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August 19, 2014

**Via Personal Delivery**

Mr. Jeff Derouen, Executive Director  
Case No. 2014-00166  
Kentucky Public Service Commission  
211 Sower Blvd.  
Frankfort, KY 40601

Re: Case No. 2014-00166 Ben Taylor and Sierra Club's Initial Requests for  
Information to Big Rivers Electric Corporation (Redacted Version)

Dear Mr. Derouen,

Enclosed, please find one (1) original and ten (10) copies of the public, redacted version of Ben Taylor and Sierra Club's Initial Requests for Information, filed today in the above-referenced matter via personal delivery. The Initial Requests for Information contain content subject to a petition for confidential treatment filed by Tyson A. Kamuf, counsel for Big Rivers Electric Corporation, on May 14, 2014 in Case No. 2014-00166. One (1) original confidential version of this document will be filed with the Commission via personal delivery today by local counsel, Joe Childers. By copy of this letter, all parties listed on the Certificate of Service have been served via United States mail and e-mail. Please place this document on file.

Sincerely,

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Sierra Club  
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kristin.henry@sierraclub.org

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

**IN THE MATTER OF: THE 2014 INTEGRATED** : **Case No. 2014-00166**  
**RESOURCE PLAN OF BIG RIVERS ELECTRIC** :  
**CORPORATION** :

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**BEN TAYLOR AND SIERRA CLUB’S INITIAL REQUESTS FOR  
INFORMATION TO BIG RIVERS ELECTRIC CORPORATION  
(REDACTED)**

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Intervenors Ben Taylor and Sierra Club (collectively “Environmental Intervenors”) pursuant to the Kentucky Public Service Commission’s (“Commission”) June 13 and June 30, 2014 Orders, propound the following requests for information on the Big Rivers Electric Corporation’s (“Big Rivers” or “BREC”) filing in the above captioned proceeding.

Big Rivers shall answer these requests for information in the manner set forth in the June 13 Order and by no later than the September 10, 2014 deadline set forth in the Appendix of the June 30 Order. Please produce the requested documents in electronic format to:

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

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

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

### **DEFINITIONS**

Unless otherwise specified in each individual interrogatory or request, “you,” “your,” “Big Rivers,” “BREC,” or “Company” refers to Big Rivers Electric Corporation, and its affiliates, employees, and authorized agents.

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

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

“CO<sub>2</sub>” means carbon dioxide

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

“CSAPR” means the Cross-State Air Pollution Rule

“Document” refers to written matter of any kind, regardless of its form, and to information recorded on any storage medium, whether in electrical, optical or electromagnetic form, and capable of reduction to writing by the use of computer hardware and software, and includes all copies, drafts, proofs, both originals and copies either (1) in the possession, custody or control of the Companies regardless of where located, or (2) produced or generated by, known to or seen by the Companies, but now in their possession, custody or control, regardless of where located whether or still in existence.

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

recorded, stenographic, computer-generated, computer-stored, or electronically stored matter, however and by whomever produced, prepared, reproduced, disseminated or made.

Without limitation, the term “control” as used in the preceding paragraphs means that a document is deemed to be in your control if you have the right to secure the document or a copy thereof from another person or public or private entity having actual possession thereof. If a document is responsive to a request, but is not in your possession or custody, identify the person with possession or custody. If any document was in your possession or subject to your control, and is no longer, state what disposition was made of it, by whom, the date on which such disposition was made, and why such disposition was made.

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

“Identify” means:

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

“NOx” means nitrogen oxides

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

“SCR” means selective catalytic reduction technology

“SO<sub>2</sub>” means sulfur dioxide

### **PRIVILEGE**

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

### **REQUESTS FOR INFORMATION**

1. Refer to page 10 and Table 1.3 on page 11 of the IRP. With regards to the forecasted replacement load discussed therein:
  - a. Explain in detail the bases for your projected levels of replacement load for each of the years 2016 through 2028.

