040	$ 419,934
	2021	$ 234,859	$ 65,239	$ 508,862	$ 432,532
	2022	$ 241,905	$ 67,196	$ 524,127	$ 445,508
	2023	$ 249,162	$ 69,212	$ 539,851	$ 458,874
	2024	$ 256,637	$ 71,288	$ 556,047	$ 472,640
	2025	$ 264,336	$ 73,427	$ 572,728	$ 486,819
	2026	$ 272,266	$ 75,629	$ 589,910	$ 501,423

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 13
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 13. Refer to Table 8.(3)(e)(5) on pages 102 and 103 of the IRP.

Request 13a. Explain how the present value of the projected DSM program cost savings was discounted to a 2012 present value.

Response 13a. Each future year of projected costs savings has been discounted to the year 2012 using a discount rate.

Request 13b. Provide the discount rate(s) used to calculate the present value amounts and explain how the rate(s) was (were) selected and developed.

Response 13b. The discount rate used to calculate the present value amounts is [redacted]. This value was selected to represent the long term cost of capital for East Kentucky Power Cooperative.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2012-00149
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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 14
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 14. Refer to pages 161-163 of the IRP which summarizes the development of EKPC's optimal resource plan for the 2012-2026 planning period.

Request 14a. Confirm that the projected capacity additions in Table 8.(4)(a) are based on the continued operation of the Dale units and Cooper Unit 1 and that those additions represent the plan identified as Plan 1 in Table 8.(5)(a).

Response 14a. The Peaking/Intermediate Capacity Additions column on Table 8.(4)(a) shows a 275/250MW addition in 2016. This represents the replacement for Dale Station (195MW) and Cooper 1(110MW) if these units are not the least cost compliance option for the MATS rule, as stated at the bottom of page 17. Those additions do represent the plan identified as Plan 1 in Table 8.(5)(a).

Request 14b. The last sentence on page 162 states that the five lowest cost plans are shown in the following table, which the sentence identifies as Table 8.3. The table, however, has the heading "Table 8.5 (a)." Clarify that this is the table identified in the sentence as Table 8.3.

Response 14b. The text should reference Table 8.5(a) not Table 8.3.

Request 14c. Based on the results EKPC realized using the *Resource Optimizer* simulation model, provide the present value revenue requirements of the resource plans identified as the "[f]ive lowest cost plans" on page 162.

Response 14c. The *Resource Optimizer* compares incremental costs of cases and does not include all of EKPC's fixed costs that do not change between options. Therefore, the present worth data is comparable between cases but not on a total revenue requirements basis. The following data includes fuel, variable O&M, emissions costs, purchased power costs and fixed capital and O&M costs for new generation facilities.

Plan 1:	$14,711,842,956
Plan 2:	14,835,789,648
Plan 3:	14,847,802,201
Plan 4:	14,897,126,019
Plan 5:	15,017,994,638

EAST KENTUCKY POWER COOPERATIVE, INC.
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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 15
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 15. Refer to the IRP, page 165, Section 8.5, Reliability Criteria and Projected Capacity Needs.

Request 15a. EKPC is a member of SERC Reliability Corporation ("SERC"). As a SERC member, "EKPC plans capacity to meet its peak load expectations plus a 12 percent reserve margin." Explain in detail how EKPC's planning reserve margin is related to its membership in SERC.

Response 15a. As stated in the Southeastern Electric Reliability Council Principles and Guides for Reliability in System Planning (Approved by the SERC Board – April 26, 1995): "The purpose of SERC is to augment the reliability of bulk power supply in the areas served by the member systems. This can be best accomplished by promoting maximum coordination of planning, construction and utilization of generation and transmission facilities involved in interconnected operations.

It is recognized that the reliability of power supply in local areas is the responsibility of the individual SERC members and that each system has internal criteria relating to load forecasting, resource planning, and transmission planning. The criteria outlined in this document are a resource to be used in conjunction with local area criteria."

While SERC does not prescribe a specific percent reserve margin requirement, their operating requirements define a level of certainty that can only be met by an adequate capacity reserve margin.

Request 15b. Explain why 12 percent is the specific reserve margin EKPC uses for planning purposes as opposed to some other percentage.

Response 15b. EKPC has been using 12 percent reserve margin for several years. The last detailed study of the appropriate level for operations was filed in EKPC's 2003 Integrated Resource Plan, beginning on page 8-65. The reserve margin must be high enough to account for operational reserves that are required on a daily basis along with a degree of uncertainty in the load and weather forecasts. At one time EKPC planned on a 20% reserve margin, then 15% and most recent history is 12%. Since EKPC has not curtailed native load while operating under this criteria, one could conclude that the 12 percent reserve level has provided adequate reliability. MISO requires 15% reserves for its members. PJM reserve requirements are based on the member's contribution to the PJM system peak and varies by entity. SERC does not have any specific level of reserve margin requirement.

