COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:	PUBLIC SERVICE COMMISSION
The 2012 Integrated Resource Plan of) CASE NO. 2012-00149
East Kentucky Power Cooperative, Inc.)

PROPOSED INTERVENORS SONIA MCELROY AND SIERRA CLUB INITIAL REQUESTS FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE

Proposed Intervenors Sonia McElroy and Sierra Club (collectively "Movants") pursuant to the Kentucky Public Service Commission's ("Commission") May 25, 2012 Order ("May 25 Order"), propound the following requests for information on the East Kentucky Power Cooperative, Inc. ("EKPC") regarding EKPC's Integrated Resource Plan that is the subject of the above-captioned proceeding.

EKPC shall answer these requests for information in the manner set forth in the May 25 Order and by the June 24, 2012 deadline set forth in the Appendix of the December 28 Order. Please produce the requested documents in electronic format at the offices of Sierra Club, 85 Second Street, 2nd Floor, San Francisco, CA 94105 or at such other location as may be mutually agreed upon between counsel of record.

Wherever the response to an interrogatory or request consists of a statement that the requested information is already available to the Proposed Intervenors, provide a detailed citation to the document that contains the information. This citation shall include the title of the document, relevant page number(s), and to the extent possible paragraph number(s) and/or chart/table/figure number(s).

In the event that any document referred to in response to any request for information has been destroyed, specify the date and the manner of such destruction, the reason for such destruction, the person authorizing the destruction and the custodian of the document at the time of its destruction.

The Proposed Intervenors reserve the right to serve supplemental, revised, or additional discovery requests as permitted in this proceeding.

DEFINITIONS

Unless otherwise specified in each individual interrogatory or request, "you," "your," "EKPC," or "Company" refers to East Kentucky Power Cooperative, and its distribution cooperatives, affiliates, employees, and authorized agents.

"And" and "or" shall be construed either conjunctively or disjunctively as required by the context to bring within the scope of these interrogatories and requests for production of documents any information which might be deemed outside their scope by another construction.

"Any" means all or each and every example of the requested information.

"CSAPR" means the Cross-State Air Pollution Rule.

"Communication" means any transmission or exchange of information between two or more persons, whether orally or in writing, and includes, without limitation, any conversation or discussion by means of letter, telephone, note, memorandum, telegraph, telex, telecopy, cable, email, or any other electronic or other medium.

"CO2" means carbon dioxide.

"Document" refers to written matter of any kind, regardless of its form, and to information recorded in any storage medium, whether in electrical, optical or electromagnetic form, and capable of reduction to writing by the use of computer hardware and software, and includes all copies, drafts, proofs, both originals and copies either (1) in the possession, custody or control of EKPC regardless of where located, or (2) produced or generated by, known to or seen by EKPC, but not in their possession, custody or control, regardless of where located or whether still in existence.

Such "documents" shall include, but are not limited to, applications, permits, monitoring reports, computer printouts, contracts, leases, agreements, papers, photographs, tape recordings, transcripts, letters or other forms of correspondence, folders or similar containers, programs, telex, TWX and other teletype communications, memoranda, reports, studies, summaries, minutes, minute books, circulars, notes (whether typewritten, handwritten or otherwise), agenda, bulletins, notices, announcements, instructions, charts, tables, manuals, brochures, magazines, pamphlets, lists, logs, telegrams, drawings, sketches, plans, specifications, diagrams, drafts, books and records, formal records, notebooks, diaries, registers, analyses, projections, email correspondence or communications and other data compilations from which information can be obtained (including matter used in data processing) or translated, and any other printed, written, recorded, stenographic, computer-generated, computer-stored, or electronically stored matter, however and by whomever produced, prepared, reproduced, disseminated or made.

Without limitation, the term "control" as used in the preceding paragraphs means that a document is deemed to be in your control if you have the right to secure the document or a copy thereof from another person or public or private entity having actual possession thereof. If a document is responsive to a request, but is not in your possession or custody, identify the person

with possession or custody. If any document was in your possession or subject to your control, and is no longer, state what disposition was made of it, by whom, the date on which such disposition was made, and why such disposition was made.