- b. Identify the sources of the replacement load that you forecast for each of the years 2016 through 2028.
  - c. Identify and produce all studies, analyses, modeling, and data that support the levels of replacement load that you are projecting for each of the years 2016 through 2028.
  - d. Identify the price in dollars per MWh at which you project such replacement load sales will be made.
  - e. Produce any analyses, studies, and other documents supporting your projected price for such replacement load sales.
  - f. Identify and produce all studies, analyses, modeling, or data that support your assumption that such replacement load will be at a 75% load factor.
  - g. Explain why you expect replacement load to be at a 75% load factor when, according to Table 1.2 of the IRP, your total system load factor averaged between 56% and 63% from 2009 through 2013.
  - h. Identify any year in which Big Rivers' load factor has equaled or exceeded 75%.
2. Refer to Table 1.3 on page 11 of the IRP, which shows replacement load growth of approximately 103MW per year from 2016 through 2019 doubling to 206 MW per year from 2019 through 2021. Explain the abrupt acceleration in projected replacement load growth that starts in 2019.

3. Refer to page 12 of the IRP. With regards to management's conclusion that "energy sales and peak demand" for industrial customers "would not decrease as a result of price increases planned in the near term":
  - a. Identify the individual(s) in management who made this conclusion.
  - b. Identify and produce all studies, analyses, and data upon which that conclusion is based.
  - c. Describe in detail the "discussion and consideration of customers' processes and operating characteristics" referenced therein.
  - d. Identify each industrial customer with whom such discussions occurred.
  - e. Produce any documentation of such discussions.
  - f. State whether Big Rivers has estimated the energy price at which one or more of the large industrial customers might switch to self-generation or seek to leave the Big Rivers system.
    - i. If so, provide such estimate.
    - ii. If not, explain why not.
4. Refer to page 17 of the IRP. Produce RUS's June 2013 approval of Big Rivers' 2013 load forecast.
5. Refer to page 17, footnote 15 of the IRP. Produce the Indiana Technical Resource Manual referenced therein.



6. Refer to page 21 of the IRP. With regards to each “forward power sales from Wilson” referenced therein:
  - a. Describe each forward power sales agreement, including:
    - i. The entity to which such sales are to be made.
    - ii. The price at which such sales are to be made.
    - iii. The amount of power to be sold.
    - iv. The dates when sales under such agreement are to begin and conclude.
  - b. Produce each forward power sales agreement.
  - c. State whether Big Rivers has entered into any additional forward power sales agreements for any of its generating units since those referenced in the IRP.
    - i. If so, provide the same details regarding each such agreement as requested in subsection a above and produce any such forward power sales agreement.
  
7. Refer to page 22 of the IRP. With regards to the replacement load that Big Rivers has “secured”:
  - a. Describe each replacement load agreement, including:
    - i. The entity making up such replacement load.
    - ii. The price at which such replacement load sales are to be made.
    - iii. The amount of replacement load to be served.
    - iv. The time frame covered by the agreement.
    - v. The load factor of such replacement load.
    - vi. The amount of energy to be sold under such agreement.

- b. Produce each such replacement load agreement.
  - c. State whether Big Rivers has secured any additional replacement load since that referenced in the IRP.
    - i. If so, provide the same details regarding such replacement load as requested in subsection a above and produce any such replacement load agreement.
8. Refer to page 22 of the IRP. With regards to the 25MW of growth in native load due to customer additions, identify for each customer addition:
- a. The type of addition.
  - b. The amount of load.
  - c. The load factor.
  - d. The date by which such additional load came or is coming online.
  - e. The amount of energy expected to be sold to such customers.
9. Refer to page 22 of the IRP. With regards to the “potential arrangements with other businesses” that Big Rivers is “actively negotiating,” identify:
- a. Each business being negotiated with.
  - b. The status of such negotiations.
  - c. The amount of capacity and energy at issue in the negotiations.
  - d. The price at which such capacity and energy would be provided.
  - e. The date by which such additional load would come online.

