COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

A REVIEW PURSUANT TO 807 K.A.R. 5:058 OF THE 2009 INTEGRATED RESOURCE PLAN FOR EAST KENTUCKY POWER COOPERATIVE, INC.	))))	CASE NO. 2009-106

SIERRA CLUB, KENTUCKY ENVIRONMENTAL FOUNDATION AND KENTUCKIANS FOR THE COMMONWEALTH FIRST SET OF DATA REQUESTS TO EAST KENTUCKY POWER COOPERATIVE

Pursuant to the Commission's July 2, 2009 Order in the above captioned case, the Sierra Club, Kentucky Environmental Foundation, and Kentuckians for the Commonwealth (collectively "Public Interest Groups") respectfully submit the following interrogatories and requests for production of documents.

1. Reference page 5-6 of East Kentucky Power Cooperative's (EKPC) 2009 Integrated Resource Plan (IRP). Please provide the workpapers and source documents, including, in electronic txt format, all computer input and output files used in the assessment of demand-side management options and DSM programs.

2. Reference page 5-6 of EKPC's 2009 IRP. Please provide the workpapers and source documents, including, in electronic txt format, all computer input and output files used or developed during the performance of the Societal Test on DSM programs.

3. Reference page 5-6 of EKPC's 2009 IRP.

   a. Please specify whether the $40 per ton assumed for carbon emissions is in nominal or constant year dollars and, if in constant year dollars, please specify the year.

   b. Provide the workpapers and source documents which formed the basis for the use of the $40 per ton cost for carbon emissions.

   c. Please specify whether the $40 per ton figure was applied to each ton of carbon emissions or each ton of Carbon Dioxide (CO_2) emissions.

4. Reference page 5-7 of EKPC's 2009 IRP.

   a. Specify the production cost model used to evaluate the supply side alternatives in the IRP.

b. Provide the assumptions used in the production cost modeling for the "supply side alternatives":

(1) construction costs

(2) operating costs

(3) fuel costs

(4) operating performance (heat rate, Forced Outage Rate (FOR), Availability)

c. Specify the demand side options that also were considered as a resource to meet future demand needs and specify:

(1) the costs assumed for each such demand side option.

(2) any limit(s) placed on the amounts of each such demand side option that the production cost model could select in any individual year or in any individual scenario.

d. Provide in electronic machine readable format, copies of the input and output files for the production cost modeling performed by or for EKPC for its 2009 IRP. Please include an index that describes each scenario examined that link the individual files to each such scenario. If possible, please provide the output for the top 10 plans generated by the production cost model for each scenario examined.

e. Specify the unit retirements assumed in each scenario examined during the preparation of the 2009 IRP and the year in which each such retirement was assumed to occur.

5. Reference page 5-8 of EKPC's 2009 IRP.

a. Provide in electronic machine readable format, copies of the input and output files for each of the sensitivities that were performed for the 2009 IRP.

b. Provide the workpapers for the qualitative and quantitative screening performed on the 23 DSM programs as part of the development of the 2009 IRP.

6. Reference page 5-12 of EKPC's 2009 IRP. Provide the manual for the RTSim model.

7. Provide copies of any load and energy sales forecasts prepared by or for EKPC or its member distribution cooperatives since August 2008.

8. Provide copies of any assessments, prepared by or for EKPC or any of its member distribution cooperatives since January 1, 2006, of the potential for energy efficiency in the areas served by EKPC or any of its member distribution cooperatives.

9. Provide copies of any assessments, prepared by or for EKPC or any of its member distribution cooperatives since January 1, 2006, of the potential for renewable resources (wind, biomass, solar) in or deliverable into the areas served by EKPC or any of its member distribution cooperatives. Include in this any assessment of transmission, including DC transmission, to deliver energy from renewable resources.

10. Provide the workpapers and source documents for each of the tables included in EKPC's 2009 IRP.

11. Provide copies of the long term coal and gas fuel price forecasts prepared by or for EKPC since July 1, 2008.

12. Provide copies of the most recent population and economic projections provided to EKPC by Global Insight.

13. Provide EKPC's actual energy sales and monthly peak loads in 2008 and its actual energy sales and monthly peak loads experienced in the first six months of 2009.

14. Reference page 8-8 of EKPC's 2009 IRP. Provide the workpapers and source documents for the qualitative and quantitative screening of the 103 new DSM measures for the 2009 IRP.

