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RECEIVED

FEB 07 2013 PUBLIC SERVICE COMMISSION

Via Overnight Mail

February 6, 2013

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

Re: <u>Case No. 2012-00578</u>

Dear Mr. Derouen:

Please find enclosed the original and ten (10) copies of KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s FIRST SET OF DATA REQUESTS TO KENTUCKY POWER COMPANY for filing in the above-referenced docket.

By copy of this letter, all parties listed on the Certificate of Service have been served. Please place this document of file.

Very Truly Yours,

mil-P.K-

Michael L. Kurtz, Esq. Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq. **BOEHM, KURTZ & LOWRY**

MLKkew Attachment cc: Certificate of Service Quang Nyugen, Esq.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by mailing a true and correct copy via electronic mail (when available) and regular U.S. Mail to all parties on this 6th day of February, 2013.

Michael L. Kurtz, Esq. Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq.

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RECEIVED

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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IN THE MATTER OF: THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AUTHORIZING THE TRANSFER TO THE COMPANY OF AN UNDIVIDED FIFTY PERCENT INTEREST IN THE MITCHELL GENERATING STATION AND ASSOCIATED ASSETS; (2) APPROVAL OF THE ASSUMPTION BY KENTUCKY POWER COMPANY OF CERTAIN LIABILITIES IN CONNECTION WITH THE TRANSFER OF THE MITCHELL GENERATING STATION; (3) DECLARATORY RULINGS; (4) DEFERRAL OF COSTS INCURRED IN CONNECTION WITH THE COMPANY'S EFFORTS TO MEET FEDERAL CLEAN AIR ACT AND RELATED REQUIREMENTS; AND (5) FOR ALL OTHER REQUIRED APPROVALS AND RELIEF FEB 07 2013

PUBLIC SERVICE COMMISSION

Case No. 2012-00578

FIRST SET OF DATA REQUESTS OF KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC. TO KENTUCKY POWER COMPANY

Michael L. Kurtz, Esq. Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq. **BOEHM, KURTZ & LOWRY** 36 East Seventh Street, Suite 1510 Cincinnati, Ohio 45202 Ph: 513.421.2255 Fax: 513.421.2764 <u>mkurtz@BKLlawfirm.com</u> <u>kboehm@BKLlawfirm.com</u> ikylercohn@BKLlawfirm.com

COUNSEL FOR KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

Dated: February 6, 2013

DEFINITIONS

- 1. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, notices, confirmations, telegrams, pamphlets, notations of any sort concerning conversations, telephone calls, meetings or other communications, bulletins, transcripts, diaries, analyses, summaries, correspondence investigations, questionnaires, surveys, worksheets, and all drafts, preliminary versions, alterations, modifications, revisions, changes, amendments and written comments concerning the foregoing, in whatever form, stored or contained in or on whatever medium, including computerized memory or magnetic media.
- 2. "Study" means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion.
- 3. "Person" means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
- 4. A request to identify a natural person means to state his or her full name and residence address, his or her present last known position and business affiliation at the time in question.
- 5. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), number of code number thereof or other means of identifying it, and its present location and custodian. If any such document was, but is no longer in the Company's possession or subject to its control, state what disposition was made of it.
- 6. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
- 7. "And" and "or" should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
- 8. "Each" and "any" should be considered to be both singular and plural, unless specifically stated otherwise.
- 9. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.
- 10. "You" or "your" means the person whose filed testimony is the subject of these interrogatories and, to the extent relevant and necessary to provide full and complete answers to any request, "you" or "your" may be deemed to include any person with information relevant to any interrogatory who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness' testimony.
- 11. "AEP" means American Electric Power and/or any of their officers, directors, employees, or agents who may have knowledge of the particular matter addressed.
- 12. "Company" means Kentucky Power Co. d/b/a American Electric Power, and/or any of their officers, directors, employees or agents who may have knowledge of the particular matter addressed.

INSTRUCTIONS

- 1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify and produce for discovery and inspection each such document.
- 2. These interrogatories are continuing in nature, and information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Kentucky Industrial Utility Customers. Any studies, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.
- 3. Unless otherwise expressly provided, each interrogatory should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.
- 4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.
- 5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.
- 6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.
- 7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.
- 8. Responses to requests for revenue, expense and rate base data should provide data on the basis of Total Company as well as Intrastate data, unless otherwise requested.