10. Refer to page 29 of the IRP.
  - a. Produce the February 2014 review of the 2013 Load Forecast referenced therein.
  - b. State whether Big Rivers has created any other load forecast since the 2013 Load Forecast.
  - c. If so, produce such forecast.
  
11. Refer to Table 4.6 on page 35 of the IRP. Provide the basis for the change in Small C&I load projected over the 2015 through 2028 time frame, and all analyses, documents, modeling, and data supporting such projected change.
  
12. Refer to page 37 of the IRP. With regards to the idling of the Coleman Station:
  - a. State whether Big Rivers still estimates 2016 or 2017 as the year in which it may be justified to return the Coleman Station to operational status.
    - i. If not, identify when Big Rivers projects it will be justified to return the Coleman Station to operational status.
  - b. Produce any studies, analyses, modeling, and data regarding when it may be justified to return the Coleman Station to operational status.
  - c. State whether any capital or maintenance projects would be needed to return the Coleman Station to operational status:
    - i. If so, identify each such project and its cost, and explain why such project would be needed.
    - ii. If not, explain why not.

- d. State whether Big Rivers has carried out any net present value revenue requirement analysis or other economic analysis of potential future operation of the Coleman Station.
  - i. If so, produce such analysis, including any modeling input and output files, workpapers, and other supporting data.
  - ii. If not, explain why not.

13. Refer to page 37 of the IRP. With regards to Big Rivers' consideration of selling or leasing the Coleman Station or Wilson Station:

- a. Describe the terms of each offer to sell or lease Coleman or Wilson, including:
  - i. Price.
  - ii. Amount of capacity.
  - iii. Amount of load.
  - iv. Time frame.
  - v. Entity to which the offer was made.
- b. Explain the status of each offer to sell or lease Coleman or Wilson.

14. Refer to Table 4.15 on page 53 of the IRP. Produce any studies, analyses, modeling files, and/or data used to identify the price elasticities for Big Rivers' three members.

15. With regards to each Strategist modeling run carried out as part of this IRP:

- a. Produce all modeling input and output files (in electronic machine readable format with formulas intact) for each run.

- b. Produce any workbooks or workpapers, in electronic, machine readable format with original formulas intact, used to develop or process inputs to the Strategist model.
- c. Produce any workbooks or workpapers, in electronic, machine readable format with original formulas intact, used to review or process outputs of each Strategist model run.

16. State whether Big Rivers, or any of its consultants, modeled or otherwise evaluated any scenarios in which:

- a. Any of the Company's generating units were retired.
- b. Replacement load was assumed to remain below 800 MW through 2028.
- c. MISO market energy prices were lower than in the base case assumption.
- d. MISO market capacity prices were lower than in the base case assumption.
- e. Higher levels of savings from demand side management programs are achieved than the levels assumed in the base case.
- f. If the answer is "yes" to any of parts a-e, explain the results of such scenario, and produce any analyses, documents, modeling files, and data regarding such scenario.
- g. If the answer is "no" to any of parts a-e, explain why such scenario was not modeled or otherwise evaluated.

17. Refer to page 56 of the IRP. Produce the analysis of the impacts of a potential carbon tax referenced therein.

18. Refer to the confidential version of page 57 of the IRP, which states that a carbon price scenario “may impact rural system and industrial class energy requirements by approximately [REDACTED], respectively... assuming the industrial class is capable of responding to price increases, which Big Rivers believes is unlikely.”
- a. Identify the assumptions that were used to calculate the potential [REDACTED] impact on rural class energy requirements.
  - b. Identify the assumptions that were used to calculate the potential [REDACTED] impact on industrial class energy requirements.
  - c. The quoted passage suggests that it is unlikely that [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

19. Refer to page 85 of the IRP. With regards to the potential EPA implementation of CSAPR in its original form discussed therein:

- a. Produce any study, analysis, modeling files, and data regarding the contention that CSAPR will not have a significant impact on Big Rivers’ operations because the Coleman Station has been idled.
- b. Produce any study, analysis, modeling files, and data regarding the statement that further NOx emission reductions could be required if the Coleman Station is returned to service.