15. Provide an unredacted version of Table 8.(2)(c)-1 at page 8-14 of EKPC's 2009 IRP.

16. Provide the most recent cost estimate and construction schedule for the Smith 1 coal plant.

17. Provide copies of the most recent Loss of Load Probability (LOLP) or Loss of Load Expectation (LOLE) analyses prepared by or for EKPC or of the reserve margin EKPC should use for planning purposes.

18. Provide copies of the management and consultant presentations at meetings of EKPC's Board since January 1, 2007 which have addressed any of the following subjects:
    a. The proposed Smith 1 coal plant
    b. EKPC's 2009 IRP
    c. The costs of building new coal or natural gas power plants.
    d. The potential for and potential cost impacts of state, regional or federal regulation of greenhouse gas emissions.
    e. The load and energy sales forecasts for EKPC or its member distribution cooperatives.
    f. The costs of wind and other renewable resources.
    g. The cost of and/or the potential for energy efficiency in the service areas of any of EKPC's member distribution cooperatives or customers.
    h. The cost of and/or the potential for renewable resources in the service areas of any of EKPC's member distribution cooperatives or customers.

i. The necessity to or plans for reducing East Kentucky Power Cooperative 's CO_2 and nitrous oxide (N_2O) emissions.
j. The need for or the projected cost or schedule of the proposed Smith 1 power plant.

19. Provide copies of the documents that have been provided to the members of the EKPC Board since January 1, 2007 which have addressed any of the following subjects:

a. The proposed Smith 1 coal plant
b. EKPC's 2009 IRP
c. The costs of building new coal or natural gas power plants.
d. The potential for and potential cost impacts of state, regional or federal regulation of greenhouse gas emissions.
e. The load and energy sales forecasts for EKPC or its member distribution cooperatives.
f. The costs of wind and other renewable resources.
g. The cost of and/or the potential for energy efficiency in the service areas of any of EKPC's member distribution cooperatives or customers.
h. The cost of and/or the potential for renewable resources in the service areas of any of EKPC's member distribution cooperatives or customers.
i. The necessity to or plans for reducing EKPC's CO_2 and N_2O emissions.
j. The need for or the projected cost or schedule of the proposed Smith 1 power plant.

20. Provide copies of the management, staff and/or consultant presentations at meetings of EKPC's senior management since January 1, 2007 which addressed any of the following subjects:

a. The proposed Smith 1 coal plant
b. EKPC's 2009 IRP
c. The costs of building new coal or natural gas power plants.
d. The potential for and potential cost impacts of state, regional or federal regulation of greenhouse gas emissions.
e. The load and energy sales forecasts for EKPC or its member distribution cooperatives.
f. The costs of wind and other renewable resources.
g. The cost of and/or the potential for energy efficiency in the service areas of any of EKPC's member distribution cooperatives or customers.
h. The cost of and/or the potential for renewable resources in the service areas of any of EKPC's member distribution cooperatives or customers.
i. The necessity to or plans for reducing EKPC's CO_2 and e N_2O emissions.
j. The need for or the projected cost or schedule of the proposed Smith 1 power plant.

21. Provide copies of any assessments of the potential for and/or the potential cost of making off-system capacity purchases that have been prepared by or for EKPC since January 1, 2008.

22. Provide copies of any assessments of the potential for and/or the potential cost of purchasing existing gas-fired capacity that have been prepared by or for EKPC since January 1, 2008.

23. Specify the funds that have already been spent on equipment and commodities for the proposed Smith 1 power plant and list each of the contracts for the design and construction of that plant that have already been signed by EKPC.

24. Reference page 8-2 of EKPC's 2009 IRP.

    a. Provide the most current annual update of the MEAGER 2000 study prepared by EKPC.

    b. Provide a copy of the final report for the updated MEAGER study that was submitted to EKPC's Board of Directors.

    c. Provide the slides, handouts, documents and other materials related to the MEAGER study that were presented or submitted to EKPC's Board of Directors.

25. The following statement is made at page 5-16 of EKPC's 2009 IRP: "EKPC's objective of the power supply plan is to develop a low cost, reliable plan to serve its Member Systems, while simultaneously mitigating risk."

    a. Describe in detail all of the efforts, analyses, studies and assessments that EKPC has undertaken to assess and/or mitigate the risk associated with its proposed power supply plan.

    b. Provide all of the analyses, studies and assessments that EKPC has undertaken to assess and/or mitigate the risk associated with its proposed power supply plan.