EAST KENTUCKY POWER COOPERATIVE, INC.
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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 16
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 16. Refer to the IRP, pages 167-168, Table 8.(3)(c) and Table 8.(4)(b)1-4. Explain why the total of Power Purchases and Market Purchase for each year shown in Table 8.(3)(c) differs from the total for the same year of the Firm Purchases-Other Utilities and Firm Purchases-Non-Utilities in Table 8.(4)(b)l-4.

Response 16. The two tables are not reporting the same data. All of the firm purchases reported on page 168 in Table 8.(4)(b)1-4 are included in the Power Transactions reported on page 167 in Table 8.(3)(c). However, not all of the Market Purchases listed in Table 8.(3)(c) on page 167 are "Firm", so not all of those purchases are listed on page 168.

EAST KENTUCKY POWER COOPERATIVE, INC.
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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 17
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 17. Refer to page 170, Section 9.0 of the IRP. Confirm whether 1997 is the correct year of the consent decree discussed in the last sentence on the page.

Response 17. EKPC entered the Acid Rain Consent Decree on November 30, 2007, not 1997.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 18
RESPONSIBLE PERSONS: **Craig A. Johnson/Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 18. Refer to page 176 of the IRP. The last sentence in the Regional Haze Rule section refers to controls being installed at Cooper Unit 2 and plans to install parallel controls at Cooper Unit 1.

Request 18a. Provide the status of the construction at Cooper Unit 2.

Response 18a. The Cooper Unit 2 Retrofit Project is 98% complete. All systems are in operation at this time and are working well. The work remaining consists of performance testing, site paving, several additional platforms and stairs for area access and finish painting.

Request 18b. Provide a timeline for the planned construction at Cooper Unit 1.

Response 18b. EKPC has hired Burns and McDonnell to help pull the engineering cost assessment together to comply with several environmental rules that affect Cooper Unit 1. EKPC understands that the Mercury Air Toxics Rule (MATs), pending DC Circuit Court decision on the Cross State Air Pollution Rule, BART and pending Water and CCR rule, will impact this unit. At the present time, since the assessment is not complete, EKPC does not have a construction time line for unit compliance.

However, EKPC knows that this unit must comply environmentally and be economic on and beyond April 16, 2015 in accordance with MATs. EKPC and Burns & McDonnell are aware that we must provide our state regulator notice should we need an extra year under MATs, April 16, 2015 to April 16, 2016.

Finally, EKPC's goal is have the engineering cost assessment report by year's end that clearly lays out construction schedules and timelines.

Note that EKPC issued a Request for Proposals for up to 300 MW of power supply on June 8, 2012. Bids are due back to EKPC by August 30, 2012. These bids will be compared to EKPC's cost to modify existing plants (Cooper 1 and Dale Station) to meet environmental rules. The risk adjusted, least cost plan will be developed and presented to the Commission in early 2013.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 19
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 19. Refer to Section 8, page 17, of EKPC's 2009 IRP. One of the existing DSM programs, Electric Water Heater, offered rebates to residential customers for installing high efficiency electric water heaters. This program is not listed as an existing program in EKPC's 2012 IRP. What is the status of the Electric Water Heater program?

Response 19. EKPC discontinued the DSM incentive program for electric water heaters because the benefit/cost ratio deteriorated due to the fact that the typical tank storage electric water heater purchased at a local retail store is already 90% energy efficient or higher.

EAST KENTUCKY POWER COOPERATIVE, INC.
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FIRST REQUEST FOR INFORMATION RESPONSE

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 20
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 20. An existing DSM program in EKPC's 2009 IRP, Geothermal Cooling and Heating, offered rebates to retail members who installed efficient geothermal systems. Provide the status of this program and explain the difference between it and the "Geothermal Retrofit" listed as a "new" DSM program on page 11 of EKPC's 2012 IRP.

Response 20. In 2009, EKPC tracked the Geothermal rebate program separately from the Air Source Heat Pump program. Both programs were retrofit programs requiring the home to convert its heat from conventional electric strip heat to either a Geothermal or Air-Source heat pump. The programs were very similar; EKPC combined the programs and now has a DSM tariff for a heat pump retrofit program.

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REQUEST 21
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 21. An existing DSM program in EKPC's 2009 IRP, Compact Fluorescent Lighting, provided fluorescent bulbs at member cooperative annual member meetings. This program is not listed as an existing DSM program in the 2012 IRP. What is the status of this program?