In the interest of efficiency during discovery and the hearing process, bates stamp all documents produced in response to these interrogatories and requests for production.

For purposes of the production of "documents," the term shall include copies of all documents being produced, to the extent the copies are not identical to the original, thus requiring the production of copies that contain any markings, additions or deletions that make them different in any way from the original

"DSM" means demand-side management programs including demand-response, interruptible load, and energy efficiency programs.

"EPA" or "US EPA" means the United States Environmental Protection Agency

"GHG" means greenhouse gas

"Identify" means:

- (a) With respect to a person, to state the person's name, address and business relationship (e.g., "employee") to EKPC;
- (b) With respect to a document, to state the nature of the document in sufficient detail for identification in a request for production, its date, its author, and to identify its custodian. If the information or document identified is recorded in electrical, optical or electromagnetic form, identification includes a description of the computer hardware or software required to reduce it to readable form.

"IRP" means EKPC's Integrated Resource Plan filed with the Kentucky PSC on April 23, 2012, including all appendices.

"kWh" means kilowatt-hours.

"MW" means megawatt.

"MWh" means megawatt-hours.

"NOx" means nitrogen oxides

"Relating to" or "concerning" means and includes pertaining to, referring to, or having as a subject matter, directly or indirectly, expressly or implied, the subject matter of the specific request.

"SO2" means sulfur dioxide

PRIVILEGE OR CONFIDENTIALITY

If you claim a privilege including, but not limited to, the attorney-client privilege or the work product doctrine, as grounds for not fully and completely responding to any interrogatory or request for production, describe the basis for your claim of privilege in sufficient detail so as to permit the Commission to adjudicate the validity of the claim if called upon to do so. With respect to documents for which a privilege is claimed, produce a "privilege log" that identifies the author, recipient, date and subject matter of the documents or interrogatory answers for which you are asserting a claim of privilege and any other information pertinent to the claim that would enable the Proposed Intervenors or the Commission to evaluate the validity of such claims.

To the extent that you can legitimately claim that any interrogatory response or responsive document is entitled to confidentiality, the Proposed Intervenors are willing to enter into a confidentiality agreement that would protect such response or document from public disclosure.

TIME

Unless otherwise provided, the applicable time period for each of these requests for information is January 1, 2009 to the present.

REQUESTS FOR INFORMATION

- 1. Produce all discovery responses to any other party in this proceeding.
- 2. Produce a non-redacted, color, electronic version of the IRP filing, including Appendices.
- 3. Produce any workpapers, source documents, and, in machine readable or txt format, input and output files for all modeling that you carried out in creating the IRP, including but not limited to any workpapers, source documents, and modeling files for the 2011 Load Forecast, 2010 Load Forecast, and DSM Report.
- 4. Produce any workpaper or source document for projecting the number of customers in EKPC's service area.
- 5. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of supply-side resources in the IRP.

- 6. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of demand-side resources in the IRP.
- 7. Produce in machine readable or txt format the input and output files for each sensitivity analysis that you considered as part of this resource planning process.
- 8. Refer to p. 3 of the IRP. Produce the Rural Utilities Services approved Work Plan referenced therein.
- 9. Refer to p. 4 of the IRP.
 - a. Identify the bases for EKPC's belief that "an aggressive but reasonable DSM goal would be to pursue approximately 50 MW over a five year period."
 - b. State whether that 50MW figure represents winter peak demand reduction or summer peak demand reduction.
 - c. State whether that 50MW figure represents cumulative or annual peak demand savings.
 - d. Identify the energy savings that would result from the "aggressive but reasonable DSM goal."
- 10. Refer to p. 8 of the IRP. With regards to the statement that "EKPC's experience indicates that the financial investment required to successfully implement DSM programs exceeds the investment assumed in the California tests, principally due to promotional costs incurred to derive awareness, education and adoption in the EKPC service territory":
 - a. Identify the specific experience referenced therein
 - b. Identify the percent or amount by which "the financial investment required to successfully implement DSM programs exceeds the investments assumed in the California tests"
 - c. Identify and produce any documents, studies, or analyses upon which that statement is based
- 11. Refer to pp. 21-22 of the IRP.
 - a. Identify and produce any evaluation created or reviewed by EKPC of the availability, feasibility, or cost of existing or new cogeneration in the EKPC/Distribution Cooperative service territory.
 - b. Identify the basis for your statement that "there has been limited opportunity for the addition of cogeneration in the EKPC/Distribution Cooperative service territory."

