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RECEIVED

AUG 20 2013

PUBLIC SERVICE
COMMISSION

Via Overnight Mail

August 19, 2013

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

Re: Case No. 2013-00199

Dear Mr. Derouen:

Please find enclosed the original and ten (10) copies of KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC. FIRST SET OF DATA REQUESTS TO BIG RIVERS ELECTRIC CORPORATION for filing in the above-referenced matter.

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

Very Truly Yours,



Michael L. Kurtz, Esq.

Kurt J. Boehm, Esq.

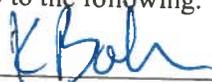
BOEHM, KURTZ & LOWRY

MLKkew
Attachment

cc: Certificate of Service
Quang Nyugen, Esq.
Richard Raff, Esq.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by electronic mail (when available) and by regular, U.S. mail, unless other noted, this 19TH day of August, 2013 to the following:



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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

RECEIVED

AUG 20 2013

PUBLIC SERVICE
COMMISSION

IN THE MATTER OF: THE APPLICATION OF BIG RIVERS :
ELECTRIC CORPORATION FOR AN ADJUSTMENT OF :
RATES :

Case No. 2013-00199

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'s

FIRST SET OF DATA REQUESTS

TO

BIG RIVERS ELECTRIC CORPORATION

Dated: August 19, 2013

DEFINITIONS

- 1 “Document(s)” is used in its customary broad sense and includes electronic mail and all written, typed, printed, electronic, computerized, recorded or graphic statements, memoranda, reports, communications or other matter, however produced or reproduced, and whether or not now in existence, or in your possession.
- 2 “Correspondence” is used in its customary broad sense and includes electronic email, including all attachments, and all written mail, messages and communications between the persons or parties named in the request.
- 3 “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 whether preliminary or final, and whether or not referred to in Big Rivers’ direct testimony.
- 4 If any document requested herein was at one time in existence, but has been lost, discarded or destroyed, identify such document as completely as possible, including the type of document, its date, the date or approximate date it was lost, discarded or destroyed, the identity of the person (s) who last had possession of the document and the identity of all persons having knowledge of the contents thereof.
- 5 “Person” means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
- 6 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.
- 7 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.
- 8 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.
- 9 “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
- 10 “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.
- 11 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.
- 12 “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.

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.

**FIRST SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
TO BIG RIVERS ELECTRIC CORPORATION**

Case No. 2012-00535

- Q.1-1. Please provide a copy of all workpapers and analyses used for this filing, including all electronic spreadsheets with formulas intact and no pasted-in values. If there are input values, then provide the source for those values and a copy of all source documents.
- Q.1-2. Refer to the Company's response to Item 6 of the post-hearing request for information in Case No. 2012-00535 wherein the Company provided its reserve margin after the Century load departs the system. For each of the requested calculations in this question, provide all calculations electronically with formulas intact and no pasted-in values.
- a. Please provide the Company's capacity by unit that sums to the 1,846.5 MW cited in that response.
 - b. Please indicate the measure of net generating capacity utilized to quantify the 1,846.5 MW. Is this unforced capacity or installed capacity or some other measure? Please provide a copy of the source/definition of the measure used by the Company and provide the calculation that led to the 1,846.5 MW capacity value.
 - c. Please provide the Company's calculations of the planning reserve margin requirements ("PRMR") of 1,703 MW with the Century load and 1,195.7 without the Century load cited in that response starting with the native load and identifying all adjustments utilized for this purpose. Provide a copy of the source/definition of the load and provide all of the calculations.
 - d. Please provide the Company's calculation of the planning reserve margin requirements without the Century load and without the Alcan load.
 - e. The difference between the PRMR of 1,703 MW with the Century load and the PRMR of 1,195.7 MW without the Century load is 507.3 MW. The difference between the PRMR with and without the Century load less the 482 MW Century load is only 25.3 MW. Please explain the seemingly minimal reserve requirement associated with the Century load. (On a percentage basis, the reserve margin requirement is only $5.2\% = 25.3/482$)
 - f. Please provide the MISO iCAP and uCAP planning reserve margins for the 2013/2014 planning year and the application of these requirements to the Company's load with and without Century. Provide this in MWs and percentages. Provide all calculations and assumptions. Provide a copy of the source/definition of the MISO iCAP and uCAP planning reserve margins provided in response to this question.
 - g. Please provide the MISO iCAP and uCAP planning reserve margins for the 2013/2014 planning year and the application of these requirements to the Company's load without Century and without Alcan. Provide this in MWs and percentages. Provide all calculations and assumptions.
 - h. Please reconcile the reserve margin of 25.3 MW for the Century load described in part (d) of this question to the Company's response without the Century load in response to part (e) of this question.
 - i. Please provide a reserve margin table consistent with MISO requirements for the period consistent with the period of the load forecast period developed by GDS. For each year, the load and all load adjustments should be separately identified. For each year, all generating units should be separately

identified, and similarly all contracts should be separately identified. For each year, the calculation of capacity available for purchase from or sale to the MISO market should be identified.