Response 21. The Compact Fluorescent Lighting program is the same Residential Lighting program as referenced in Request 5. EKPC's marketing department financially assists the Owner-Members in providing light bulbs at their annual meetings.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 22
RESPONSIBLE PERSONS: **Jamie Bryan Hall and Gary G. Stansberry**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 22. Refer to TA-Volume 1, Section 3.5(2), page 31. Provide the applicable sections of the Twenty-Year Financial Forecast used to prepare the load forecast, and a discussion of all "assumptions about future environmental issues such as carbon legislation and future supply resources" that were incorporated into the load forecast, peak demand forecasts, and any sensitivity analyses that were conducted.

Response 22. The 2010 Twenty Year Financial Forecast was used for the applicable sections of the 2010 Load Forecast. The following assumptions address the requested data concerning future environmental issues and future supply resources. The Average Cost of Power to Member Systems (Table 3) becomes the economic price component for the Load Forecast. The projected price increases reduce annual average growth of residential use per customer by an average of 0.4 percent. Along with the assumptions listed below (#10-14) was House Bill H.R. 2454 by Henry Waxman addressing possible CO2 legislation. Cost estimates from this House Bill were also included in this Financial Forecast beginning in 2014. Alternate scenarios (sensitivity analysis) were performed on the Financial Forecast and results included below.

Assumptions for 20 Yr Financial Forecast

7. Interest rates in this forecast for long-term debt range from 6.0 – 7.2 percent from 2012 through 2015, increasing to 6.5 – 7.8 percent from 2016 through 2029. Short-term debt interest rates are estimated to be 6.0 percent for 2012 and 2013, increasing to 6.5 percent for 2014 and 2015 and 7.0 percent from 2016 through 2029. Tax-exempt bonds are estimated to be 3.5 percent from 2012 through 2029.

8. Internally generated funds are invested at an annual investment rate of 0.5 percent for 2010, 1.0 percent for 2011, 2.0 percent for 2012, increasing to 3.0 percent from 2013 through 2029.

9. The current Fuel Adjustment Clause (FAC) base fuel charge of 36.53 mills per kWh is held constant throughout the forecast period.

10. The U.S. District Court of Appeals, District of Columbia Circuit, remanded Clean Air Interstate Rule (CAIR) back to the EPA to promulgate a new rule that is consistent with its ruling. The Courts decision allows for CAIR to remain in effect until such new rule is promulgated by EPA. The existing CAIR rules call for a multi-pollutant reduction strategy that provides for a 60-70% reduction of sulfur dioxide, nitrogen oxide, and mercury (Hg) emissions. The CAIR rule for SO_2 and NOx requires reductions by 2010 and 2015 while the CAMR rule that called for the Hg monitoring and Hg reductions was vacated February 8, 2008. Even though CAMR has been vacated, CAIR and the EKPC Consent Decree NSR will necessitate the installation of pollution controls at various EKPC power plants to achieve the necessary reductions to remain in compliance with the state and federal EPA regulations. EPA New CAIR is due out June 2011. Cap and trade will continue for SO_2 and NOx.

11. Green House Gas federal rules for new cars and light duty trucks established CO_2 as a regulated criteria pollutant under the CAA (Clean Air Act). CO_2 is referenced in the light duty regulation – January 2, 2011.

12. Clean Air Act compliance costs and PSC funding requirements for SFAS 106 (Post-Retirement Employee Benefits) have been included in this forecast.

13. In April 2009, Spurlock Unit No. 4 became operational. This is a coal-fired 268 MW circulating fluidized bed unit. Capital cost was $520 million.

14. In September 2014, Smith Unit No. 1 is expected to become operational. This is a coal-fired 278 MW circulating fluidized bed unit. Estimated capital cost is $819 million.

NEW FACILITIES

Table II
Capital Additions
($000)

Year In-Service	Production	Type of Unit	Transmission	General
2002	[redacted]	Spur 2 SCR	[redacted]	[redacted]
2003		Spur 1 SCR		
2004				
2005		Gilbert		
2006				
2007				
2008				
2009		Spur 2 Scrubber Spur Unit 4 Spur 1 Scrubber		
2010	[redacted]	(2) CT's	[redacted]	[redacted]
2011				
2012		Cooper 2 Scrubber & SCR		
2013	[redacted]		[redacted]	[redacted]
2014		Smith 1 CFB		
2015				
2016				
2017		Cooper 1 Scrubber & Combined Cycle		
2018	[redacted]		[redacted]	[redacted]
2019				
2020		CT		
2021		CT		
2022				
2023				
2024				
2025		CT		
2026		CT		
2027				
2028		CT		
2029				

Average Cost of Power to Member Systems

The average cost of power to the member systems is provided below:

Table III
(Mills per kWh)

Year	Base Rates	Fuel Adjustment	Environmental Surcharge	Average Cost to Members
2010	[redacted]	[redacted]	[redacted]	[redacted]
2011				
2012				
2013				
2014	[redacted]	[redacted]	[redacted]	[redacted]
2015				
2016				
2017				
2018	[redacted]	[redacted]	[redacted]	[redacted]
2019				
2020				
2021				
2022	[redacted]	[redacted]	[redacted]	[redacted]
2023				
2024				
2025				
2026	[redacted]	[redacted]	[redacted]	[redacted]
2027				
2028				
2029				