KIUC'S FIRST SET OF DATA REQUESTS TO KENTUCKY POWER COMPANY PSC CASE NO. 2012-00578

<u>Weaver</u>

- Q1.1. With regard to the Options discussed on page 5 of Mr. Weaver's testimony:
 - a. What was the basis for selecting a retirement date of June 2015 for Big Sandy 2 ("BS2")?
 - b. In Case No. 2011-00401, the Company proposed to operate Big Sandy 2 through the end of 2015 until it began an extended outage to tie-in the new environmental equipment in early 2016. Please explain why the Company now proposes to retire Big Sandy 2 in June 2015 instead of at the end of 2015. Provide a copy of all studies that address the timing of the BS 2 retirement. Identify which of those studies were relied on to accelerate the retirement date.
 - c. Please explain why the Company proposes to retire Big Sandy 2 prior to the summer 2015 peak rather than after the summer peak. Provide a copy of all studies that address the timing of the Big Sandy 2 retirement prior to the summer 2015 peak rather than after the summer peak. Identify which of those studies were relied on to make the decision to retire in June rather than September or October.
- Q1.2. With regard to Options 1,2,3,4 and 6, the Mitchell capacity is acquired beginning January 2014.
 - a. Please provide all reasons why the Company assumed that Mitchell is acquired prior to the time that Big Sandy 1 ("BS1") and BS2 are retired.
 - b. What would be required to be acquire the Mitchell capacity when Big Sandy 1 and 2 are retired?
 - c. Provide all reasons why the acquisition of Mitchell cannot be delayed until BS2 is retired. Provide a copy of all analyses, source documents and/or calculations performed by or on behalf of the Company.
- Q1.3. In the 6 options identified by the Company, Big Sandy 1 ("BS1") is either retired, repowered, or converted to gas at different times. Please explain the following:
 - a. In Options 1, 4, and 6, please explain the basis for selecting "by June 2015" as the retirement date for BS1, since the consent decree allows it to operate until December 2015 before environmental upgrades must be made?
 - b. In Option 2 what was the basis for selecting "by April 2015" as the retirement date for BS1?
 - c. In Option 3, what was the basis for selecting "by June 2017" as the CC repowering date for BS1? In other words what was the basis for determining that would be the earliest it could be repowered. Please provide a timeline of milestones necessary to achieve conversion by this date.

- d. In Option 5, what was the basis for selecting "by July 2015" as the gas conversion date for BS1, particularly given the consent decree allows until December 2015 before environmental upgrades must be made? Please provide a timeline of milestones necessary to achieve conversion by this date.
- Q1.4. What studies have been performed to reach the decision that BS1 should be retired? Please provide all reports, analyses, workpapers, and documentation of any type that was produced from conducting those studies. If no studies were performed, please explain why not. This information should be provided electronically with all formulas intact and no pasted in values.
- Q1.5. For continued operation on coal at BS1, please provide year by year estimates of environmental upgrade capital costs, environmental upgrade O&M costs, and other capital addition requirements. Please provide a description of each environmental upgrade investment and the capital addition investment required. Also, provide the revenue requirement model with data assumptions and provide the associated yearly revenue requirement costs for each capital investment and for each capital addition, and provide all O&M expenses through the planning period. This information should be provided electronically with all formulas intact and no pasted in values.
- Q1.6. For continued operation on coal at BS2 (Option 1), please provide year by year estimates of environmental upgrade capital costs, environmental upgrade O&M costs, and other capital addition requirements. Provide the revenue requirement model with data assumptions including the capital environmental upgrade investment and capital additions for each capital cost, and O&M expenses through the planning period. This information should be provided electronically with all formulas intact and no pasted in values.
- Q1.7. Please state whether the list in Exhibit SCW-4 reflects all anticipated environmental upgrades required at Mitchell. Please state where these costs may be found in the Company's workpapers/economic analyses of the Mitchell acquisition option.
- Q1.8. Does the Company anticipate that the EPA will address the issues with the CSAPR regulations, and will eventually implement a modified CSAPR rule?
 - a. If so, when does the Company believe the modified CSAPR rule will be implemented? If not why not?
 - b. Has the Company incorporated estimates for these costs for BS1 and Mitchell in its economic evaluations? If not, why not, and if so, where in the Company's workpapers can these costs be found?
 - c. If not, please explain what the Company anticipates will happen to the CSAPR rule. For example does the Company assume that CAIR will continue and if so, where in the Company's workpapers can these costs be found.
 - d. Assume that CSAPR had passed as the EPA had intended. Please explain what modifications and annual costs would have been necessary at Mitchell, and BS1 to comply with CSAPR.
- Q1.9. With regard to both the 20% and 50% acquisitions of Mitchell, provide the revenue requirement model with data assumptions including the yearly capital environmental upgrade investment and

capital additions for each capital cost through the planning period. This should include all revenue requirements (capital, O&M, environmental, etc.) that were included in the economic evaluations. This information should be provided electronically with all formulas intact and no pasted in values.