- Q.1-3. Refer to page 5 lines 4-5 of Mr. Berry's Direct Testimony and the statement that the Company has net generating capacity available of 1,819 MW.
- a. Please indicate the measure of net generating capacity utilized to quantify the 1,819 MW. Is this unforced capacity or installed capacity or some other measure? Please provide a copy of the source/definition of the measure used by the Company and describe why and for what purposes the Company believes this is an appropriate measure of net generating capacity.
 - b. Please reconcile the 1,819 MW cited in Mr. Berry's testimony to the 1,846.5 MW cited in response to Item 6 of the post-hearing request for information in Case No. 2012-00535. Provide this reconciliation by generating unit and provide a detailed explanation of each reconciling difference.
- Q.1-4. The capacity of the Wilson and Coleman plants sums to 860 MW, according to Mr. Berry. [Berry Direct Testimony at 4-5]. The Smelter load sums to 850 MW. The Smelter load plus reserve requirements is something greater than the Smelter load alone and greater than the sum of the capacity of only the Wilson and Coleman plants. Please describe all analyses performed by the Company to determine if other generating capacity in addition to Wilson and Coleman should be idled upon the Alcan load termination. In addition, please provide a copy of all such analyses. If the Company has not performed such analyses, then please explain why it did not do so.
- Q.1-5. Please provide the net book value of each of the Company's power plants by month since December 2012 through the most recent month for which actual information is available. Provide the electric plant in service, accumulated depreciation, and construction work in progress separately.
- Q.1-6. Please provide the fuel inventory and the materials and supplies inventory by RUS account for each of the Company's power plants by month since December 2012 through the most recent month for which actual information is available.
- Q.1-7. Please provide the allowance inventories by RUS account and type of allowance for each of the Company's power plants by month since December 2012 through the most recent month for which actual information is available.
- Q.1-8. Refer to page 11 lines 9-16 of Mr. Berry's Direct Testimony wherein he describes the Company's attempts to market its excess capacity in responses to 4 RFPs, including the sale of the Wilson and Coleman plants.
- a. Please provide a copy of each of the proposals to third parties and any responses received after submitting its proposals.
 - b. For proposals to sell the Wilson and/or Coleman plants, please indicate whether the offer price was more or less than net book value. If more than net book value, please explain why the Company did not offer the plants for sale at net book value or less.
 - c. Please provide a copy of all studies, analyses, and reports that attempt to ascertain the market value of the Wilson and Coleman plants. If there are none, then please describe how the Company can realistically assess the market value of these plants.
 - d. Is it the Company's policy that it will not sell Wilson or Coleman plants at less than net book value? If this is the Company's policy, please explain the rationale for this policy.

- e. Please provide a copy of all documents that describe in whole or part the Company's bidding strategy and/or guidelines for the sale of Wilson and Coleman plants or the sale of the output of the plants through a PPA. Identify and describe the source and/or basis for this strategy and/or guidelines.
- f. Please confirm that the Company agrees, as a matter of principle, that if it cannot sell its power plants at net book value, then offering them into an RFP at something greater than net book value is a certain loser.
- g. Mr. Berry states that the Company had informal discussions with other potential parties. Please provide a summary of the discussions that took place, including the party(ies), the generating units that were discussed, and the terms that were discussed, if any.

Q.1-9. Refer to page 43-44 of the Company's Post-Hearing Brief in Case No. 2012-00535 wherein the Company describes its plans and attempts to sell its power plants.

- a. The Company states that "it has a set a price on both plants." Please provide those prices and all analyses performed by the Company to set those prices.
- b. The Company states that none of the potential counterparties to Big Rivers' proposed sale of its power plants "have refused the offers currently on the table." Please indicate whether the Company responded to Kentucky Power Company's RFP to supply capacity to replace Big Sandy with offers to sell Kentucky Power the Wilson and Coleman power plants. If so, then please provide a copy of the Company's bid proposals and workpapers (electronically with all formulas intact) created to derive responses to the proposal, and provide a copy of Kentucky Power Company's response, if any. If not, then please explain why the Company did not offer to sell the power plants to Kentucky Power Company.
- c. The Company states that "Big Rivers would consider an offer to purchase one of its plants if that offer would not result in a loss of equity . . . and if the price paid for the plant was high enough to fairly compensate Big Rivers' Members, taking into account the anticipated ongoing financial benefits from sales of available generation capacity." Please confirm that this means Big Rivers has set a minimum sale price of something greater than net book value. Provide a copy of all documents and communications that set forth this policy, the rationale in support of this policy, and all analyses that indicate a market value for the power plants that is equal to or greater than net book value.