TABLE V

ENVIRONMENTAL COMPLIANCE COSTS

Location	Equipment Type	In-Service Date	Estimated Capital Costs	Estimated Annual O & M
Spurlock #2	SCR	05/31/02	[redacted]	[redacted]
Spurlock #1	SCR	06/15/03	[redacted]	[redacted]
Gilbert Unit	Pollution Control Equip	03/01/05	[redacted]	[redacted]
Spurlock #2	Scrubber	01/01/09	[redacted]	[redacted]
Spurlock #4	Pollution Control Equip	04/01/09	[redacted]	[redacted]
Spurlock #1	Scrubber	08/01/09	[redacted]	[redacted]
Cooper #2	Scrubber, ESP's & SCR	05/29/12	[redacted]	[redacted]
Smith #1	Pollution Control Equip	09/01/14	[redacted]	[redacted]
Cooper #1	Scrubber	01/01/17	[redacted]	[redacted]

* Includes only capital costs related to emissions control.
** Includes a new precipitator on Spurlock #1 and other capital costs related to emissions control.

Sensitivity Analysis

Member Cost Summary

Year	Official 2010 FF	1.45 Tier 2010 FF	NG $5	NG $10	Equity 7.5%	Equity 20%	No CO2	PPA (1c) No Smith	PPA (1b) No Smith-CC-CT	Prod Cost (1c) No Smith	Prod Cost (1b) No Smith-CC-CT	Roll ESC(3) into Rates	PPA-price (-)20%	PPA-price (+)20%	DSM 500 w/ Smith	DSM 500 Optimized
2008																
2009																
2010																
2011																
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EAST KENTUCKY POWER COOPERATIVE, INC.
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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 23
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 23. Refer to TA-Volume 1, Section 3.5(3), page 31.

Request 23a. Explain whether all appliance data used in the statistically adjusted end-use ("SAE") modeling comes from the U.S. Department of Energy ("DOE") or if some data comes from EKPC's end-use surveys.

Response 23a. Itron developed the SAE modeling framework EKPC uses. As stated at https://www.itron.com/na/productsAndServices/pages/Energy%20Forecasting%20Group.aspx, "The SAE method embodies end-use concepts and trends into a monthly econometric forecasting framework. Itron works closely with the Energy Information Administration (EIA) to embed their latest equipment saturation and efficiency trend forecasts in these models. EFG members receive regional versions of the SAE models (MetrixND project files) and the associated regional databases."

Itron's framework allows utilities to substitute their own saturation and efficiency trends for the EIA regional data (which includes Kentucky, Tennessee, Mississippi, and Alabama). EKPC uses the results of its end-use surveys to establish saturation trends that are more appropriate for each member cooperative.

Request 23b. If some of the data used in the SAE modeling comes from EKPC's end-use surveys, explain how the surveys are conducted and how the appliance data from the surveys is combined with the DOE appliance data for use in EKPC's forecast.

Response 23b. EKPC uses the end-use survey results to establish saturation trends for each member cooperative, which are then combined appropriately with the EIA regional efficiency trends within the Itron SAE framework to establish indices for use in the regression model of monthly residential use per customer.

EKPC and its member cooperatives conduct biennial end-use surveys of residential customers to collect information on the housing stock, heating and cooling methods, and appliance stock, as well as demographic data to be used for analysis. Approximately 800 residential customers from each of the 16 member cooperatives (more than 12,000 overall) are selected by simple random sampling to be invited to participate in the survey. Whenever possible, non-household customers on residential rates, such as barns, churches, or schools, are excluded from the sample, or if later identified in the survey responses, are excluded from the analysis. To protect confidentiality, only aggregate responses are reported.

The most-recent survey, conducted during the latter half of 2011, achieved an overall response rate of 52.7 percent. The first invitation for Internet participation was sent on August 15, 2011 via a postcard. On September 15, 2011, a four-page questionnaire was mailed to all members in the sample who had not completed the survey online. On September 30, 2011, another postcard was sent to all members of the sample, serving as a reminder for those who had not yet completed the survey or a thank-you card for those who had already done so. A fourth and final survey mailing was sent on October 24, 2011.

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REQUEST 24
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 24. Refer to TA-Volume 1, Section 4.0, page 37.

Request 24a. Describe in detail the methodology used to combine IHS Global Insight county level projections into projected regional economic activity.

Response 24a. Economic concepts that are additive, such as population, employment, labor force, households, and real personal income, are summed across counties included in each region as defined in TA-Volume 1, Section 4.0, Table 4-1, page 38. Economic concepts which are ratios, such as real personal income per capita and the unemployment rate, are then calculated.