- Q1.10. Concerning the BS1 retirement and replacement with a new CC unit, conversion to a repowered CC unit, and conversion to a gas fired steam turbine unit, provide the revenue requirement model with data assumptions including the yearly capital environmental upgrade investment and capital additions for each capital cost through the planning period. This should include all revenue requirements (capital, O&M, environmental, etc.) that were included in the economic evaluations. This information should be provided electronically with all formulas intact and no pasted in values.
- Q1.11. Please supply all workpapers and analyses that were developed to create the table found in Exhibit SCW-4 and supply the table itself. Please provide this information electronically, with all formulas intact, and no pasted in values.
- Q1.12. Please supply all workpapers and analyses that were developed to create the Table 3 found in Mr. Weaver's testimony at page 22, and supply the table itself. Please provide this information electronically, with all formulas intact, and no pasted in values.
- Q1.13. On page 12 of Mr. Weaver's testimony, in referring to Mitchell he states that "it is not at all certain that additional retrofit requirements would be required in any event." Has the Company performed any analysis to explore what additional environmental regulations and what additional retrofits could realistically be required within the next 5 10 years? If so, please provide any analyses performed. Please supply this information electronically with all formulas intact.
- Q1.14. On page 20 of Mr. Weaver's testimony, he discusses the necessary gas pipeline infrastructure (Options 2 and 3). Please provide any study or analyses that exist examining the requirements (tasks, costs, etc) to develop the appropriate pipeline infrastructure in each of the options. Also, include the same information for Option 5 in which BS1 is converted to a gas-fired steam turbine unit.
- Q1.15. Why didn't Mr. Weaver mention Option 5 at page 20 in his discussion of pipeline infrastructure?
- Q1.16. Please supply a revised Table 1-1 in Exhibit SCW-1 showing the winter peak forecast for Kentucky Power and AEP-East.
- Q1.17. With regard to the highest summer and winter peaks that occurred in the 2006/2007 time period, what events caused such high peaks at those times, and what load loss has occurred since then that resulted in the load being much lower beginning in 2012 in Table 1-1 in Exhibit SCW-1.
- Q1.18. Page 4 of Exhibit SCW-1 states that for the initial 2010/11 through 2015/16 Planning Years KPCo gave notice to opt-out of the PJM RPM 3 year forward capacity auction and to meet its resource obligation through the Fixed Resource Requirement ("FRR") construct. When that decision was made, were any analyses conducted? If so, please provide the analyses, electronically, with all formula intact, with no pasted in values.
- Q1.19. Page 8 of Exhibit SCW-1 states that Table 1-3 (Reserve Margin Table) was prepared assuming that the Company would continue to elect to participate in PJM's capacity auction construct as a

self planning entity. Please supply a revised table along with an explanation of all changes that would have to be made assuming a decision was made to participate in the PJM-RPM under the capacity auction construct.

- Q1.20. Please explain why column 17 (EFORd values) of Table 1-3 and Table 1-4 are different. Also, please supply Tables 1-3 and 1-4 electronically with all formulas intact and no pasted in values.
- Q1.21. Table 1-4 in Exhibit SCW-1 page 10 of 15 indicates in 2026 a 300 MW CC unit was added in 2026. However, SCW-5a page 1 of 2, Option 6 indicates that a 381MW BFCC unit was added in 2026. Please explain why the two tables are different.
- Q1.22. Please explain how the important characteristics (capacity, heat rate, fuel cost, availability assumptions, environmental, duct firing, etc) and costs (capital cost per kW, capital cost dollars, capital revenue requirements, cap adds, cap add revenue requirements, O&M) of all of the types of CTs and CC units modeled in the study were developed. Please provide a copy of all source documents and all workpapers in which the characteristics and costs were developed, and supply any revenue requirement models with all input assumptions and output results included. Please supply these workpapers electronically with all formulas intact and no pasted in values. Note that there are several examples of different types of CC units to compare including the 762 MW BFCC unit in Option 2, the 745 MW repowered CC unit in Option 3, the 352 MW CC unit added in 2021 in Option 4, the 381 MW BFCC unit added in 2026 also in Option 4, and the 300 MW CC unit included in Table 1-4 of Exhibit SCW-1.
- Q1.23. Please explain why the Mitsubishi 2x1 M-501 GAC was selected as opposed to GE or Siemens CC units for Options 2 or 3 as discussed at page 19 of Mr. Weaver's testimony.
- Q1.24. Concerning Table 3 on page 22 of Mr. Weaver's testimony, please supply the workpapers that were used to create that table, electronically with all formulas attached. Also, supply any other reports, analyses, and documentation of any type that was used to develop the data found in that table. Also, please supply all analyses performed to develop revenue requirements associated with these capital costs.
- Q1.25. If the Company developed any spending curve analyses, any busbar cost analyses, any screening curve analyses associated with different resource options it evaluated, please supply that information. Please supply these workpapers electronically with all formulas intact and no pasted in values.
- Q1.26. At page 31 of Mr. Weaver's testimony, he states "for every +/- \$100 million CPW difference between any two options, there is a +/- \$2.00 per Mwh levelized annual impact on KPCo's generation cost/revenue requirement over the subsequent economic life cycle analyzed-expressed in 2011 dollars." Please provide workpapers electronically, with all formulas intact and no pasted in values, demonstrating how these results were derived.
- Q1.27. KIUC is in the process of acquiring a Strategist license, and requests the Company to supply, electronically, the following for each option the Company ran to produce the results found in Exhibit SCW-5:
 - a. All workpapers, models, spreadsheets, revenue requirement studies, and any other analyses of any kind used to create the data assumptions and results.