- c. State whether the return to service of the Coleman Station would create the need for further SO<sub>2</sub> emission reductions under CSAPR.
  - i. If so, identify such further SO<sub>2</sub> emission reductions and any steps Big Rivers would need to take to achieve such further reductions.
  - ii. If not, explain why not.

20. State whether Big Rivers has modeled or otherwise analyzed whether emissions from any of its coal-fired electric generating units would cause or contribute to exceedances of the 1-hour SO<sub>2</sub> National Ambient Air Quality Standards.

- a. If so:
  - i. Explain the results of such modeling or analysis.
  - ii. Produce any report documenting such results.
  - iii. Identify any additional or upgraded pollution controls that may be needed on any of Big Rivers' generating units to avoid such exceedances.
- b. If not, explain why not.

21. Refer to page 86 of the IRP. With regards to MATS compliance at Big Rivers' coal-fired electric generating units:

- a. Identify the most recent estimated capital cost of installing ACI and DSI systems on each of Green Units 1 and 2.
- b. Identify the current schedule and estimated capital cost for installing ACI and DSI on the Wilson Station.

- c. Identify the current schedule and estimated capital cost for installing ACI and DSI on the Coleman Station.
- d. Explain why the cost of installing ACI and DSI on the Coleman Station are included in IRP Environmental Cases 1 and 2, but not in the IRP /Base Case.
- e. For each of Big Rivers' coal-fired electric generating units, identify the estimated variable operating cost, in \$/MWh, of operating DSI and ACI on the unit.

22. Refer to page 90 of the IRP. Produce any report or other documentation of the results of the Sargent and Lundy review of the Clean Water Act 316(b) regulation and estimated costs to comply.

23. Refer to page 90 of the IRP. Produce any analysis, study, or other document regarding the potential impact of the US EPA's proposed existing source greenhouse gas regulations on Big Rivers' electric generating units including, but not limited to, the potential need to idle the Coleman and/or Wilson Stations in order to comply.

24. Please refer to the confidential version of page 91 of the IRP.

- a. For each of the "Projected Cap Ex 2018" values shown on that page, provide any analyses, reports, or other documents supporting the development of these cost estimates



- b. For each of the “Projected Incremental O&M 2019” values shown on that page, provide any analyses, reports, or other documents supporting such cost estimates.
- c. State whether any of the pollution controls referenced on page 91 of the IRP are included in the Base Case scenario for this IRP.
  - i. If so, identify which ones.
  - ii. If not, explain why not.

25. Refer to page 92 of the IRP. With regards to the evaluation of converting a portion of Big Rivers’ existing coal-fired fleet to natural gas:

- a. Explain the results of any such evaluation that has occurred to date and produce any reports or other documents regarding such evaluation.
- b. Produce any modeling files and workpapers (in electronic, machine-readable format with formulas intact) for any such evaluation that has occurred to date.
- c. To the extent that Big Rivers is still undertaking such evaluations, identify the estimated schedule for completing such evaluations.

26. Refer to Table 10.3 on page 109 of the IRP.

- a. Produce any modeling files or workpapers (in electronic, machine readable format with formulas intact) used to calculate the present value costs identified therein.
- b. Identify the present value costs for the rest of the 17 sensitivity analyses that Big Rivers carried out but for which results are not identified in Table 10.3.

- c. Produce any modeling files or workpapers (in electronic, machine readable format with formulas intact) used to calculate the present value costs for the rest of the 17 sensitivity analyses.