Q.1-10. Refer to page 13 lines 19-22 of Mr. Berry's Direct Testimony. Please provide a copy of all studies to assess the economic viability of the Wilson and Coleman plants and the timing of their return to service.

Q.1-11. Refer to page 15 lines 9-15 of Mr. Berry's Direct Testimony wherein he states:

Furthermore, with both smelters off the Big Rivers system, the Wilson unit is not the optimal size for this smaller system. Big Rivers' peak demand after the smelters exit will be approximately 650 MW. It would not be prudent for Big Rivers to take the risk of losing more than 64% (417/650) of its required capacity when a single unit trips off line.

Please explain the relevance of this testimony, e.g., does Big Rivers plan to sell all or a share of Wilson because it does not provide the right-size capacity for the remaining load.

Q.1-12. Refer to page 20 lines 11-23 of Mr. Berry's Direct Testimony. Please provide a copy of the input data assumptions specific to the Big Rivers System that were incorporated in the ACES production cost model. This input data should be provided through the latest date available. Please provide this in electronic format with all formulas intact and provide all supporting assumptions and electronic workpapers. If there are any other referenced spreadsheets, provide those spreadsheets as well. At a minimum this should include:

- a. The ACES market price projections and all market price projection sensitivities, e.g., high and low gas prices, no carbon and carbon. Provide the assumptions and the sources for each assumption used in the base case and each of the sensitivities. This includes any spreadsheets that were used to develop the market price projections.
- b. The fuel price forecasts by generating unit and any sensitivity forecasts, e.g., high and low gas prices, no carbon and carbon, that ACES, Big Rivers, or any other consultant developed. Provide the assumptions and the sources for each assumption used in the base case and each of the sensitivities. This includes any spreadsheets that were used to develop the fuel price forecasts.
- c. The CO2 and other emissions price forecasts and sensitivity forecasts that ACES, Big Rivers, or any other consultant developed.
- d. Generating unit O&M fixed and variable inputs.
- e. Generating unit heat rate input assumptions.
- f. Generating unit availability rate and forced outage rate assumptions.
- g. The load forecast (peak demand and energy) incorporated in the ACES production cost model.
- h. The market capacity price forecast model.

Q.1-13. Provide Big Rivers' projection of the future value of MISO market capacity in the same format as Exhibit Berry Rebuttal-1 in Case No. 2012-00535.

Q.1-14. For each year of 2013 through 2020, identify:

- a. Projected total off-system sales in MWhs
- b. Projected total off-system sales revenues

Q.1-15. Refer to page 20 lines 11-23 of Mr. Berry's Direct Testimony. Please provide a copy of the output reports for the ACES production cost model used by Mr. Warren to develop results incorporated in the Company's financial forecast. These results should be provided through the latest date available. Please provide this in electronic format with all formulas intact and include all supporting assumptions and electronic workpapers. If there are any other referenced spreadsheets, provide those spreadsheets as well. At a minimum this should include:

- a. All standard PAR model output files including .yr, .mn, .eei, .lfc, .log, .ctl, etc for all runs that were made for purposes of the Company's filing in this proceeding,
- b. All spreadsheets that the Company or any of its consultants developed as a means of reporting or analyzing output results, including any post processing analyses, based on all of the production cost runs that were made for purposes of the Company's filing in this proceeding.

Q.1-16. Refer to page 20 lines 18-23 of Mr. Berry's Direct Testimony wherein he describes the energy price forecasts and production cost forecasts provided by ACES and relied on by Big Rivers for planning purposes and for its test year revenue requirement.

- a. Please provide a copy of all analyses, studies, reports, and correspondence that address ACES' review and/or the Company's review of the assumptions and the consistency of those assumptions used by ACES for the market price forecasts and the production cost assumptions provided to ACES and/or used by Big Rivers for capital expenditures and operating expenses in its financial model, e.g. the

effects of carbon regulation, CSAPR court rulings, and other assumptions that generally would be expected to affect both market prices and the Company's costs of owning and operating coal-fired capacity.

- b. Please provide a copy of the ACES market price projections and all sensitivities, e.g., high and low gas prices, no carbon and carbon. Provide the assumptions and the sources for each assumption used in the base case and each of the sensitivities.

Q.1-17. Refer to the Cost of Service Study provided in Exhibit Wolfram-3 and Exhibit Wolfram-4. Please provide an electronic version of the Cost of Service Study model with all formulas intact and including all supporting assumptions and electronic workpapers.

Q.1-18. Please provide a copy of the Big Rivers financial model through the latest date available. Please provide in electronic format with all formulas intact and including all supporting assumptions and electronic workpapers.