- 12. Refer to pp. 22-23 of the IRP:
 - a. Identify and produce any evaluation created or reviewed by EKPC of the cost, feasibility, or availability of existing or new distributed generation in the EKPC/Distribution Cooperative service territory.
 - b. Identify each of the stranded gas reserves distributed generation projects EKPC has discussed with developers over the past several years.
 - Identify the size and cost of each such project that EKPC considered to be "economically viable" and explain why EKPC did not pursue each such project
 - ii. Identify the size and cost of each such project that EKPC considered not to be "economically viable."
- 13. Refer to p. 44 of the IRP. Identify the basis for assuming that EKPC will add 20 industrial customers in 2012, and state how many such customers have been added in 2012 to date.
- 14. Refer to p. 140 of the IRP. Produce the "original MEAGER 2000 Study," the "current annual update prepared by EKPC," and the "final report to be submitted to EKPC's Board of Directors" referenced therein.
- 15. Refer to p. 160 of the IRP. With regards to each out-of-state wind project that EKPC "participated in the evaluation of" identify:
 - a. The size of the project
 - b. The price of the project
 - c. Whether the project is existing or proposed
 - d. Explain why EKPC did not proceed with the project
- 16. Identify and produce any evaluation created or reviewed by EKPC of the cost, feasibility, or availability in the EKPC/Distribution Cooperative service territory, Kentucky, or any neighboring state of any of the following supply side resources:
 - a. Wind
 - b. Solar
 - c. Hydro
 - d. Landfill gas to energy
 - e. Existing natural gas combined cycle capacity
 - f. New natural gas combined cycle capacity

- 17. Refer to p. 162, Table 8.5(a) of the IRP. With regards to the five cases identified therein;
 - a. State whether any of the cases assume the retirement of any of EKPC's existing coal-fired generating units
 - i. If so, identify which unit or units and when they are assumed to retire
 - ii. If not, explain why not
 - b. Identify the environmental modification listed in Case 5, the unit to which such modification would be made, and the capital cost of such modification.
 - c. State whether any of the other cases assume the installation of pollution controls on any of EKPC's existing coal-fired generating units.
 - i. If so, identify the controls to be installed, the units on which they would be installed, the years in which such installation would occur, and the capital cost of such installations.
 - ii. If not, explain why not.
- 18. Refer to p. 168 of the IPR:
 - a. Explain why for the years 2016 through 2026, EKPC plans to generate more GWh of energy from coal than the forecast GWh energy need for each such year.
 - b. State whether EKPC plans to sell all or some of the excess energy generated from coal in each of the years 2016 through 2026 to non-EKPC customers.
 - i. If so, identify the level of revenue estimated to be produced through such sales
 - ii. Produce any analysis of the cost effectiveness of selling excess energy generated from coal in each of the years 2016 through 2026 to non-EKPC customers in comparison to retiring excess EKPC coal resources.
- 19. Refer to p. 172 of the IRP. With regards to the emissions testing that EKPC is conducting "to determine the best way to achieve compliance with the MATS rule":
 - a. Identify and produce the results of all emissions testing completed to date
 - b. Identify any additional emissions testing that EKPC is undertaking or plans to undertake
 - c. Identify the schedule by which EKPC expects to have all such emissions testing completed.
- 20. Refer to p. 172 of the IRP. With regards to the "extensive engineering effort to ensure that EKPC's units comply" with the MATS rule:
 - a. Describe the "extensive engineering effort" and the steps that are planned for that effort
 - b. Identify the schedule for the "extensive engineering effort"
 - c. Identify any outside consultants or engineering firms involved in the "extensive engineering effort"

