

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF BIG RIVERS ELECTRIC)	
CORPORATION FOR AN APPROVAL OF ITS)	
2012 ENVIRONMENTAL COMPLIANCE PLAN,)	
FOR APPROVAL OF ITS AMENDED)	CASE NO.
ENVIRONMENTAL COST RECOVERY)	2012-00063
SURCHARGE TARIFF, FOR CERTIFICATES OF)	
PUBLIC CONVENIENCE AND NECESSITY,)	
AND FOR AUTHORITY TO ESTABLISH A)	
REGULATORY ACCOUNT)	

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO
BEN TAYLOR AND SIERRA CLUB

Ben Taylor and Sierra Club (collectively "Sierra Club"), pursuant to 807 KAR 5:001, is to file with the Commission the original and ten copies of the following information, with a copy to all parties of record. The information requested herein is due on or before August 6, 2012. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Sierra Club shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which Sierra Club fails or refuses to furnish all or part of the requested information, it shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request.

1. Refer to the Direct Testimony of Rachel S. Wilson (“Wilson Testimony”) at pages 8-9, lines 18-4. Provide copies or sources of documents referred to in list items A-C.

2. Refer to the Wilson Testimony at page 20, line 3. What level of demand side management (“DSM”) is reasonable for a company such as Big Rivers Electric Corporation (“Big Rivers’) that has smelters as 70 percent of its load?

3. Refer to the Wilson Testimony at page 20, lines 10-11. Given the depreciation study conducted by Burns & McDonald that assesses unit conditions and life extension concerns, what specific expectations would you have regarding further degradation of heat rate, forced outages, and availability of Big Rivers’ generation units?

4. Refer to the Wilson Testimony at page 24, lines 26-28. Provide a listing of all of the instances where a utility’s evaluation of a market replacement option resulted in a

lower net present value revenue requirement (“NPVRR”) when compared to a natural gas combined cycle (“NGCC”) replacement option. Include the NPVRR for each option reviewed and the NPVRR difference between the market replacement option and the NGCC replacement alternative.

5. Refer to the Wilson Testimony at page 25, lines 1-14.

a. Provide details on how the effects of natural gas and CO₂ emission prices were removed from the hourly market forecast price.

b. Explain and provide sources to support the assertion that the marginal emission rate from coal-fired units is 1.0 – 1.1 tons CO₂/MWh and the marginal emission rate from natural gas-fired units is 0.6 – 0.7 tons CO₂/MWh.

c. Provide support for the conclusion that the PACE market prices forecast results in a marginal emission rate of 1.8 tons CO₂/MWh in later years.

6. Refer to the Wilson Testimony at page 26.

a. Is the testimony suggesting that the heat rates and availability assumed by Big Rivers are too high? If so, by how much? (Provide in percentage or absolute amounts).

b. Is this modeling assumption inconsistent with general practices?

c. What assumptions for heat rates and availability were used for other Midwest Independent Transmission System Operator, Inc. (“MISO”) units that were used in the Big Rivers, PACE and ACES analyses?

7. Refer to Wilson Testimony at page 27, lines 15-18. Given the uncertainty as to exact costs for new control technology – some experts suggesting it will go up in price as demand increases while others note that actual results indicate that prices are

below expectations, what level of inflation should be used for the capital expenditures during the procurement and construction process? Explain your response.

8. Refer to the Wilson Testimony at page 28, lines 14-17. Provide the basis for the statement that one or more of Big Rivers units would likely require additional retrofits to be in compliance with the Mercury Air Toxics Rule.

9. Refer to the Wilson Testimony at page 31, lines 21-24. Is there any evidence to support the argument that there are significant energy efficiency savings available that would reduce Big Rivers' load given the high level concentration of the smelter's load?

10. Refer to the Wilson Testimony at page 32, lines 6-15. Provide details on input assumptions that were different from those used by Big Rivers. Provide the range and an explanation as to why they were used.

11. Refer to the Wilson Testimony at page 33, lines 4-8. Provide an electronic copy of the cash flow model with all inputs and assumptions.

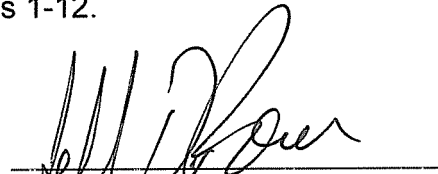
12. Refer to the Wilson Testimony at page 33, Table 8 – Synapse Recommended Case. Provide all inputs, analyses and assumptions relied upon to produce this table. Include a listing of each assumption, the references to support the assumption, a listing of all data sources used, and the electronic versions of the spreadsheets or other applications used to calculate the values in the table.

13. Refer to the Direct Testimony of William Steinhurst (“Steinhurst Testimony”) at page 10, line 29, which suggests that wind energy be considered as an effective alternative energy source to replace Big Rivers generation. Please explain how the addition of on-shore wind energy could result in a lower cost option.

15. Refer to the Steinhurst Testimony, page 11, lines 11-29. The testimony states that a larger DSM load reduction should be assumed. Recognizing that the majority of the load on the Big Rivers' system is associated with the two smelters, explain how the remaining load can be significantly reduced through further DSM programs so as to replace a Big Rivers generating unit. Provide specific programs and their estimated impact on demand.

16. Refer to the Steinhurst Testimony at page 12, lines 20-22. It states there "If BREC had done its analysis on a unit-by-unit basis, it is likely that DSM could have offset the need to retrofit or replace some units." Provide a detailed explanation in support of this statement. Include in the explanation the reasoning for concluding that the result is "likely."

17. Refer to the Steinhurst Testimony, page 14. Provide a reference to the estimate provided in the scenario as presented at lines 1-12.



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DATED JUL 30 2012

cc: Parties of Record

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