Q.1-19. Refer to page 44 of the Company's Post-Hearing Brief in Case No. 2012-00535 in which it states: "Big Rivers reasonably anticipates that increased off-system sales will benefit its Members and their member-owners when wholesale electricity prices have recovered from their current slump, expected to occur around 2019. This anticipated 2019 market recovery is not mere conjecture – it is based on Big Rivers' analysis . . ." Please provide a copy of the Big Rivers' analysis, including all supporting assumptions and calculations. Mr. Berry makes a similar comment in his testimony at page 13 at 22.

Q.1-20. Refer to page 9 lines 15-17 of Mr. Berry's Direct Testimony.

- a. Please provide a copy of the 2014 – 2016 financial plan/economic analysis used to estimate the effects from idling the Coleman and Wilson stations. Please provide this electronically with all formulas intact.
- b. Please provide a copy of all post 2016 financial plan/economic analysis used to estimate the effects from idling the Coleman and Wilson stations. Please provide this electronically with all formulas intact.

Q.1-21. Please provide the Wilson plant costs included in the base and ECR revenue requirements in the test year by month, including labor and labor-related overheads expense, fixed departmental expense, property tax expense, property insurance expense, depreciation expense, interest expense, each other expense, and the TIER margin. Please provide all support for amounts that were calculated, including, but not limited to, depreciation expense and interest expense.

Q.1-22. Please provide the Coleman plant costs included in the base and ECR revenue requirements in the test year by month, including labor and labor-related overheads expense, fixed departmental expense, property tax expense, property insurance expense, depreciation expense, interest expense, each other expense, and the TIER margin. Please provide all support for amounts that were calculated, including, but not limited to, depreciation expense and interest expense.

Q.1-23. Please provide an annual history of actual property tax expense for the Wilson plant and for the Coleman plant from 2008 through 2012, budget property tax expense for 2013 and 2014, and the amount included in the test year.

Q.1-24. Please describe all steps the Company has taken and those that it plans to take to reduce the valuation of the Wilson and Coleman plants for property tax purposes. Please describe how the Company factored these steps into the budgeted property tax expense for 2014 and for the test year.

- Q.1-25. Please provide an annual history of actual property insurance expense for the Wilson plant and for the Coleman plant from 2008 through 2012, budget property insurance expense for 2013 and 2014, and the amount included in the test year.
- Q.1-26. Please describe all steps the Company has taken and those that it plans to take to reduce the insurance expense for the Wilson and Coleman plants. Please describe how the Company factored these steps into the budgeted property insurance expense for 2014 and for the test year.
- Q.1-27. Refer to page 11 lines 1-21 of Mr. Berry's Direct Testimony. Please provide a copy of all documents, including, but not limited to, correspondence, contracts, and requests for bids between the Company and other parties related to the potential marketing of excess power and/or the sale of the Wilson and Coleman stations.
- Q.1-28. Refer to page 14 lines 3-11 of Ms. Richert's Direct Testimony. Please provide the most recent actual balance of the Economic Reserve and the Rural Economic Reserve and the estimated depletion of those reserves by month through the end of the test year under the Company's proposed approach for using the Reserve Funds to temporarily delay the Alcan rate increase and under an alternative approach where the use of the Reserve Funds is limited to their present authorized use to offset increases in fuel and environmental costs.
- Q.1-29. Please provide the Company's planned capital expenditures by generating unit broken down between MATS, each other major environmental requirement, all other environmental requirements, and all other non-environmental costs by month from January 2013 through the end of the test year.
- Q.1-30. For each existing and pending environmental requirement listed below, provide a list and description of the control facilities that would need to be constructed in order for Big Rivers to be in compliance with that requirement at each of Big Rivers' generating units. Provide a detailed calculation of all projected capital and annual O&M costs associated with each requirement or control facility. For requirements that are not currently in effect, provide Big Rivers' best estimate based on the requirement as currently proposed:
- a. NSR Consent Decree
 - b. Mercury and Air Toxics Standard ("MATS")
 - c. Cross-State Air Pollution Rule ("CSAPR")
 - d. Steam Electric Effluent Limitation Guidelines ("ELGs")
 - e. Clean Water Act Section 316(b)
 - f. Coal Combustion Residuals Rule ("CCR")
- Q.1-31. Please provide the actual administrative and general expense by RUS account by month from January 2008 through the most recent month for which actual information is available and the budgeted/projected A&G expense by RUS account by month thereafter through the end of the test year.
- Q.1-32. Please indicate whether the Company reduced the amount of Administrative and General expense included in the Company's test year revenue requirement as a result of idling the Wilson and Coleman stations. If so, please describe and quantify these reductions for the expenses included in each RUS account and provide all assumptions, calculations and electronic workpapers with formulas intact. If not, then please explain why the Company has not done so.