26. Provide copies of the assessments, studies and analyses of the financial risk(s) associated with the 2009 Plans presented on page 5-9 of EKPC's 2009 IRP.

27. Provide copies of the assessments, studies and analyses of the impact of the 2009 Plans presented on page 5-9 of EKPC's 2009 on EKPC's customers and the ratepayers of EKPC's member distribution cooperatives.

28. Reference pages 8-21 to 8-31 of EKPC's 2009 IRP.

    a. Please describe the reasons why, in EKPC's opinion, the number(s) of participants in any of the DSM programs listed on these pages will not increase after 2009.

    b. Provide copies of any source documents assessments, studies, analyses and the workpapers which form the basis for the conclusion that the number(s) of participants in any of the DSM programs listed on these pages will not increase after 2009.

    c. Provide copies of any source documents, assessments, studies, analyses and workpapers which form the basis for the projected "impact on total

requirements (MWh)," the "impact on winter peak (MW)," and the "Impact on summer peak" figures presented in the table for each of the current DSM programs

29. Reference pages 8-32 to 8-43 of EKPC's 2009 IRP. Provide copies of any source documents, assessments, studies, analyses and workpapers which form the basis for each of the following:

    a. the annual numbers of participants in each of the new programs presented on pages 8-32 to 8-43.

    b. the annual "impact on total requirements" of each of the programs presented on pages 8-32 to 8-43.

    c. the annual "impact on winter peak" of each of the programs presented on pages 8-32 to 8-43.

    d. the annual "impact on summer peak" of each of the programs presented on pages 8-32 to 8-43.

30. Reference page 8-1 of EKPC's 2009 IRP. Please explain in detail how EKPC incorporates the risk of greenhouse gas emissions constraints, and the costs of managing CO_2 and N_2O emissions to comply with those constraints, in its optimization module.

31. Reference page 8-2 of EKPC's 2009 IRP. Please explain in detail how EKPC incorporates the possible future costs of managing CO_2 and N_2O emissions to comply with greenhouse gas emissions constraints in its review and analysis of existing electric power plants.

32. Reference pages 8-3, and 8-61 of EKPC's 2009 IRP. Please summarize EKPC's current understanding of the availability and cost of technology to reduce and manage or control the emissions of CO_2 and N_2O in existing and in new coal-fired electric power plants.

33. Reference the list of federal energy standards that will be implemented during the time frame covered by the 2009 IRP. Please explain if your energy and demand projections take into account each new federal energy standards, and if so, explain how each of these standards was taking into account.

Product	Date Standard Required
Supermarket Refrigeration	January 2009
Ranges, Ovens, & Microwave Ovens	March 2009
Linear Fluorescent Lamps & Incandescent Reflector Lamps	June 2009
Commercial HVAC Equipment	July 2009
Beverage Vending Machines	August 2009

Commercial Clothes Washers	January 2010
Small Electric Motors	February 2010
Residential Water Heaters, Pool Heaters, & Direct Heaters	March 2010
Residential Refrigerators & Freezers	December 2010
Clothes Dryers	June 2011
Room Air Conditioners	June 2011
Residential Central Air Conditioners & Heat Pumps	June 2011
Fluorescent Lamp Ballasts	June 2011
Battery Chargers & External Power Supplies	July 2011
Residential Clothes Washers	December 2011

34. Please explain if your energy and demand projections take into account the phasing out of incandescent light bulbs currently required by federal law starting in 2012 and, and if so, explain how it was taken into account.

35. Please explain the basis for assuming that Gallatin Steel will not make any efficiency improvements and sales to Gallatin Steel will not decrease during the period covered by the 2009 IRP.

36. Please state if Gallatin Steel sells steel to auto manufactures. If it does, please explain why you believe more stringent fuel standards will not result in decreased energy and demand from Gallatin Steel.

37. Please explain what role, if any, Solar Photovoltaic (PV) and Solar Hot Water played in the 2009 IRP.

38. Please explain what sources of information, if any, used to determine the future cost of Solar PV.

39. Please explain what congestion mitigation fees EKPC has paid in the past five years.

40. Reference page 5-3 of the 2009 IRP. Also reference page 5-5 which shows that your forecast for your energy requirements in 2020 decreased between 2004 and 2008 by 2,273,498 mwh per year. Please explain why you still believe you need Smith 1 if your forecast for energy sales has decreased since 2006 and 2004. In your answer please state if you agree that this 2,274,498 mwh decrease is approximately the same amount of energy that Smith 1 will produce on an annual net basis. Also in your answer, please make sure that you clearly identify when you are addressing meeting future peak demand needs and when you are addressing meeting future energy needs.