Request 24b. Explain whether any projected price increases that are the direct result of EKPC activity are factored into the electric price variables used in the customer class load projections.

Response 24b. Yes, projected price increases that are the direct result of EKPC activity are included as described in the response to Request 22.

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REQUEST 25
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 25. Refer to TA-Volume 1, Section 5.0, page 51. Explain why various economic variables such as total employment or household income would not be used consistently in each of the member system residential customer forecasts.

Response 25. EKPC considers the same variables across all member systems. EKPC chooses which variables to include in each member system load forecast model based on the variables that result in the best model statistics and/or forecasts and are consistent with the member systems' input. This method is also discussed in TA-Volume 1, Load Forecast Work Plan, pages 12-13.

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REQUEST 26
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 26. Refer to TA-Volume 1, Section 6.2. EKPC's most recent appliance saturation survey was conducted in 2009, its load forecast was performed in 2010, and the current IRP was filed on April 20, 2012. Explain why more recent survey data and a more recent load forecast was not used for this IRP.

Response 26. The section referenced above is from EKPC's 2010 Load Forecast, which used results from end-use surveys conducted through 2009. EKPC's 2012 Load Forecast will incorporate the results of its 2011 end-use survey.

EKPC produces its load forecast on a two-year cycle, with a load forecast work plan being created and approved and an end-use survey being conducted in odd-numbered years and a load forecast being created and approved in even-numbered years. This schedule complies with the regulatory requirements for RUS borrowers in 7 C.F.R. § 1700.204 (2012).

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REQUEST 27
RESPONSIBLE PERSON: **Jamie Bryan Hall**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 27. Refer to TA-Volume 1, Section 8.0, page 77. Explain in detail how the hourly load forecast is calibrated to seasonal peak demands and to the annual energy forecasts to build the calibrated hourly load forecast for the EKPC system.

Response 27. As mentioned on the referenced page, the calibration is accomplished through Itron's Metrix LT software. The relevant excerpt from the help manual is attached, as "Metrix LT Calibration.pdf". Please see pages 2 -5 of this response.

Method 2: Adjust to Peak and Min.

PSC Request 27

Page 2 of 5

With this method, a four-step procedure is used:

- Calibrate to Energy Control
- Calibrate to Peak Control
- Calibrate to Min Control
- Re Calibrate to Energy Control

This method requires that a Min control be present and that either an Energy or a Peak control also be present. The controls do not need to be of the same frequency. For example, an annual Energy control could be used with monthly Peak and Min controls.

If an Energy control is present, the first step is equivalent to the calculations in equations (1), (2), or (3) above. After this adjustment, the shape input is adjusted to agree with the annual, monthly, or daily energy control values.

If a Peak control is present, the adjustment from equation (4) is applied next. Conceptually, this adjustment shifts the load duration curve up or down to agree with the peak value (for a year, month, or day). Recalibration to energy values is not performed yet. At this point, shape inputs are consistent with the annual, monthly, or daily peak inputs, but not the energy inputs. (Note that if peak values are missing or zero for a given period, the peaks from Step 1 will remain in place).

In Step 3, the shape from Step 2 is adjusted to hit the Min control values. This adjustment can be thought of as a pivot applied to the load duration curve, with the pre-existing peak values held fixed. This adjustment adjusts all points proportional to their distance from the pre-existing peak. Assuming that the Min controls are specified on a monthly basis, the calibration constant is computed as follows for each month.

$$k4_m = \frac{Peak_m - Min_m}{Peak_m - \underset{d,h \in m}{Min}\left(Load2_{m,d,h}\right)} \qquad (7)$$

where

$Peak_m$ is the Peak control value for month m,
$Load2_{m,d,h}$ is the result from Step 2, and
Min_m is the Min control value for month m.

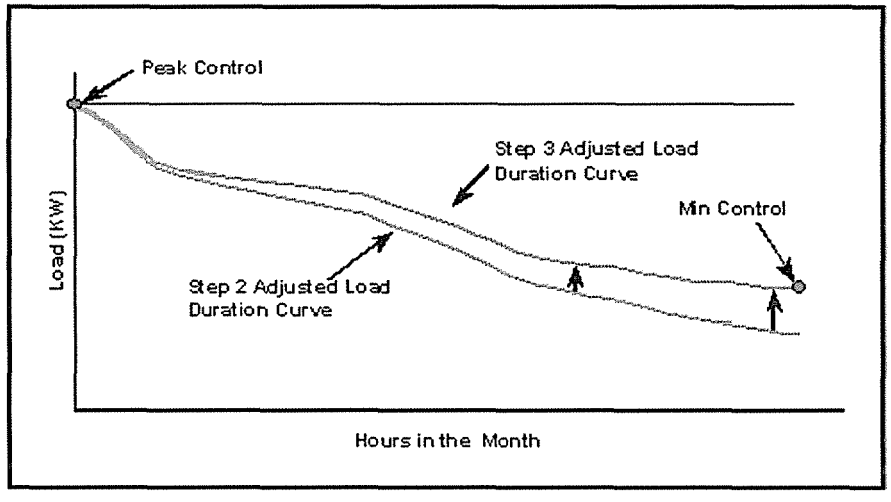
For example, suppose that the Peak control value for a month is 2000 and the min control is 1200. Also, suppose that the minimum value for the month after Step 2 is 1000. The multiplier for that month then is .8, computed as the ratio of (2000-1200) to (2000-1000). Loads in the calibration period then are adjusted upward toward the peak (to increase the minimum value) or downward away from the peak (to decrease the minimum value) as follows:

$$Load4_{m,d,h} = Peak_m - k4_m \times (Peak_m - Load2_{m,d,h}) \quad (8)$$
$$= Load2_m + (1 - k4_m) \times (Peak_m - Load2_{m,d,h})$$

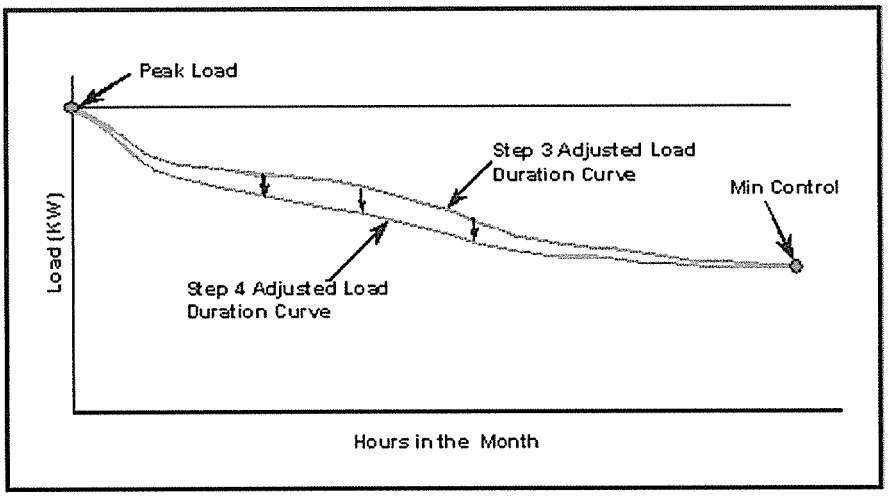
where

$Peak_m$ is the Peak control value for month m,
$Load2_{m,d,h}$ is the result from Step 2,
$k4_m$ is the multiplier for the month, and
$Load4_{m,d,h}$ is the result from this step.

Visually, this can be considered as a proportional shift in the load duration curve with the peak value fixed and with the low end of the curve rotated to hit the control value for the minimum. This process is illustrated below. (Note: if the Min value is zero, the minimum will be adjusted to zero. If it is missing, the minimum value will be unchanged.) If no energy control is specified, Load4 is implemented as the Scaled Forecast.



If an energy control is defined, a fourth step adjusts Load4 to agree with the energy control values. Step 4 of the adjustment algorithm can again be depicted as a load duration curve adjustment. This adjustment maintains the extremes (Peak and Min values) and makes the largest proportional adjustment to values between these extremes. The adjustment gets proportionally smaller as the distance to either one of the extremes decreases. The figure on the following page depicts this process.



The adjustment proceeds as follows. First, the midpoint of the load duration curve is defined based on the loads from Step 3.

$$Mid_m = (Peak_m + Min_m)/2 \quad (9)$$

Given the minimum load and the middle load, an adjustment factor is computed to adjust loads at the middle of the monthly load duration curve the greatest absolute amount. This multiplier is computed as the ratio of the adjustment amount to a compound sum representing (a) the area between the peak value and all loads up to the middle of the load duration and (b) the area between the minimum value and all loads back to the middle of the load duration curve. These areas are shown in the figure below and the adjustment factor is computed as the negative of A/(B+C).

