SIERRA CLUB
FOUNDED 1892

VIA COURIER AND EMAIL

June 22, 2012

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601

Re: Intervenor Ben Taylor and Sierra Club's 2nd Set of Requests for Information to Big Rivers Electric Corp.
Docket 2012-00063

Dear Mr. Derouen,

Enclosed please find 11 copies of the public version of Ben Taylor and Sierra Club's 2nd set of requests for information to Big Rivers Electric Corp. in docket 2012-00063. Also included in this filing is a confidential version of the document in a sealed envelope marked "Confidential". Questions 25 (pp. 14) and 48 (pp. 19-20) include information that is subject to a petition for confidential treatment filed by James Miller and Tsyon Kamuf, Counsel for Big Rivers Electric Corp.

Sincerely,

James Giampietro
Sierra Club Environmental Law Program
85 2nd Street, 2nd Floor
San Francisco CA, 94105
Office: (415)977-5638
james.giampietro@sierraclub.org

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan, Approval of its Amended Environmental Cost Recovery Surcharge Tariffs, and for the Certificates of Public Convenience and Necessity, and the Authority to Establish a Regulatory Account	)))))	**CASE NO. 2012-00063**

PUBLIC VERSION

BEN TAYLOR AND SIERRA CLUB'S SUPPLEMENTAL REQUESTS FOR INFORMATION TO BIG RIVERS ELECTRIC CORPORATION

Intervenors Ben Taylor and Sierra Club (collectively "Environmental Intervenors") pursuant to the Kentucky Public Service Commission's ("Commission") April 30, 2012 Order ("April 30 Order") and the Commission's June 19, 2012 Order ("June 19 Order"), propound the following supplemental requests for information on the Big Rivers Electric Corporation ("Big Rivers") regarding Big Rivers' application for certificates of public convenience and necessity and approval of its 2012 compliance plan that is the subject of the above captioned proceeding. As provided for in the June 19 Order, Environmental Intervenors reserve the right to submit additional supplemental requests for information regarding modeling-related information by June 27, 2012.

Big Rivers shall answer these requests for information in the manner set forth in the April 30 Order and by no later than the July 6, 2012 deadline set forth in the Appendix of the June 19 Order. Please produce the requested documents in electronic format at the offices of Sierra Club,

85 Second Street, 2nd Floor, San Francisco, CA 94105 or at such other location as may be mutually agreed upon between counsel of record.

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," "Cooperative" 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_2" 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.

"CPCN" means certificate of public convenience and necessity

"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

"DSM" means demand-side management programs including demand-response, interruptible load, and efficiency programs.

"Environmental retrofit" refers to retrofits contemplated in this docket for the purposes of meeting environmental compliance obligations

"Environmental retrofit unit" means generating units owned or operated by BREC that are expected to obtain environmental retrofits as contemplated in this docket.

"ESP" means electrostatic precipitator

"FGD" means flue gas desulfurization

"HCl" means hydrogen chloride

"HMP&L" means Henderson Municipal Power & Light

"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.

"MATS" means Mercury Air Toxics Standard Rule

"MISO" means Midwest Independent Transmission System Operator, Inc

"MWh" means megawatt-hours

"NOx" means nitrogen oxides

"NPV" means net present value

"NPVRR" means net present value of revenue requirements

"O&M" means operation and maintenance

"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_2" means sulfur dioxide

PRIVILEGE OR CONFIDENTIALIITY

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 Commission to adjudicate the validity of the claim if called upon to do so. 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.

To the extent that you can legitimately claim that any interrogatory response or responsive document is entitled to confidentiality, the Environmental Intervenors are willing to enter into a confidentiality agreement that would protect such response or document from public disclosure.

TIME

Unless otherwise provided, the applicable time period for each of these requests for information is January 1, 2009 to the present.

REQUESTS FOR INFORMATION

1. Refer to your response to SC 1-3, which gives annual capital and O&M expenditures by plant:

    a. Please provide the annual non-environmental capital expenditures expected or projected to be made by year, **by unit**, and by expenditure type for each of the years listed in your response.
    b. Please provide annual fixed O&M costs by year, **by unit** for the environmental controls requested in this CPCN.
    c. Please provide annual fixed O&M costs by year, **by unit** for all other equipment.
    d. Please provide annual variable O&M costs by year, **by unit** for the environmental controls requested in this CPCN.
    e. Please provide annual variable O&M costs by year, **by unit** for all other equipment.