- Q.1-33. Refer to page 12 lines 22 through 23 of Ms. Barron's Direct Testimony wherein she states: "A price elasticity coefficient of -0.21 indicates that a 1% change in average price causes a .21% change in average household consumption."
- a. Please confirm this means that if the average residential customer using 1300 kWh per month faces an increase of 72% in their bills, that the customer will reduce its usage by 15.12% (0.21 times 72%) or 197 kWh (.21 times 72% times 1300 kWh), which would reduce the average residential customer usage to approximately 1100 kWh per month. Please explain your response.
 - b. Please quantify the effect on average consumption per residential customer per month and the average residential customer's bill per month that this price elasticity will have if the Company receives the entirety of its requests in the Century rate case and in this proceeding.
 - c. Please provide all analysis, data, workpapers and other documents related to Big Rivers' elasticity of demand study.
- Q.1-34. Please provide the Company's test year MISO settlements by component and indicate the specific lines where each of these components is included in the Company's financial model. Please provide all assumptions, calculations, and electronic spreadsheets with formulas intact used to quantify these components.
- Q.1-35. Please provide the amount of transmission revenues from Century Kentucky and from Century Sebree included in the Company's test year revenue requirement and indicate specific lines where each of these amounts is included in the Company's financial model. Please provide all assumptions, calculations, and electronic spreadsheets with formulas intact used to quantify these amounts.
- Q.1-36. Please describe all negotiations with Century Sebree and provide a status report regarding market access for power to the Sebree Smelter. Provide all correspondence between Big Rivers and Century regarding a contract for market access or a long-term electric supply contract for the Sebree smelter.
- Q.1-37. Refer to pages 14-15 of Mr. William's Direct Testimony. Please provide a schedule showing each amortization expense included in the Company's test year expenses and revenue requirement. Provide all assumptions, calculations, and electronic spreadsheets with formulas intact for each of these amounts.
- Q.1-38. Refer to pages 15-16 of Mr. William's Direct Testimony regarding the FDE expense. Please provide a copy of all analyses and/or studies that address potential reductions in the Company's staffing requirements and/or costs after the termination of the Smelter load and the idling of the Wilson and Coleman plants other than the staffing and costs to operate and maintain the plants.
- Q.1-39. Refer to page 6 of Mr. Berry's Direct Testimony. Please provide a copy of the generating unit reliability benchmark study that he references. Also, if not included in the study, please provide annual EFOR, EAF, and NCF results for each of the Company's generating units individually, and provide the results on an annual basis, as well as a cumulative average basis over the 2008 through 2012 period. Provide the same information for the Peer Group as well.
- Q.1-40. Refer to page 7 of Mr. Berry's testimony wherein he discusses planned maintenance expected to be performed at each of Big River's units over the next three years. Please supply the following information, though this request asks that information be supplied for the longest period for which data is available:
- a. Hours of maintenance planned by unit each year.
 - b. Planned maintenance schedule dates by unit.
 - c. Specific work that will be performed by maintenance outage by unit each year.

- d. Cost of specific work that will be performed by maintenance outage by unit each year.
- e. All workpapers that were used to derive the planned maintenance schedules and the associated costs. These should be provided electronically with all formulas attached and with no pasted in values.
- f. Please provide a copy of the Outage Planning Process Manual discussed at page 7 at line 2 of Mr. Berry's testimony.

Q.1-41. Exhibit Berry-1 of Mr. Berry's testimony includes FDE Outage \$ and FDE Routine \$ by unit by year. Please supply the following information, though this request asks that information be supplied for the longest period for which data is available:

- a. Description of the work that will be performed for the Outage category by unit each year.
- b. Description of the work that will be performed for the Routine category by unit each year.
- c. All workpapers that were used to derive the Outage category costs. These should be provided electronically with all formulas attached and with no pasted in values.
- d. All workpapers that were used to derive the Routine category costs. These should be provided electronically with all formulas attached and with no pasted in values.

Q.1-42. Exhibit Berry-2 of Mr. Berry's testimony contains details of Big Rivers' production department's current capital work plan.

- a. Please supply a copy of the prior capital work plan, going out as far as data was available, and explain the reason for all differences in the current work plan compared to the prior work plan.
- b. Please provide all workpapers that were used to derive the most recent capital work plan, going out as far as data was available. These should be provided electronically with all formulas attached and with no pasted in values.
- c. For each unit the Company plans to idle, please explain the reason why there is a need for the capital improvements while being layed-up.
- d. For the Coleman and Wilson units, please supply all documentation discussed on page 8 of Mr. Berry's testimony that was relied on in developing long-term planned outage expenses at those units, going out as far as the data is available.

Q.1-43. Page 8 of Mr. Berry's testimony mentions that a line by line review was performed for non-outage O&M costs to develop a non-outage O&M budget. Please provide workpapers that:

- a. Show the historical costs by department that were reviewed for this purpose. Please provide a breakout for fuel, pollution control reagent, and pollution cost product and ash disposal and further separated into routine and special projects.
- b. The projected budget that was created, going out as far as the data is available, based on the historical departmental costs. Please provide a breakout for fuel, pollution control reagent and pollution control product and ash disposal, and further separated into routine and special projects.
- c. The production cost model inputs that were created, going out as far as the data is available, based on the project budget.