Formally, the adjustment factor for each month is computed as follows:

$$k5_m = \frac{Energy_m - \sum_{dem}\sum_{h} Load4_{m,d,h}}{\sum_{d,h \geq Mid_m}(Peak_m - Load4_{m,d,h}) + \sum_{d,h<Mid}(Load4_{m,d,h} - Min_m)} \quad (10)$$

The adjustment factor (k5) is negative if the required energy adjustment is downward, and it is positive if the required energy adjustment is upward. To adjust the hourly loads, this factor is applied to the difference between (a) the hourly peak for the month and the load in an hour when that load is above the middle load, and (b) the difference between the load in an hour and the minimum load when the hourly load is below the middle load. Formally, the adjusted loads are computed as follows:

$$Load5_{m,d,h} = Load4_{m,d,h} + k5_m \times (Peak_m - Load4_{m,d,h}) \quad \text{if } Load4_{m,d,h \geq Mid_m} \quad (11)$$

$$Load5_{m,d,h} = Load4_{m,d,h} + k5_m \times (Load4_{m,d,h} - Min_m) \quad \text{if } Load4_{m,d,h \leq Mid_m}$$

With this approach, each load is adjusted upward or downward according to its distance from the peak or minimum loads, whichever is closer. The middle load gets the biggest adjustment value, and loads near either extreme (peak or minimum) are adjusted the least. In terms of the load duration curve, this is equivalent to bulging the middle of the load duration curve upward or downward while the peak and minimum values are held fixed.

If the adjustment multiplier (k5) is equal to 1.0, equation (11) will adjust all loads above the midpoint to the same level as the peak. Loads below the midpoint will remain below the peak. If the adjustment multiplier is greater than 1.0, loads are capped at the peak, and the energy control value will not be maintained.

If the adjustment multiplier (k5) is equal to -1.0, equation (11) will adjust all loads below midpoint to the same level as the Min control. Loads above the midpoint will remain above the Min control. If the adjustment multiplier is more negative than -1.0, loads are limited at the Min control, and the energy control value will not be maintained.

Again, although it is useful to think of these adjustments in terms of the load duration curve, all calculations are made directly from the chronological data without need to construct the load duration curve and reassign the adjusted loads back to a chronological order after the adjustment.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 28
RESPONSIBLE PERSON: **Julia J. Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 28. Refer to TA-Volume 2, page 4, which lists the major enhancements to EKPC's DSM planning since the last IRP, and page 15 of the TA, Volume 2. Items 5 and 6, on page 4, and the discussion and table on page 15 refer to DSM in conjunction with environmental compliance costs. Describe any changes in the environmental compliance cost computations in the 2012 IRP that differ from those in the 2009 IRP.

Response 28. 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.

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REQUEST 29
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 29. Refer to TA-Volume 2, Exhibit DSM-3, page 2 of 10, the target market for the "Beat the Peak" program. Explain why the program is "particularly designed to produce critical peak demand savings from end uses other than air conditioning or water heating." (Emphasis added).

Response 29. The "Beat the Peak" program is one of a group of demand response programs designed to provide critical peak demand savings. For the residential class, the $impleSaver DLC program is specifically designed to target critical peak demand savings by placing a utility controllable switch on air conditioners and water heaters. Studies reporting on the impacts of residential demand response programs[1] show that programs which use financial incentives, combined with enabling technology, to deliver higher impacts than those which lack these features. Therefore, EKPC will encourage customers with central air conditioning and electric water heaters to install DLC switches. However, it is typically not cost-effective to install DLC switches on other appliances and devices which provide less demand per appliance. The "Beat the Peak" program is particularly designed to achieve critical peak demand savings from these other end uses. Of course, "Beat the Peak" participants will be encouraged to reduce their demand from all end uses including air conditioning during critical peak

[1] "The Power of Experimentation: New Evidence on Residential Demand Response" by Ahmad Faruqui and Sanem Sergici, 2009, is an excellent recent work.

periods. But the typical savings from the voluntary "Beat the Peak" approach are expected to be much less than from the DLC approach. Finally, we expect some participants of the $impleSaver DLC Program will also be participants of the Beat the Peak Program.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 30
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 30. Refer to TA-Volume 2, Exhibit DSM-3, page 3 of 10, the target market for the Low Income Weatherization program. Explain whether any consideration was given to targeting low income customers with above average electric usage levels.

Response 30. The target market is low income customers. Low income customers having above average electric use often contact the cooperative concerning their high electric bills. This program would be a tool that the cooperatives use to assist low income customers and it is reasonable to assume that low income customers with high electric usage would be some of the first to take advantage of this program.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 31
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 31. Refer to TA-Volume 2, Exhibit DSM-3, page 4 of 10, the description of the Programmable Thermostat with Electric Furnace Retrofit program.

Request 31a. The last sentence states that "[s]ome studies have shown that programmable thermostats can significantly increase morning peak loads when used with heat pumps." Explain whether the phrase "some studies" means that other studies have not shown the same result.

Response 31a. The phrase "some studies" is not meant to say that other studies have not shown the same result. The phrase was used to indicate the fact that most studies have addressed other factors concerning the programmable thermostat, such as how reliable the energy savings are and how usability and customer behavior influence savings or the lack thereof.

Request 31b. Identify the studies referenced in the description of the program and provide the year each study was performed or published.