27. Refer to page 110 of the IRP. With regards to natural gas prices:

- a. Identify for each of the years 2014 through 2028 the projected price of natural gas used by Big Rivers in the IRP.
- b. Explain the basis for such natural gas price projection.
- c. Identify and produce any natural gas price forecasts or other reports, analyses, or documents relied on by Big Rivers in developing the natural gas price projection.
- d. Produce any report, analysis, or study supporting the contention that “significant questions [have] surface[d] in the industry about natural gas costs and availability” and that gas may “lose much of the favor it currently enjoys in the electric power industry.”

28. With regards to Big Rivers’ Base Case assumptions regarding the price of coal:

- a. Identify for each of the years 2014 through 2028 Big Rivers’ coal price projection
- b. Explain the basis for such coal price projection.
- c. Identify and produce any coal price forecasts or other reports, analyses, or documents relied on by Big Rivers in developing the coal price projection.

- d. Identify the percent of Big Rivers' projected coal use for each of the years 2014 through 2028 that is already under a coal purchase contract.

29. Refer to page 110 of the IRP. Produce the reserve margin analysis referenced therein.

30. Refer to Table 11.1 on page 112 of the IRP.

- a. Produce any modeling files and workpapers (in electronic, machine-readable format with formulas intact) used to develop the data in Table 11.1.
- b. For each year of 2014 through 2028, identify the member revenues/sales amount in \$/MWh for each of the rural, small commercial and industrial, and large industrial classes for the base case scenario reported in Table 11.1.
- c. For each year of 2014 through 2028, identify the member revenues/sales amount in \$/MWh for each of the rural, small commercial and industrial, and large industrial classes for each of the sensitivity cases ran as part of the IRP.

31. Please refer to Appendix G of the IRP filing. With regards to the market energy prices presented therein:

- a. State whether the values presented in confidential Appendix G are in real or nominal dollars. If the values are in nominal dollars, identify what inflation rate is assumed.
- b. Explain how the forecasted market energy prices presented in confidential Appendix G were developed.
- c. Identify and produce any market energy price forecast relied on in developing the prices presented in confidential Appendix G.

- d. Identify the corresponding actual market energy prices for each month of January through July 2014.

32. Please refer to the “High/Low Capacity Prices” table in Appendix H of the IRP

- a. Provide the base, high, and low capacity prices used to calculate capacity revenues in this table, for each year from 2013 through 2028.
- b. State whether the capacity prices are in real or nominal dollars. If they are in nominal dollars, identify what inflation rate is assumed in these price estimates
- c. Explain how the capacity prices used to calculate capacity revenues identified in confidential Appendix H were developed.
- d. Identify and produce any capacity price forecast relied on in developing the capacity revenues presented in confidential Appendix H.

33. Produce, in machine readable format with formulas intact, the most recent version of Big Rivers’ long-term financial model, including all inputs and outputs through the year 2028.

34. State whether Big Rivers has evaluated the retirement, rather than idling, of any of its generating units as an option for mitigating the impact of the termination of the smelter contracts.

- a. If so:
  - i. Identify which unit or units were evaluated
  - ii. Explain the results of that evaluation

- iii. Produce any report or other document regarding that evaluation
- b. If not, identify and explain each reason why not.

35. For each of the Wilson, Green, Coleman, Reid, and 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 the most recent condition assessment for each unit.
- d. Produce any analysis or assessment of the impact that retirement of each unit would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability.
- e. Identify any transmission grid upgrades or changes that would be needed to allow for the retirement of any of the units.
- f. Produce any analysis or assessment of the need for the continued operation of each unit.
- g. Provide the remaining book value (plant balance) at the start of 2014.
- h. Provide the estimated market value of each unit at the start of 2014.
- i. Describe how Big Rivers estimated the market value of each unit.