- b. LFA, GAF, and Proview output reports for each case.
- c. All Strategist databases (input files and output files), containing input assumptions and output results. This includes any .LFA, .GAF, .PRV, .SAV, .FSV, .INP, .OUT, .REP, .DIA, etc that the Company created to produce the study results. These files should allow KIUC to replicate the results for each of the 11 unit disposition options that the Company developed and reported in Exhibit SCW-5.
- Q1.28. For all tables and graphs found in Exhibit SCW-5 (parts a through e) provide all workpapers, documentation, emails, memos, letters, reports or analyses of any kind that were used to create the tables and graphs. Please provide this information electronically with all formulas intact and no pasted in values.
- Q1.29. For all of the STRATEGIST analyses, please provide the workpapers, analyses, assumptions, reasons for the inputs, etc., created to produce the following assumptions that were entered.
 - a. Minimum reserve margin target, if different than 15.4% found in Table 1-3 in Exhibit SCW-1.
 - b. Any other reserve margin, emergency energy, energy margin, LOLH, constraints modeled.
 - c. Emergency energy cost.
 - d. Explain the end effects treatment selected and why the approach was selected.
- Q1.30. For each of the 11 unit disposition options that the Company developed, please provide the workpapers, analyses, assumptions, reason for the inputs, etc, created to produce the following assumptions that were entered into STRATEGIST.
 - a. First and last year available.
 - b. Cumulative Minimum, Cumulative Maximum, Incremental Number to Add, Minimum Number to Add
 - c. Restricted combinations
- Q1.31. Please supply all workpapers containing the development of the capital costs/revenue requirements necessary to prepare those data assumptions for entry into STRATEGIST. Please provide this information electronically, with all formulas intact and no pasted in values.
- Q1.32. It appears Mr. Weaver received commodity forecasts from Mr. Bletzacker in the Fundamental Analysis Group. Please provide all workpapers and analyses that were performed to convert the data that was received from Mr. Bletzacker into the format found in Exhibit SCW-3 and along with the analyses, provide Exhibit SCW-3 electronically. Provide all analyses electronically, with all formulas intact and no pasted in values.
- Q1.33. Please supply the workpapers that were used to convert all commodity forecasts received from Mr. Bletzacker into Strategist inputs for the Mitchell acquisition study. Please provide this information electronically, with all formulas intact and no pasted in values.

- Q1.34. This concerns the Company's more recent forecasts. Please provide all models, workpapers, documentation, assumptions, emails, memos, letters, reports, or analyses of any kind that have been used to create more recent commodity forecasts than those that are found in Exhibit SCW-3. KIUC believes it likely that the Company/AEP has developed a more recent set of commodity forecasts, and seeks to acquire that information in the same format. Please provide this information electronically, with all formulas intact and no pasted in values. This should include Low, Base, High, No Carbon, and Early Carbon forecasts.
- Q1.35. Please supply workpapers that may have been used to convert the more recent commodity forecasts into Strategist inputs. Please provide this information electronically, with all formulas intact and no pasted in values.
- Q1.36. Please provide the Strategist databases (this includes any .LFA, .GAF, .PRV, .SAV, .FSV, .INP, .OUT, .REP, .DIA files, etc) that may have been created using the more recent commodity forecasts. Also, please provide a narrative description of the purpose of the Strategist analyses that were performed using the more recent commodity price forecasts. Finally, please supply a list of data changes that were made to create these Strategist databases compared to the Strategist databases used in the Mitchell acquisition studies. Please provide this information electronically, with all formulas intact and no pasted in values.
- Q1.37. On page 38 of his testimony, Mr. Weaver mentions that the Company believes there would be greater potential for a successful competitive solicitation of replacement baseload capacity and energy if the tranche-size were closer to 250 MW, roughly the size of Big Sandy 1. Given the Company's stated concerns about conducting an RFP, what basis does it have for suggesting that a 250 MW tranche size might be successful?
- Q1.38. On page 41 of Mr. Weaver's testimony he discussed an additional Strategist based analysis that was performed to determine the amount that the Combined Cycle unit would have to be decreased in order for the CC option to be a less expensive alternative than option 6. Please provide an explanation of the step by step process performed to develop the results, and provide a copy of all analyses, electronically with all formulas intact, performed to develop the results. Please be sure to provide the calculations that led to the numbers on lines 9, 10, 20, and 21.
- Q1.39. Please explain how 100 risk iterations were generated for the Aurora analyses. Please explain fully. Also, when the 11 options are each run through the Aurora model, are the 100 cases exactly the same for each of the 11 options performed? Is there a way to identify the 100 cases that were performed for each of the 11 options? Please explain.
- Q1.40. Please provide all files containing input assumptions and output reports from Aurora used to create the commodity forecasts (coal, CO2, on-peak/off-peak PJM energy prices, natural gas prices, capacity values), which KIUC understands are named:
 - a. PriceJForecast_Nominal_FTCA_CSAPR2.xls and
 - b. Price_Forecast_Real_FTCA_CSAPR2.xls
- Q1.41. Please provide all files containing input assumptions and output reports from Aurora used to create the Monte Carlo Risk Assessment that Mr. Weaver discusses at page 42 of his testimony, which KIUC understands are named:

- a. KPCOStochastics.xls.
- Q1.42. For every table in Exhibit SCW-1 between pages 9 and 15, please provide the workpapers, spreadsheets, analyses of any type that led to the tables and graphs found in the Exhibit. Please provide this information electronically with all formulas intact and no pasted in values.
- Q1.43. For all tables and graphs found in Exhibit SCW-6 provide all workpapers, documentation, emails, memos, letters, reports analyses of any kind that were used to create the tables and graphs. Please provide this information electronically with all formulas intact.
- Q1.44. Provide the following historic annual data separately for Mitchell 1 and 2 covering 2000 through 2011 in electronic spreadsheet format:
 - a. Generation
 - b. Capacity Factor
 - c. MBTUs
 - d. Fuel Cost
 - e. Forced Outage Rate
 - f. O&M Expense
 - g. Capital Additions cost
- Q1.45. Please provide the following historic annual fuel price purchase information for any consequential coal purchases the Company has made covering 2000 through 2011 in electronic spreadsheet format:
 - a. Name and characteristics of coal contract
 - b. Delivered coal price by coal contract
 - c. Tons of coal delivered by coal contract
 - d. MBTUs of coal delivered by coal contract
- Q1.46. Please proved historic annual natural gas price information based on purchases of gas the Company has made over the period 2000 through 2011. Provide the purchase quantity in MBTUs and the price paid for the purchases.
- Q1.47. Please provide coal price indices from a reliable source that the Company has followed and has in its possession covering CAPP, NAPP, and Powder River Basin coal, such as from Platt's or some other source the Company follows. Provide the forecasts that the Company has collected going back as far as 1990 if possible. If numerous forecasts are available each year, it is sufficient to provide one from the summer period, and one from the winter period of each year.
- Q1.48. Provide the same information as requested in the prior question but for Henry Hub natural gas.

- Q1.49. Please provide the Company's historic load shape by hour for each hour in 2011. Please supply this electronically.
- Q1.50. Regarding off-system sales, for the period of 2000 2011:
 - a. Please discuss the different categories of off-system sales that KPCo has.
 - b. Please provide off-system energy by category by year. Include separately, capacity (MWs), energy (MWHs) and sales revenue (\$) by year and by category. Please supply this information electronically in spreadsheet format.
 - c. For each category of off-system sales, please explain any sharing mechanism that exists between ratepayers and shareholders, and provide a citation to the authority for any sharing mechanism that may exist, and explain the mechanism.
 - d. If a sharing mechanism exists, for the revenue received in part b above, please identify what portion of the revenue is allocated to the Shareholders and what part is allocated to ratepayers.
 - e. Please explain how the Company identifies what portion of the revenue is profit and what portion is fuel and other cost recovery.
- Q1.51. For the Mitchell modeling analyses performed using Strategist and Aurora:
 - a. How were the same categories of off-system sales reflected in the modeling performed for the Mitchell analysis? If they were not modeled, please explain why not. Please provide separate explanations for Strategist and Aurora.
 - b. How were the OSS margins reflected in Strategist and Aurora? If the Company did not share the OSS margins between shareholders and customers in the analyses, then please explain why not. Please provide separate explanations for Strategist and Aurora.
 - c. Please provide all calculations showing the sharing of OSS margins between shareholders and customers in each of the analyses.
- Q1.52. Please provide a description of all actual attempts and all attempts that were considered by AEP to sell the Mitchell generating units or the entire plant to one or more non-affiliated entities at any time during the last 3 years. Please describe the current status of each such attempt.
- Q1.53. Please provide a copy of all studies, analyses, and/or offers/solicitations by AEP to sell the Mitchell generating units or the entire plant to one or more non-affiliated entities at any time during the last 3 years. Please describe the purpose of each such study, analysis, and/or offer/solicitation, how AEP and who at AEP considered the results or recommendations of each such study, analysis, and/or offer/solicitation, and provide the reasons why the option was or was not pursued, and if pursued, the manner in which it was pursued.

Bletzacker

- Q1.54. At page 3 of his testimony, Mr. Bletzacker describes what a fundamental analysis is and what it is used for, and he states that AEPSC primarily develops these analyses for use by the regulated operating companies for long-term planning.
 - a. What else besides long-term planning are these used for (power prices, and other commodity forecasts)?
 - b. How often are these types of commodity forecasts developed?
 - c. Please provide any documentation that exists concerning AEP's policy for the development and use of these commodity forecasts. For example, is there a policy requirement that these be created monthly, quarterly, etc, and is there any requirement that the Operating Companies make use of the same forecasts for planning studies. Please provide the documentation and explain in detail.
 - d. Did AEP use the same forecasts for evaluating Mitchell in Virginia and West Virginia as was used in Kentucky? If not please provide the commodity forecasts that were used in studies in those states, electronically with all formulas intact and no pasted in values. Please describe the studies that were performed in those states using these forecasts to evaluate Mitchell and explain why different forecasts were prepared for the studies in the different states.
 - e. Please list all departments within any AEP or any Operating Company that received any commodity forecast used for any studies performed to evaluate the benefits of acquiring the Mitchell units, including the Operating Companies in Kentucky, Virginia, and West Virginia, etc.
 - f. Please provide the 3 most recent commodity price forecasts, used for any purpose, for all of the commodities including on and off-peak energy prices, capacity prices, CO2 costs, natural gas prices, and coal prices produced by AEPSC. Please explain the purpose that these 3 forecasts have been used for and the major assumptions that were used to create the forecasts. Please provide the information electronically with all formulas intact and no pasted in values.
- Q1.55. At page 4, line 20 of his testimony, Mr. Bletzacker provides a discussion of how the gas price forecast is developed. He states it begins with an analysis of the consultancies' supply, demand and price relationship which produces a price elasticity of supply over time. Please supply each of those consultancies "supply, demand and price relationships". Please provide all reports, analyses, workpapers, letters, documentation of any kind, for each consultancy electronically, with all formulas intact and no pasted in values.
- Q1.56. Please supply the workpapers used to develop elasticities that are then applied to the Aurora model and provide a narrative description of how these elasticities were developed.
- Q1.57. Mr. Bletzacker also states on page 4 at line 23 that the elasticities are applied to the AuroraXMP natural gas burns, and that produces a corresponding change in gas prices. Then those prices are run through AuroraXMP which results in a change in gas burn. The process is iterative and the ultimate goal appears to determine the prices as which the gas burn change is de minimus.