- d. The production cost model output, going out as far as the results are available, that would have presumably been compared to the historical costs.

Q.1-44. According to Mr. Berry, Big Rivers is following the Load Concentration Analysis and Mitigation Plan that was submitted to the Commission in 2012. Does the Company believe that the assumptions that were made at the time that study was performed are still reasonable today? Please explain your response. In addition, please indicate if the Company has updated that study. If so, then please provide a copy of the updated study, and if not, then explain why the Company hasn't updated the study.

Q.1-45. Has the Company studied the potential permanent retirement of any of its generating units? If so, please provide the results and a copy of each such study along with a copy of all assumptions and workpapers, including all electronic spreadsheets with all formulas intact. The assumptions include, but are not limited to, environmental upgrade requirements, natural gas price forecasts, coal price forecasts, market capacity and energy price forecasts, and CO2 assumptions that were used in the study along with the assumptions, workpapers, and electronic spreadsheets with all formulas intact that were used to developed these assumptions. If not, please provide all reasons why it has not.

Q.1-46. For each of the Wilson, Green, Coleman, Reid or HMP&L generating units:

- a. Identify the estimated retirement date
- b. Produce any analysis or assessment of the economics of continued operation of such unit
- c. 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, MISO "must-run" status or transmission system reliability
- d. Identify any transmission grid upgrades or changes that would be needed to permit the retirement of any of the units
- e. Produce any analysis or assessment of the need for the continued operation of each unit.

Q.1-47. Please provide, electronically, the long-term annual production costs based on a case that permanently retires the Coleman and Wilson units and assumes that Big Rivers does not supply the Alcan and Century loads for the length of the study. This study should be based on most current assumptions the Company is relying on for its planning purposes. The assumptions include, but are not limited to, environmental upgrade requirements, natural gas price forecasts, coal price forecasts, market capacity and energy price forecasts, and CO2 assumptions that were used in the study along with the assumptions, workpapers, and electronic spreadsheets with all formulas intact that were used to developed these assumptions.

Q.1-48. Please provide, electronically, the long-term annual production costs based on a case that temporarily idles the Coleman and Wilson units for the period of time that the Company is currently planning for, and then brings them back when the Company believes that will occur. This study should assume that Big Rivers does not supply the Alcan and Century loads for the length of the study. This study should be based on most current assumptions the Company is relying on for its planning purposes. The assumptions include, but are not limited to, environmental upgrade requirements, natural gas price forecasts, coal price forecasts, market capacity and energy price forecasts, and CO2 assumptions that were used in the study along with the assumptions, workpapers, and electronic spreadsheets with all formulas intact that were used to developed these assumptions.

Q.1-49. On page 12, Mr. Berry mentions that Big Rivers generating units achieve a 90% dispatch rate in the MISO market.

- a. Please explain what a 90% dispatch rate is, and provide the analysis electronically with all formula intact that led to that calculation.
- b. Provide historical capacity factor, generation, and capacity values for each Big Rivers' unit for the past 10 years.

Q.1-50. On page 14, Mr. Berry mentions that the Load Concentration and Mitigation Plan calls for eliminating the variable cost of production and to reduce the FDE, labor and labor overhead costs to Big River's members. Please provide the following information, going out to 2027, or as far out as the data is available:

- a. Annual variable cost of production, FDE, labor and labor overhead costs for each generating unit (each expense component identified separately) assuming the Wilson and Coleman units are idled for that entire period. If the data cannot be provided as requested, please provide a detailed explanation of why not. Please explain how overtime has been accounted for in these estimates.
- b. Annual variable cost of production, FDE, labor and labor overhead costs for each generating unit (each expense component identified separately) assuming the Wilson and Coleman units are not idled for that entire period. If the data cannot be provided as requested, please provide a detailed explanation of why not. Please explain how overtime has been accounted for in these estimates.

Q.1-51. On page 14, Mr. Berry mentions that Big Rivers continues to evaluate a range of options to arrive at the most cost-effective alternative possible for Big River's members. Please provide a summary of all analyses of alternatives that were conducted over the past year, including results. Also, provide a list and description of all studies that are currently underway, and another list and description of each study of additional options or variations that Big Rivers intends to perform within the next 12 months, and state when Big Rivers intends to complete and/or perform those studies. If a retirement analysis has not been performed yet, please explain if and when Big Rivers intends to perform such a study, and if it does not intend to do so, then provide all reasons why it does not intend to do so.