41. Please explain why Smith 1 is a lower cost alternative than three LM100 combustion turbines that EKPC had planned to build at the Smith Plant but subsequently decided not to install.

42. Please explain how your energy and demand forecasts take into account price elasticity in light of your past and future price increases.

43. Please explain your assumptions for coal availability to meet EKPC's projection coal consumption needs in 2018 and 2025 and the basis for these assumptions.

44. Please explain how each of the following were considered in the 2009 IRP:
   a) Ohio's Renewable Portfolio Standard.
   b) The Regional Greenhouse Gas Initiative (RGGI)
   c) Potential National Renewable Portfolio Standard
   d) Revised version of the Clean Air Interstate Rule
   e) Revised Maximum Achievable Control Technology (MACT) standard for Electric Generating Units (EGUs)
   f) 2006 PM2.5 National Ambient Air Quality Standard (NAAQS) and its implementation regulations
   g) 2008 Ozone NAAQS and its implementation regulations
   h) 2010 NOx NAAQS and its implementation regulations
   i) 2010 SOx NAAQS and its implementation regulations
   j) 2010 NOx and SOx secondary NAAQS and their implementing regulations.
   k) Revised New Source Performance Standards Subparts Y and OOO
   l) Potential regulation of coal combustion waste as a hazardous waste
   m) Regulation of new and existing sources under Clean Water Act Section 316(b).

45. Please explain what EKPC's plans are with regard to burning waste tires or tire derived fuel at EKPC's CFB units. Please include a description of any contracts EKPC has in this regard.

46. Please explain what EKPC's plans are with regard to burning biomass at any EKPC unit. Please include a description of any contracts EKPC has in this regard.

47. Reference page 5-5 of the 2009 IRP. Please explain why EKPC's forecast for 2020 energy requirement have decreased by over 11 percent between 2004 and 2008.

48. Please explain if the 2009 IRP considered the cost saving to its distribution cooperatives' distribution system capital improvements and operating and maintenance in evaluating the cost effectiveness of DSM programs. If so, please provide this analysis.

49 Reference page 5-7 of the 2009 IRP. Please state where is the well defined and justified base load needs in 2013 that are referenced. Please provide specific documents and page numbers.

50. Reference page 5-11 of the 2009 IRP. Please explain why you believe EKPC's region will experience a 0.7 percent population growth but EKPC's distribution cooperatives will experience a 1.5% percent population growth.

51. Reference page 5-12 of the 2009 IRP. Please provide the documents in which Navigant communicated or reported the results of its review of the referenced assumptions.

52. Reference page 5-13 of the 2009 IRP. It was predicted that total energy requirements would increase by 2% for residential and 3.3% for commercial and industrial in 2008. Please provide the actual 2008 numbers and the current projections for 2009. Please explain how the actual 2008 numbers and the current projections for 2009 change the projections for 2013 and 2023.

53. Please explain why the 2009 IRP does not change its projection of future transmission losses through 2028 in light of the new federal efficiency standard for transformers.

54. Reference page 5-16 of the 2009 IRP. Please explain why winter capacity drops from 3130 MW to 2720 MW from 2009 to 2010 and from 2685 MW in 2011 to 2675 in 2012.

55. With regard to supply side resources, please explain how the 2009 IRP considers supercritical pulverized coal (PC) units, ultra supercritical PC units, Integrated Gasification Combined Cycle units as well as co-generation and biomass fired CFBs. Please explain how the 2009 IRP considers combined cycle combustion turbines operating as a baseload resource with a long term natural gas contract. If this was considered, please explain whether GE H class combustion turbines were considered. Please explain what was the price of natural gas that you assumed for the long term contract. Please explain how the 2009 IRP considered LMS 100 combustion turbines operating as intermediate load resources.

56. Reference Table 1 at 2009 IRP page 7-2. Please explain what the difference is between "transmission loss" and "loss" and between EKPC Office use and Office Use.

57. Please explain the basis for your projections for per residential customers' electricity consumption from 2009 to 2028.

58. In calculating the 500,000 MWH saving from appliance improvements, please provide the per appliance consumption figures that were used for each appliance.

59. Please compare the 75% new homes with electric heat and 85% new homes with electric hot water to the current percentage of homes in your service territory with electric heat and electric hot water.