Please supply additional detailed documentation or a narrative description explaining more about how this process works.

- Q1.58. Please supply the workpapers and analyses that led to the development of the graph found on page 5 of Mr. Bletzacker's testimony. Please supply those analyses electronically, with all formulas intact and no pasted in values.
- Q1.59. Provide all analyses, input assumptions, outputs, models etc, used in the development of the forecast gas prices based on the price elasticity-fuel burn-AuroraXMP approach. Please supply those analyses electronically, with all formulas intact and no pasted in values.
- Q1.60. What changes were made to data assumptions to derive the high band gas price forecast versus the low band forecast and what methodology was used to derive those forecasts? Also to derive the No Carbon and Early Carbon forecasts? Provide all analyses, input assumptions, outputs, models etc, used in the development of these gas price forecasts (low, high, No Carbon, and Early Carbon) forecasts. Please supply those analyses electronically, with all formulas intact and no pasted in values.
- Q1.61. Was a similar price elasticity approach used to derive the coal price forecast or the CO2 price forecasts? If not, what approach was used to derive the coal and CO2 price forecast? Provide all analyses, input assumptions, outputs, models etc, used in the development of all of the coal and CO2 forecasts. Please supply those analyses electronically, with all formulas intact and no pasted in values.
- Q1.62. Was a price elasticity approach used to derive the on-peak and off-peak market price forecast? Please provide a detailed explanation how the forecasts were developed for all of the cases (Low, Base, High, No Carbon, Early Carbon). Provide all analyses, input assumptions, outputs, models etc, used in the development of all of the coal and CO2 forecasts. Please supply those analyses electronically, with all formulas intact and no pasted in values.
- Q1.63. Does the Company believe that if it first had a Base Case fuel forecast, and wanted to create either a high or low gas price forecast, that it would be necessary to make similar large changes to coal fuels as well? In other words, would the development of a high gas forecast case necessarily require the creation of a correlated (high) coal price forecast? Please explain.
- Q1.64. Does the Company believe that natural gas prices and coal prices have historically moved in the same direction and with similar changes? In other words, historically, when there have been large movements in natural gas prices, have there also been similar large movements in coal prices, either up or down? Please supply evidence to support this answer.
- Q1.65. Mr. Bletzacker's testimony, at page 8, line 9 explains how natural gas will remain volatile while coal will be more stable. Doesn't that suggest that gas prices might be volatile and increase rapidly, while coal prices might be more stable? Please discuss.
- Q1.66. At page 11 of Bletzacker's testimony, he equates a \$10/tonne allowance price to a \$10/MWH increase in plant operating costs. Please supply the calculations and assumptions that led to that relationship.

McDermott

- Q1.67. Please describe all reviews that Dr. McDermott performed of the Company's fuel forecasts. For each such review, please supply all documentation, workpapers, analyses, etc. Please supply these analyses electronically, with all formulas intact and no pasted in values.
- Q1.68. Refer to page 11 starting at line 4 of Dr. McDermott's Direct Testimony. Other than discussions with the Company, what analyses did Mr. McDermott perform to conclude that the projections of market prices that Mr. Weaver used were reasonable, and that they represented the lower bound of bid prices that bidders in an RFP might submit if in fact KPCo were to conduct an RFP? Please supply all documentation, workpapers, analyses etc performed by Dr. McDermott to reach this conclusion. Please supply these analyses electronically, with all formulas intact and no pasted in values.
- Q1.69. Refer to the Direct Testimony of Dr. McDermott.
 - a. Please provide a copy of all documentation, such as an engagement agreement, letter, or email correspondence, that describes the scope of review for which AEP retained Dr. McDermott.
 - b. Refer to page 2 line 20 through page 3 line 1 regarding the scope of Dr. McDermott's review on behalf of AEP. Please list, source, and describe the traditional regulatory principles.
 - c. Refer to page 3 lines 4 7 regarding the scope of Dr. McDermott's review on behalf of AEP. Please list, source, and describe the regulatory policies.
 - d. Please provide a copy of all independent quantitative analyses performed by Dr. McDermott. If none, then please so state.
- Q1.70. Please describe in detail the scope of Dr. McDermott's review of the quantitative analyses performed by AEP using Strategist and Aurora and described in the Direct Testimony of Mr. Weaver, including, but not limited to, the sources and assumptions used for fuel prices and market prices, the costs of constructing new generation, and the operating characteristics and performance of the Company's proposed alternative generation portfolios. Provide a copy of all notes and other documentation of the review performed by Dr. McDermott. If none, then please so state.
- Q1.71. Please describe in detail the scope of Dr. McDermott's review of all alternative generation portfolios that were not considered or modeled by AEP. If none, then please so state.
- Q1.72. Refer to page 3 line 19 through page 4 line 2 of Dr. McDermott's Direct Testimony wherein he states: "It is unnecessary for Kentucky Power to conduct a full RFP process since the analysis conducted by the Company includes evaluations that approximate price bids that would result from an RFP process."
 - a. Please provide all quantitative or other independent analyses performed by or relied on by Dr. McDermott in support of the conclusion that the Company's "evaluations" approximate price bids that would result from an RFP process." If none, then please so state.