Response 31b. This description was based on the following studies:

1. United States Department of Energy, Energy Efficiency and Renewable Energy, web site," Energy Savers for Your Home: Thermostats and Control Systems", February 2011, http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12720 which stated the following: "Programmable thermostats are generally not recommended for heat pumps."

2. Parker, Anello, Richardson, and Bouchelle, "Factors Influencing Space Heat and Heat Pump Efficiency from a Large-Scale Residential Monitoring Study", Florida Solar Energy Center and Florida Power Corporation, 2000. FSEC-PF-362-01. Presented at the 2000 ACEEE Summer Study on Energy Efficiency in Buildings.

This was a highly defensible, large sample size, end-use metered study where a prime objective of the monitoring was to identify ways in which the winter morning residential peak load might be reduced with load management and DSM programs.

This report in turn referred to several other earlier studies which highlighted the increase in morning heating pick-up load with programmable thermostats.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 32
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 32. Refer to TA-Volume 2, Exhibit DSM-3, pages 4 and 5 of 10, where the Advanced Weatherization Tier 2 and Tier 3 programs are described. Confirm whether the only difference between the two programs from a physical perspective will be the amount of insulation and air sealing that is provided.

Response 32. The customer must achieve a higher level of BTUs reduced to receive the increased incentives from the Tier 2 and Tier 3 Programs. Yes, generally speaking, more insulation and better air sealing will help the customer achieve a higher level of BTU reduction.

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COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 33
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 33. Refer to TA-Volume 2, Exhibit DSM-3, page 5 of 10, and Exhibit DSM-4, page 8 of 21. The program description for the Direct Load Control of Residential Pool Pumps in Exhibit DSM-3 states that an incentive of $10 per year for each pool pump under control will be offered, which is consistent with EKPC's current tariff section DSM-3(a). The rebate amount shown in Exhibit DSM-4 is $20 per year. Explain the discrepancy.

Response 33. EKPC has not installed any switches on pool pumps to date and still considers this a new program. The incentive was increased to $20 for the IRP evaluation. EKPC has not yet made a decision to modify the existing tariff.

EAST KENTUCKY POWER COOPERATIVE, INC.
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FIRST REQUEST FOR INFORMATION RESPONSE

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 34
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 34. Refer to TA-Volume 2, Exhibit DSM-3, page 8 of 10, the fourth paragraph of the description of Direct Load Control for Commercial Air Conditioning program.

Response 34. Please see responses to Requests 35a and 35b.

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FIRST REQUEST FOR INFORMATION RESPONSE

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 35
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 35a. The first sentence of the paragraph states that the incentive will be $40 per year for each commercial air conditioner while the second sentence states that the incentive will be $20 per month for four hot weather months. The second sentence appears to reflect an annual incentive of $80. Confirm the planned amount of the incentive for this program.

Response 35a. The planned amount of the incentive for this program is $40 per year, or $10 per month for four hot weather months. The second sentence contained a typographical error.

Request 35b. EKPC's current tariff, Section DSM-3(b), states that the incentive is based on air conditioning unit tonnage. For units under five tons, the incentive is $5 per month and for units over five tons, the incentive is $6 per month. The incentive is to be credited over the months of June through September. Explain the discrepancy in the incentive amounts shown in the IRP and in EKPC's tariff.

Response 35b. The $40 value ($10 per month for June through September) in the IRP reflects the strategy of paying a consistent incentive for kW saved in summer direct load control across end uses. EKPC pays $20 a year for a controlled residential air conditioner which on average provides 1 kW per unit of load relief. The typical commercial air conditioner will provide approximately 2 kW per facility. The incentive in the IRP is higher than that in the tariff ($40 versus $24). EKPC is considering an update to its DLC tariff to reflect this change. However, more research is needed as EKPC and the Owner-Members are concerned that commercial participants could set a billing demand peak when a control event expires.

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

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION DATED 06/08/12
REQUEST 36
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 36. Refer to TA-Volume 2, Exhibit DSM-6, page 4 of 30, the last paragraph of the description of the Direct Load Control of Residential Air Conditioners and Water Heaters Program. The last sentence states that EKPC's "participation goal represents 16% of the current eligible market of residences with central air conditioning." Explain how 16 percent was chosen and how it compares to participation rates of other electric utilities' residential air conditioning direct load control programs.

Response 36. The 16 percent goal was chosen in 2007 when EKPC was preparing its filing to request approval for a full scale residential Direct Load Control program. EKPC wanted a goal that was challenging yet achievable. EKPC also had a planning goal of 50 MW of summer peak savings.

At that time, EKPC examined a 2006 survey of a group of 40 larger US and Canadian utilities. That survey showed that while participation rates in excess of 25% have been achieved, the mean participation rate was 15%.

The 16% target allowed EKPC to achieve its goal of 50 MW of summer peak savings, and at the same time was in the range of what other electric utilities have achieved.