- 21. For each of EKPC's coal-fired electric generating units, identify the unit's emissions rate in lbs/mmBtu and total emissions in pounds or tons per year for each of 2009, 2010, and 2011 for each of the following pollutants:
 - a. Mercury
 - b. Sulfur dioxide
 - c. HCl
 - d. Particulate matter
- 22. Refer to pp. 172-173 of the IRP:
 - a. Identify the basis for claiming that "CSAPR is likely to be remanded to EPA for revision which will further delay the CSAPR rule."
 - b. In the event that CSAPR is upheld by the U.S. Court of Appeals for the D.C. Circuit, identify what steps EKPC would need to take to come into compliance with CSAPR.
 - c. Produce any documents regarding the steps EKPC would need to take to comply with CSAPR as it was finalized by U.S. EPA.
 - d. State whether EKPC has taken any steps to date to comply with CSAPR.
- 23. Produce any air quality modeling or other evaluations created or reviewed by EKPC or its agents of whether emissions from any of EKPC's coal-fired generating units cause or contribute to violations of the 1-hour SO₂ NAAQS.
- 24. Refer to p. 176 of the IRP. With regards to the controls that EKPC "has committed" to installing on Cooper Unit 1:
 - a. Identify each such control EKPC has committed to installing
 - b. Identify the projected capital cost for each such control
 - c. Identify the projected annual O&M cost for each such control
 - d. Identify the projected heat rate penalty for each such control
 - e. Identify and produce any analysis comparing the cost of installing such controls and continuing to operate Cooper Unit 1 to the cost of retiring and replacing Cooper Unit 1.
- 25. Refer to pages 170-186 of the IRP. For each of the existing or proposed environmental regulations listed therein:
 - a. Identify any pollution controls that EKPC anticipates needing to install on each of its coal-fired generating units as a result of each such regulation
 - b. For each such pollution control on each unit, identify the capital cost of the
 - c. For each such pollution control on each unit, identify the annual O&M cost of the control
 - d. Produce a copy of any assessment or analysis of the need to install, and/or of the economics of installing, additional pollution controls at any of EKPC's coal-fired

electric generating units in response to any existing or proposed environmental regulation

- 26. For each of the Cooper, Dale, or Spurlock coal-fired generating units:
 - a. Identify the expected retirement date
 - b. Identify the current undepreciated book value, and the expected undepreciated book value in each year of 2013 through 2026
 - c. Identify the current salvage value, and the expected salvage value in each year of 2013 through 2026
 - d. Produce the most recent depreciation study
 - e. Produce the most recent condition or performance assessment
 - f. Produce the most recent retirement, continued unit operation, or life extension study or analysis
 - g. Produce any analysis or assessment of the economics of continued operation of such unit
 - h. Produce any analysis or assessment of the impact that retirement of each unit would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability
 - i. Identify any transmission grid upgrades or changes that would be needed to permit the retirement of any of the units
 - j. Produce any analysis or assessment of the need for the continued operation of each unit.
- 27. For each of the Cooper, Dale, or Spurlock coal-fired generating units, identify and produce any analysis of the net present value revenue requirement, cost, or feasibility of retiring the unit and replacing the energy or capacity produced by that unit with any of the following resources in comparison to continuing to operate such unit:
 - a. Energy efficiency
 - b. Demand side management
 - c. Demand response
 - d. Combined heat and power
 - e. Wind energy
 - f. Solar
 - g. Hydroelectric
 - h. Construction of a new natural gas combined cycle facility
 - i. Purchase of power from an existing natural gas combined cycle facility
 - j. Purchase of an existing natural gas combined cycle facility
 - k. Natural gas combustion turbines
 - 1. Power purchase agreements
 - m. Market purchases
 - n. A combination of any or all of the resources identified in subsections a through m above