- b. Please explain how Dr. McDermott can be certain that the Company's "evaluations" approximate price bids that would result from an RFP process."
- c. Does Dr. McDermott agree that the best test of whether the Company's "evaluations" approximate price bids that would result from an RFP process would be to conduct an RFP process? Please explain your response.
- d. Please provide all reasons why Dr. McDermott would oppose an actual RFP to determine the prices that would result from an RFP process. Please provide support for all assertions or claims, including, but not limited to, studies, information provided by AEP, and industry data.
- e. Did Dr. McDermott or KPCo conduct any type of market survey to identify potential resources that might bid into a KPCo RFP if KPCo were to conduct one? If not, why not, if so, please supply all documentation, workpapers, analyses etc performed. If so, please supply these analyses electronically, with all formulas intact and no pasted in values.
- Q1.73. Assuming that no market surveys were conducted, what formal or informal analyses were performed by Dr. McDermott and/or any other relevant AEP or KPCo employees regarding conducting an RFP:
 - a. The name of specific entities and resources that might bid into an RFP if one was held, whether just for 250 MW or up to 800 MW. If no specific resources were considered explain what generic kinds of resources known to exist in PJM were considered?
 - b. What profit margin would be necessary for the bidders to recover in order for them to be willing to submit a bid?
 - c. What capital structure would they likely have?
 - d. What length of time would they be willing to supply their resources for?
 - e. In general what assumptions did they consider that a bidder would have to make in order to be willing to submit a bid?
 - f. If no consideration formal or informal was made, please provide an answer to the questions above, based on Mr. McDermott's or AEP's experience.

<u>Becker</u>

Q1.74. Mr. Becker's testimony discusses that AEP compared its commodity forecasts to those in its possession from other companies including CERA, PIRA, and Wood Mackenzie. Please provide all forecasts from these consultants and comparisons that were performed with these forecasts and any other forecasts such as NYMEX or EIA forecasts. Please provide this information electronically with all formulas intact and no pasted in values.

<u>Wohnhas</u>

Q1.75. Refer to RKW – Exhibit 4. Please provide a copy of all assumptions, calculations, and workpapers, including electronic workpapers in live format with cell formulas intact and all workpapers used to develop inputs to these workpapers in live format with cell formulas intact.

Also, please provide a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers. Provide the source documents in live format with cell formulas intact, to the extent live versions of these source documents are available.

- Q1.76. Refer to RKW Exhibit 4. Please provide the actual amount of each revenue and expense line item for 2007 through 2010 quantified on a basis similar to the amounts reflected for each line item in the "current" column for 2011.
- Q1.77. Refer to RKW Exhibit 4. Please provide the actual amount of each revenue and expense line item for 2012 quantified on a basis similar to the amounts reflected for each line item in the "current" column for 2011.
- Q1.78. Refer to RKW Exhibit 4. Please describe in detail how the Company calculated each of the line item amounts in the column entitled "Asset Transfers and Pool Elimination."
- Q1.79. Refer to RKW Exhibit 4 line 20. Please provide the weighted cost of capital and the weighted grossed-up cost of capital used for the calculations of the amount on this line by component. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.80. Refer to RKW Exhibit 4. Please provide an updated version of this exhibit using 2012 actual results for the "Current" column and updating the "Asset Transfers and Pool Elimination" accordingly. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.81. Refer to RKW Exhibit 4. Please provide a version of this exhibit based on the Company's 2013 budgeted/projected results. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.82. Refer to RKW Exhibit 4. Please provide a version of this exhibit based on the Company's 2014 budgeted/projected results. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.83. Refer to RKW Exhibit 4. Please provide the amount of additional OSS revenues and margins due to the acquisition of Mitchell reflected in the "Change" column. Provide the amounts of the additional OSS margins that will be retained by the Company. Provide all assumptions, calculations, and workpapers, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.84. Refer to RKW Exhibit 4. Please disaggregate the "Change" column into the effects on each form of ratemaking recovery, i.e., base rates, FAC, and ECR, and provide all calculations and workpapers, including electronic spreadsheets with formulas intact.
- Q1.85. Please provide a copy of the Company's 2013 and 2014 operating budgets and/or forecasts.