Q.1-52. At page 15, Mr. Berry states that the Coleman Plant has the least amount of pollution control installed. Please provide for the Coleman units and Wilson:

- a. A summary of the pollution control equipment presently installed and operating and the specific regulations that are met with the equipment.
- b. A list of pollution control equipment that is in the process of being installed or that will be installed in the future, and the specific regulations that will be met with the equipment. Indicate when the equipment will have to be installed, the installation capital costs, and any on-going capital, fixed and variable O&M costs resulting from the environmental upgrades that will be incurred.

Q.1-53. At page 15, Mr. Berry states that the Coleman Plant has historically cost approximately \$2 - \$5/MWH more than Green or Wilson. Please provide all support for this calculation.

Q.1-54. At page 17, with regard to the Coleman, SSR, transmission revenue matter, please respond to the following:

- a. Please provide the formula for computing transmission revenue that Century Kentucky will pay to Big Rivers during the test year if the Hawesville Smelter operates at 482 mW and assuming that Coleman is idled.
- b. Assume that Big Rivers had to run Coleman at minimum capacity, what is the formula for calculating SSR revenue. Please provide the calculation electronically with all formula attached.

- c. Assume that Big Rivers had to run Coleman at maximum capacity, what is the formula for calculating SSR revenue. Please provide the calculation electronically with all formula attached.

Q.1-55. With regard to page 19 of Mr. Berry's testimony, please provide the analyses that led to the projection of all charges and credits associated with participation in the MISO's Real Time, Day Ahead, and FTR markets, including admin fees, energy revenues and charges, transmission revenues and charges, FTR related revenues and charges, capacity costs, and costs which MISO passes on to all market participants based on activity within the markets. Please provide all workpapers, models, documentation, etc, used in the development of this data. Provide this electronically with all formulas attached. Also provide this for the longest period for which this data is available.

Q.1-56. With regard to \$6.8 million in net charges and credits for MISO that were also included in the analysis in addition to the energy related revenues and charges that were determined by the Company's production cost modeling.

- a. Please describe in detail what is the \$6.8 million in net charges and credits for MISO.
- b. Explain why these costs were not captured in the production cost model and had to be accounted for separately.
- c. Provide the workpapers, models, documentation electronically with all formulas attached that derived this value. Also, provide this information yearly for the longest period for which this data is available.

Q.1-57. With regard to the \$2.27 million in ACES fees,

- a. Please provide the workpapers, models, documentation electronically with all formulas attached that derived this value. Also, provide this information yearly for the longest period for which this data is available.
- b. Please explain how these fees would vary depending on whether Coleman or Wilson operate or are idled, or whether the Century or Alcan smelters are part of Big Rivers' load or not.

Q.1-58. With regard to the \$2.70 million in transmission costs to TVA.

- a. Please provide the workpapers, models, documentation electronically with all formulas attached that derived this value. Also, provide this information yearly for the longest period for which this data is available.
- b. Please explain how these fees would vary depending on whether Coleman or Wilson operate or are idled, or whether the Century or Alcan smelters are part of Big Rivers' load or not.

Q.1-59. With regard to the discussion concerning ACES at page 20 of Mr. Berry's testimony.

- a. Provide all data and results that were provided by Big Rivers to ACES with regards to the work that ACES performed in this proceeding.
- b. Provide all data and results that ACES provided to Big Rivers with regard to the work that ACES performed in this proceeding.
- c. Besides ACES and GDS were any other consultants involved in the development of the analyses performed in this proceeding. For example, who developed the market price forecasts, and fuel forecasts?

- Q.1-60. Please provide the fuel summaries of all of Big Rivers' long-term fuel procurement contracts that were provided by the Fuel department to ACES. Provide them in the same form as they were provided to ACES. (Williams testimony, page 11 at 6).
- Q.1-61. Please provide all analyses electronically with all formulas intact that the environmental department performed using as input, data from ACES production cost analyses, to derive emission fees. These costs were then provided to the budget department. Please provide this data for the longest period that the data is available. (Williams testimony, page 11 at 11).
- Q.1-62. Please provide the analyses electronically with all formulas intact that were performed by the Energy Services Staff to derive costs and revenues for MISO transmission expenses and revenues, TVA transmission fees and revenues, ACES costs, and MISO administrative fees. Please provide this data for the longest period that the data is available. (Williams testimony, page 12 at 4).
- Q.1-63. With regard to Ms. Barron's testimony concerning replacing idled capacity (page 14), please explain how it was determined that idled capacity would occur only during the months of February through May 2014, and provide the workpapers electronically with all formulas attached that led to the replacement capacity charges of \$510,552 that would be paid to MISO.
- Q.1-64. Regarding Mr. Warren's testimony, page 8, at 8, please provide a narrative explanation of how the Big Rivers financial model captures data from the production cost model output file, and provide the financial model and the production cost output files for each case developed in this proceeding. Please provide this electronic, with all formulas intact.
- Q.1-65. Please provide the capital expenditures workpapers and models associated with the capital budget and financial forecast, as discussed in Mr. Warren's testimony at page 8 line 15. Also, provide the MATS capital expenditures as tracked in a separate sheet for inclusion in the environmental compliance rate base.
- Q.1-66. Utilities across the US are conducting coal unit retirement studies on behalf of their customers and determining that it is less expensive to retire the coal units, than to spend capital and continue to operate the units (even ones with significant remaining life and that are considered to be valuable assets). Has Big Rivers conducted such a study? If not, why hasn't Big Rivers conducted such a study to prove that it is economically advantageous to continue to operate the units?
- Q.1-67. Provide a cost-benefit analysis which illustrates the total of all costs associated with idling generation plant(s) (including but not limited to stranded costs), contrasted with the costs of leaving the plant(s) running in the same format that was used in Exhibit Berry Rebuttal-2 in Case No. 2012-00535.
- Q.1-68. Provide a copy of the unredacted minutes of all Board of Directors meetings from January 2011 through the most recent month available.
- Q.1-69. Please provide a copy of all financial information that addresses the profitability of each Smelter obtained by Big Rivers since January 2011.
- Q.1-70. Please indicate if the Company has retained bankruptcy and/or restructuring counsel to advise management and/or the Board of Directors. If so, please indicate when such counsel was retained and provide a copy of the engagement letter, purchase order, and all other writings that address the scope of services that will be provided. Provide all correspondence and documents between BREC and/or its Members and bankruptcy counsel and/or consultant.
- Q.1-71. Please indicate if the Company has retained bankruptcy and/or restructuring advisors, other than legal counsel, to advise management and/or the Board of Directors. If so, please indicate when such counsel