36. For each of the following existing, proposed, or potential regulatory requirements, produce any evaluation of the pollution controls that would be needed, or the estimated costs that would be incurred, to bring each of Big Rivers' coal-fired electric generating units into compliance with the requirement:

- a. 1-hour SO<sub>2</sub> NAAQS.
- b. Section 316(b) of the Clean Water Act.
- c. Section 316(a) of the Clean Water Act.
- d. Clean Water Act effluent limitation guidelines.
- e. Clean Air Interstate Rule.
- f. Ozone NAAQS.
- g. PM<sub>2.5</sub> NAAQS.
- h. Section 111(d) greenhouse gas regulations for existing sources.

37. Refer to Table 1-2 on page 5 of the DSM Potential Study attached as Appendix B to the IRP.

- a. Identify the annual incentive budget that would be needed to achieve the savings identified for the Achievable Potential Scenario.
- b. Explain how Big Rivers initially settled on a \$1 million per year DSM incentives budget, and why the Company has proposed to continue that level of funding, adjusted for inflation, rather than a higher level of funding.
- c. Given that Big Rivers' DSM Potential Study finds that every dollar of DSM spending would provide more than two dollars of benefits in the Achievable Potential Scenario, explain why the Company is not proposing to pursue that scenario.
- d. Given that Big Rivers' DSM Potential study finds that every dollar of DSM spending would provide more than two dollars of benefits under the \$2

million program scenario, explain why the Company is not proposing to pursue that scenario.

38. With regards to the evaluation of demand response programs in the DSM Potential Study attached as Appendix B to the IRP:

- a. Produce any modeling files and workpapers (in electronic, machine readable format with formulas intact) evaluating the cost-effectiveness of potential Big Rivers demand response programs.
- b. State whether the ability to bid demand response programs into MISO was factored into the evaluation of the cost-effectiveness of potential Big Rivers demand response programs.
  - i. If so, explain how such ability was factored in.
  - ii. If not, explain why not.
- c. Explain why you assumed no benefit of demand response for avoided transmission or distribution demand.

39. State whether Big Rivers has evaluated what role demand side management could play in achieving the carbon reduction goals set forth in EPA's proposed greenhouse gas emission regulations for existing sources.

- a. If so, explain the results of such evaluation and produce any report, modeling files, workpapers, or other documents regarding such evaluation.
- b. If not, explain why not.

40. Refer to Table 9.2 on page 97 of the IRP. With regards to the wind supply-side option identified therein:

- a. Identify and produce any studies, analyses, or other documents upon which the estimated overnight capital cost and fixed O&M rate are based.
- b. Identify the annual capacity factor you assumed for wind resources in your IRP.
- c. Identify the levelized cost of energy from wind resources you assumed in your IRP.
- d. State whether Big Rivers has issued any RFPs for wind power in the past three years.
  - i. If so, explain and produce the results of such RFP.
  - ii. If not, explain why not.

41. Refer to Table 9.2 on page 97 of the IRP. With regards to the photovoltaic supply-side option identified therein:

- a. Identify and produce any studies, analyses, or other documents upon which the estimated overnight capital cost and fixed O&M rate are based.
- b. Identify the annual capacity factor you assumed for photovoltaic resources in your IRP.
- c. Identify the levelized cost of energy from photovoltaic resources you assumed in your IRP.
- d. State whether Big Rivers has issued any RFPs for photovoltaic resources in the past three years.



- i. If so, explain and produce the results of such RFP.
- ii. If not, explain why not.

42. Refer to Section 10.2 of the IRP. Identify and explain any correlation you assumed between any of the following in your modeling of the Base Case and 17 sensitivity cases:

- a. Natural gas prices.
- b. Carbon prices.
- c. Coal prices.
- d. Energy prices.
- e. Load.

Respectfully submitted,



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Dated: August 20, 2014


## CERTIFICATE OF SERVICE

I certify that I mailed a copy of Ben Taylor and Sierra Club's First Request for Information from Big Rivers Electric Corporation by e-mail and first class mail on August 20, 2014 to the following:

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