60. Please list all DSM or energy efficiency programs that have discontinued in the past 5 years.

61. Please explain why each of the following programs did not pass the qualitative assessment for DSM?

Residential

Low flow showerhead with faucet aerator & pipe insulation
Solar water heater
Room AC exchange & recycle program
ENERGY STAR Dishwashers
Refrigerator/Freezer Recycling
Remove old second refrigerators
Removed old second freezers
ENERGY STAR Freezers
ENERGY STAR Home electronics
ENERGY STAR Windows
ENERGY STAR Dehumidifiers
Heat pump dryer
Efficient pool pump
Well water pump
High efficiency outdoor lighting
LED lighting
Inclining block rates
Passive Solar (new construction)
Photovoltaics (customer sited)
Wind turbine (customer sited)

Commercial

High efficiency HVAC motors
Time of use rates
Combined heat & power
Stand-by generation program
Day lighting
Solar hot water
Photovoltaics
Wind turbine

Industrial/Other

Computer and electronics sector
Combined heat and power
Other onsite generation (conventional)
Photovoltaics
Wind turbine

LED Traffic signals

62. Please explain if EKPC is still evaluating any of the 7 wind proposals for out of state wind generation that EKPC received. Please also explain if any of these was the lowest priced option.

63. Please explain why the 2009 IRP assumes that EKPC will be running a CFL light bulb program after incandescent light bulbs are banned in the U.S. after 2014.

64. Please explain why the commercial load control for A/C program cannot go above 6000 participants?

65. Reference page 8-49 of the 2009 IRP. Please explain if the "emission-free" 200 MW power purchase agreement (PPA) is from wind generation, nuclear generation or some other generation source.

66. Reference page 8-49 of the 2009 IRP. Please explain what would be the economic consequence of moving the intermediary/peaking capacity additions planned for 2019 and 2020 up to 2012 and moving the additional baseload 278 MW planned for 2014 to 2020.

67. Reference page 8-49 of the 2009 IRP. Please explain if EKPC currently plans to have 278 MW of additional baseload capacity on line in 2014 or whether that date has slipped.

68. Please explain whether the 2009 IRP process included Smith 1 in the planning model as a given or was it a variable that could change.

69. Reference page 8-73 of the 2009 IRP. Please provide details of the Cooper Retrofit project mentioned including what activities will be undertaken as part of this retrofit project and what the costs will be .

70. Please explain why the 2009 IRP lists Dale 1 and 2 as 23 MW when they are greater than 25 MW each.

71. Reference page 8-117 of the 2009 IRP. The 2009 IRP claims the heat rate for the combustion turbines Smith 9 & 10 is between 9331 and 10045 btu/kwh. However, GE claims the heat rate for LMS 100 combustion turbines like the ones used at Smith 9 and 10 have heat rates of 6800 to 7200 btu/kwh. See GE Energy New High Efficiency Simple Cycle Gas Turbine – GE's LMS100™ at 10 available at http://www.ge-energy.com/prod_serv/products/tech_docs/en/downloads/ger4222a.pdf. Please explain the reasons for the higher heat rates assumed by EKPC.

72. Reference page 8-1 of the 2009 IRP. The 2009 IRP assumes that future combustion turbines would have a heat rate of over 12,000 btu/kwh. Please explain the

basis for this assumption and the implications this assumption has for resource selection and selection of capacity factors.

73. Reference page 8-120 of the 2009 IRP. Please explain that basis for stating that EKPC will need 17,914.81 gwh but will generate and buy at total of 23,083.92 gwh..

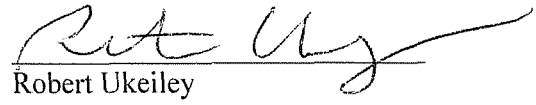
74. Please describe in detail the responses to the Request for Proposals (RFP) for renewable energy that EKPC received including type of generation, location of generation, location of point of delivery of the electricity, type of arrangement (i.e. PPA, ownership of asset etc) cost of electricity in kwh, capacity offered if any.

75. Please explain how the 2009 IRP considered reducing demand and energy requirements through upgrades in efficiency of distribution cooperatives' distribution systems such as increased efficiency in transformers.

76. Please provide a copy of all documents reviewed in answering these data requests which have not previously been provided.

77. For each data request, please state the name and position of who was involved in providing the answer.

Respectfully submitted,



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Dated: July 23, 2009

CERTIFICATE OF SERVICE

I certify that I mailed a copy of this above by first class mail on July 23, 2009 on the following:

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