- 28. Refer to p. 187 and Table 9-1 of the IRP. For each of the Cooper, Dale, or Spurlock coal-fired generating units, identify the following values used in the calculation of present value revenue requirements identified therein:
 - a. The annual environmental capital expenditures for each year from 2012 through 2026.
 - b. The annual non-environmental capital expenditures for each year from 2012 through 2026.
 - c. The annual fixed O&M costs for each year from 2012 through 2026.
 - d. The annual variable O&M costs for each year from 2012 through 2026.
 - e. The annual fuel costs for each year from 2012 through 2026.
- 29. Refer to p. 3 of the 2011 Load Forecast Work Plan. State whether EKPC has prepared preliminary 2012 load forecasts for each member system. If so, produce such forecasts.
- 30. Refer to p. 8 of the 2011 Load Forecast Work Plan.
 - a. Identify the entity or entities from which EKPC purchased forecasted information about the US economy
 - b. Identify and produce the long term economic forecast of the U.S. economy referenced therein.
 - c. Identify and produce the fuel price forecasts referenced therein
- 31. Refer to p. 15 of the 2011 Load Forecast Work Plan. Identify each specific "government regulation" efficiency provision, including but not limited to any provisions of the Energy Independence and Security Act and the American Recovery and Reinvestment Act, that were accounted for in the Residential Customer Forecast. For each provision, identify the annual level of energy savings and peak demand reduction that were assumed in the forecast.
- 32. Refer to p. 18 of the 2011 Load Forecast Work Plan. Identify any efficiency provisions that were accounted for the in the Small Commercial Customer Forecast. For each provision, identify the annual level of energy savings and peak demand reduction that were assumed in the forecast.
- 33. Refer to p. 31 of the 2010 Load Forecast. With regards to the "future electricity prices and customers response to fluctuations in price":
 - a. Identify the annual long term projected price of electricity used in the 2010 load forecast.
 - b. Identify the annual long term projected price of electricity used in the 2011 load forecast
 - c. Identify the "assumptions about future environmental issues such as carbon legislation" used in the 2010 load forecast.

- i. State whether the same assumptions about future environmental issues were used in the 2011 load forecast.
 - 1. If not, identify what assumptions were used.
- d. Produce the "most recent Board approved Twenty-year Financial Forecast" referenced therein.
- 34. Refer to p. 31 of the 2010 Load Forecast. With regards to the "efficiency improvements" referenced therein:
 - a. Identify each efficiency improvement that was accounted for in the 2010 load forecast.
 - b. Explain how each such efficiency improvement was accounted for in the 2010 load forecast.
 - c. Identify the annual energy savings assumed in the 2010 load forecast from each efficiency improvement.
 - d. Identify the peak load reduction assumed in the 2010 load forecast from each efficiency improvement.
- 35. Refer to pp. 31-32 of the 2010 Load Forecast. With regards to the direct load control program referenced therein:
 - a. Identify the annual budget for that program
 - b. Identify the actual annual spending on that program in each of 2008-2011.
 - c. Identify the level of winter peak reduction from the direct load control program that was achieved in each of 2008 through 2011.
 - d. Identify the level of summer peak reduction from the direct load control program that was achieved in each of 2008 through 2011.
 - e. Identify the level of winter and summer peak demand reduction assumed in the 2011 load forecast to be achieved by the direct load control program in each of 2012 through 2026.
- 36. Refer to p. 32, Table 3-6 of the 2010 Load Forecast. Present the equivalent data from the 2011 Load Forecast as is found in Table 3-6 for the 2010 and 2008 Load Forecasts.
- 37. Refer to p. 5 of the DSM Report found in Technical Appendix Volume 2. Identify the "utilities around the country" and the "best practice DSM programs" referenced therein.
- 38. Refer to p. 5 of the DSM Report found in Technical Appendix Volume 2. Identify and produce the "regional studies of energy efficiency opportunities" referenced therein.