- Q1.86. Refer to RKW Exhibit 4 and the 2011 Form 1 for the Company. Please reconcile the amounts for Pool Energy Sales reported in the "current" column on RKW-Exhibit 4 of \$30,830,000 with the amount reported in the Form 1 on page 327 of \$67,170,302.
- Q1.87. Refer to RKW Exhibit 4 and the 2011 Form 1 for the Company. Please reconcile the amounts for Pool Energy Purchases reported in the "current" column on RKW-Exhibit 4 of \$15,290,000 with the amount reported in the Form 1 on page 327 of \$60,726,313.
- Q1.88. Please provide the amount of the Company's capacity equalization payments pursuant to the Interconnection Agreement included in existing base rates. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers.
- Q1.89. Please provide the amount of the Company's capacity equalization payments pursuant to the Interconnection Agreement by month for the period January 2011 through the most recent month for which actual information is available. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers. Please consider this request continuing in nature and supplement the response each month as actual information for that month is available.
- Q1.90. Please provide the amount of the Company's capacity equalization payments pursuant to the Interconnection Agreement included in ECR rates by month for the period January 2011 through the most recent month for which actual information is available. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers. Please consider this request continuing in nature and supplement the response each month as actual information for that month is available.
- Q1.91. Please provide the Company's budgeted capacity equalization payments pursuant to the Interconnection Agreement by month for calendar year 2013. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers. Please consider this request continuing in nature and supplement the response each month as actual information for that month is available.
- Q1.92. Please provide the Company's budgeted capacity equalization payments pursuant to the Interconnection Agreement by month for calendar year 2013 that are recoverable through the ECR. Provide all assumptions and all calculations, including electronic workpapers in live format with cell formulas intact and a copy of all source documents relied on for the assumptions or other inputs to the calculations and workpapers. Please consider this request continuing in nature and supplement the response each month as actual information for that month is available.
- Q1.93. Please provide a copy of the AEP monthly reports detailing the Interconnection Agreement allocations and payments and receipts for the period January 2011 through the most recent month for which the reports are available.
- Q1.94. Refer to paragraphs 66 through 70 of the Company's Application and the repeated references to the "Phase I investigation."

- a. Please define the term "Phase I investigation" and explain its significance.
- b. Please identify the time period covered by the "Phase I" in the term "Phase I investigation."
- c. Has there been a Phase II investigation? If not, what events or circumstances would trigger a Phase II investigation?
- Q1.95. Please provide a schedule showing the amounts incurred for the Phase I investigation by month from the date the first costs were incurred through the most recent month for which actual information is available. Please provide these amounts by FERC account as they were booked and specifically show any transfers from one FERC account to another, if any.
- Q1.96. Please explain why the Company never sought approval from the Commission to defer the Phase I investigation costs or to recover those costs prior to Case No. 2011-00401.
- Q1.97. Please provide the amount of revenues and after tax income the Company lost from RTP rates versus the standard tariff rates by month during each month October 2011 through December 2012. Please provide all assumptions, data, and calculations, including, but not limited to, all electronic spreadsheets with formulas intact.

Pauley

- Q1.98. Does the transferor plan to indemnify the Company against liability for the transferor's acts and omissions related to the Mitchell plant that originated prior to the transfer? If not, please explain why not. If so, then please identify the specific provisions of each draft agreement wherein such indemnification is addressed.
- Q1.99. Is it the intent of the transferor that the Company assume the liability for transferor's acts and omissions related to the Mitchell plant that originated prior to the transfer? If so, what is the basis for this proposition? Please identify the specific provisions of each draft agreement wherein the assumption of liability is addressed. If none, then please so state.
- Q1.100. Refer to page 5 lines 6-10 of Mr. Pauley's Direct Testimony wherein he states: "the request to defer and create a regulatory asset in connection with the Big Sandy Unit 2 Phase I investigation expenditures were in the best interest of the Company and its customers." Please provide all reasons why the Company considers the deferral and creation of a regulatory asset for the "Phase I investigation expenditures" to be in the best interest of customers.
- Q1.101. Refer to page 6 lines 8-18 of Mr. Pauley's Direct Testimony.
 - a. On what date did AEP and/or Kentucky Power Company make the decision to transfer 50% of the Mitchell units to Kentucky Power and to make the Section 203 filing with the FERC to implement that decision? Please provide all documentation in support of the date provided in this response.

- b. On what date did AEP and/or Kentucky Power Company make the decision to reverse its decision to retire Big Sandy 2 announced in July 2011 and instead retrofit it with environmental controls? Please provide all documentation in support of the date provided in this response.
- Q1.102. Refer to page 4 lines 4-10 of Mr. Pauley's Direct Testimony. Please identify and provide a copy of all documents reviewed, relied upon, and/or prepared by Mr. Pauley to make the decision and/or communicate the decision to acquire 50% of the Mitchell units.

Respectfully submitted,

nPC

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