was retained and provide a copy of the engagement letter, purchase order, and all other writings that address the scope of services that will be provided.

- Q.1-72. Please provide the expense by RUS account incurred by month for each professional firm retained by the Company to advise management and/or the Board of Directors on bankruptcy and/or restructuring matters since January 2011 and through the most recent month for which actual expenses are available. Please identify the source of funds used to pay such advisors.
- Q.1-73. Please provide the budgeted expense by RUS account by month for each professional firm retained by the Company to advise management and/or the Board of Directors on bankruptcy and/or restructuring matters from January 2011 through the end of the test year in this proceeding.
- Q.1-74. Does Big Rivers continue to retain William Snyder as a consultant? If yes, please provide a detailed description of the scope of Mr. Snyder's duties with Big Rivers.
- Q.1-75. Please provide a copy of all documents regarding tariff pricing proposals to or from Alcan and Century for the Sebree and Hawesville Smelters since January 2011, including, but not limited to, the Alcan proposal for a rate of \$43/mWh and the Company's rejection of this offer. This request includes, but is not limited to, all analyses performed by Big Rivers, presentations to the Board of Directors, notes taken in meetings, and correspondence.
- Q.1-76. Provide a copy of all correspondence and documents between BREC and RUS since January 1, 2013.
- Q.1-77. Provide a copy of all correspondence and documents between BREC and CFC since January 1, 2013.
- Q.1-78. Provide a copy of all correspondence and documents between BREC and CoBank since January 1, 2013.
- Q.1-79. Provide a copy of all correspondence and documents between BREC and any of its other creditors since January 1, 2013.
- Q.1-80. Provide a copy of all correspondence and documents between BREC and MISO since January 1, 2013.
- Q.1-81. Provide a copy of all correspondence and documents between BREC and its Members since January 1, 2013.
- Q.1-82. Provide a copy of all correspondence and documents between BREC and any financial institutions, private equity firms or utilities relating to the possible sale of Big Rivers' assets since January 1, 2013.
- Q.1-83. Provide a copy of all correspondence internally within BREC regarding BREC's rate case filing.
- Q.1-84. Provide a copy of all correspondence and documents between BREC and the three rating agencies since January 1, 2013.
- Q.1-85. Provide a copy of all correspondence and documents between BREC and Century Aluminum since January 1, 2013.
- Q.1-86. Provide a copy of all correspondence and documents between BREC and Alcan-Rio Tinto since January 1, 2013.
- Q.1-87. Provide copies of all reports or presentations, including any model runs (with formulas intact) that have been prepared by BREC since January 1, 2013, for use by or presentation to any credit rating agency, investment banking institution, investment advisory service, credit support institution or institutional investment group or entity.

- Q.1-88. Provide a copy of all correspondence and documents between BREC and ACES since January 1, 2013.
- Q.1-89. Provide a copy of all correspondence and documents between BREC and PACE Global since January 1, 2013.
- Q.1-90. Provide a copy of all correspondence and documents between BREC and IHS since January 1, 2013.
- Q.1-91. Provide a copy of all correspondence and documents between BREC and Wood McKenzie since January 1, 2013.
- Q.1-92. Provide a copy of all correspondence and documents between BREC and GDS Associates, Inc. since January 1, 2013.

Respectfully submitted,



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August 19, 2013