- 39. Refer to p. 6 of the DSM Report found in Technical Appendix Volume 2. Identify how each of the 113 DSM measures referenced therein scored on each of the four screening criteria.
- 40. Refer to p. 8 of the DSM Report found in Technical Appendix Volume 2. Identify in dollars per kWh the following costs used in the DSMore modeling:
 - a. Marginal energy cost
 - b. Marginal generation capacity cost
 - c. Marginal transmission & distribution capacity cost
 - d. Fossil fuel cost
 - e. Environmental capacity cost
- 41. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. Identify the per ton cost for SO₂ and NOx allowances used in the DSMore modeling.
- 42. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. With regards to the "capital investments for compliance" referenced therein:
 - a. Explain how that cost was accounted for in the marginal capacity costs
 - b. Identify the amount assumed for such investments and the basis for such amount.
- 43. Refer to p. 15 of the DSM Report found in Technical Appendix Volume 2. Explain the basis for the claim that \$0/MWh is the "likely value placed on carbon dioxide over the 15 year planning period," and produce any documents supporting that claim.
- 44. Identify and produce any DSM potential studies performed by or for EKPC in the last five years, including attendant workbooks or calculations. Please describe if or how these studies are incorporated into the current case. If they are not, why not?
- 45. For each DSM program currently offered by EKPC, identify the:
 - a. Past and projected future annual budget
 - b. Annual actual spending since inception
 - c. Annual MW or MWh reductions achieved through such programs since their inception,
 - d. Annual MW or MWh reductions projected to be achieved through such programs for each year through 2026,
 - e. Expected life of the programs
 - f. Penetration of these programs.
 - g. Score of the program on each of the cost-benefit tests set out in the California Standard Practice Manual.

- 46. For each DSM program evaluated in the DSM Report found in Technical Appendix Volume 2 identify the following assumptions used in evaluating the program:
 - a. Annual cost
 - b. Annual MW or MWh reductions projected to be achieved through such programs for each year through 2026,
 - c. Expected life of the program
 - d. Penetration of these program
- 47. Identify whether any sensitivity analyses were performed by or for the Companies with regards to any of the following factors. For each sensitivity analysis that was performed, provide the results of that analysis, along with any workpaper, source document, and, in machine readable or txt format, input and output files used in or developed for such analysis. For each factor for which no sensitivity analysis was performed, explain why no such analysis was performed:
 - a. Total energy sales
 - b. Peak demand
 - c. Load forecast
 - d. Natural gas prices
 - e. Coal prices
 - f. CO₂ prices
 - g. Natural gas combined cycle plant construction costs
 - h. Cost of renewable energy sources
 - i. Demand growth reductions through DSM programs
 - i. Forward market prices of energy or capacity
- 48. Produce a copy of any forecast or projection of future CO₂ costs, taxes, or emissions allowances prices that have been prepared by or for EKPC.
- 49. For each of the following, identify the price for each year covered by the IRP that you assumed in the IRP:
 - a. Coal prices
 - b. Natural gas prices
 - c. CO₂ prices
 - d. SO₂ allowances
 - e. NOx allowances
- 50. For each of the prices identified in request 49, state whether the same prices were used in the 2010 Load Forecast, the 2011 Load Forecast, and the DSM Report as in the IRP. If not, identify what prices were used and explain why the prices are different.

- 51. Produce any assessment of future natural gas prices and supplies prepared by or for EKPC.
- 52. Produce any assessment of future coal prices and supplies prepared by or for EKPC.
- 53. Produce any assessment of future CO₂ prices prepared by or for EKPC.
- 54. Identify the net present value results of each modeling analysis that you performed as part of this planning process.

Respectfully submitted,

Joe Childers, Esq.

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Dated: June 8, 2012

CERTIFICATE OF SERVICE

I certify that I mailed a copy of Proposed Intervenors Sonia McElroy and Sierra Club's Initial Request for Information to East Kentucky Power Cooperative by first class mail on June 8, 2012 to the following:

Mark David Goss Frost, Brown, Todd, LLC 250 West Main Street Suite 2800 Lexington, KY 40507

Michael L. Kurtz Kurt J. Boehm Boehm, Kurtz & Lowry 36 East Seventh Street, Suite 1510 Cincinnati, OH 45202

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