2. Please confirm or deny the following:

a. BREC is requesting environmental surcharge and CPCN for environmental retrofits with capital and O&M estimates developed only by Sargent & Lundy and presented in Exhibit Berry-2.
    i. If environmental surcharge and/or CPCN capital and/or O&M estimates have been developed or vetted by any other party aside from Sargent & Lundy, please provide such estimates and the source documentation and work papers from which those estimates are derived.
b. To date, BREC has not contracted for engineering services for any of the environmental retrofits.
    i. If BREC has contracted for engineering services, please provide the name of each engineering services contractor, the date engineering services were contracted, the specific services and retrofits for which BREC has contracted, and any reports or files delivered to date by each such contractor.
c. The estimated environmental retrofit capital costs do not include owner's costs.
d. The estimated environmental retrofit capital costs do not include AFUDC.
e. To date, BREC has not contracted for procurement services for any of the environmental retrofits.
    i. If BREC has contracted for procurement services, please provide the name of each procurement services contractor, the date procurement services were contracted, the specific retrofits for which services were contracted, and any reports or files delivered to date by each such contractor.

3. Regarding the estimated capital expenditures for each environmental control contemplated in this proceeding:

    a. Please define the error range (in %+/- or $+/-) of the estimates for each of the environmental controls;
    b. State whether BREC considers each of these estimates preliminary, developing, or final (i.e. contractually certain)? If BREC uses other terminology to define this stage of estimate development, please provide the appropriate terminology.
    c. Please provide the estimated annual capital outlay for each of the environmental controls, without AFUDC, in nominal dollars. Please provide in electronic spreadsheet form.
    d. Please provide the estimated annual AFUDC for each of the environmental controls. Please provide in electronic spreadsheet form.
    e. Will BREC return to this Commission for an environmental surcharge adjustment if the capital and/or O&M costs of the environmental retrofit projects are higher than predicted by S&L? If so, when?
    f. Will BREC return to this Commission for an environmental surcharge adjustment if the capital and/or O&M costs of the environmental retrofit projects are lower than predicted by S&L? If so, when?

4. Please provide a record of each major capital project (i.e., individual projects over $20 million) at each of BREC's coal-fired generating units from 2000-2012, inclusive. For each project, please provide the year, descriptive title, unit or units applicable, the estimated capital cost at this stage of development (as defined in request 3b, above), the final capital cost, and the capital amount approved for recovery from Kentucky ratepayers (exclusive of returns on investment). Please provide in electronic spreadsheet form.

5. With respect to BREC unit equivalent availability, forced outage rates, and heat rates:

    a. State whether BREC expects constant, increasing, or decreasing unit availability for each of the environmental retrofit units.
    b. Please provide an annual forecast for unit availability for each of the environmental retrofit units through 2026. Please provide in electronic spreadsheet form.
    c. State whether BREC expects constant, increasing, or decreasing forced outage rates for each of the environmental retrofit units.
    d. Please provide an annual forecast for forced outage rates each of the environmental retrofit units through 2026. Please provide in electronic spreadsheet form.
    e. State whether BREC expects constant, increasing, or decreasing heat rates for each of the environmental retrofit units.
    f. Provide an annual forecast for heat rates for each of the environmental retrofit units through 2026.
    g. Please provide any work papers or studies documenting expected future unit availability, equivalent forced outage rates, or heat rates at the BREC units through 2026.

6. Refer to Exhibit Berry-2:

    a. State whether BREC expects that the emission control projects shown in Exhibit Berry-2 will have any impact on unit heat rates.
    b. Please identify any changes in unit heat rates that might be expected as a result of emissions control projects.
    c. Please provide the work papers detailing expected changes in unit heat rates with the addition of emissions control projects.

7. Refer to p. 27 line 18 to p. 28 line 3 of the testimony of Robert Berry

    a. State whether the Company is aware of the President's statement dated September 2011 on the delay of the ozone NAAQS to 2013?

b. Please explain, in detail, the discrepancy between the President's commitment to reconsider the ozone standard in 2013 and the Company's assertion that "potential NAAQS reductions are not expected to be published until 2016."
c. State whether the Company is aware of the "Draft Regulatory Impact Analysis Final National Ambient Air Quality Standard for Ozone" issued by the EPA, dated July 2011 (http://www.epa.gov/airquality/ozonepollution/pdfs/201107_OMBdraft-OzoneRIA.pdf)?
d. At what level does the Company expect new primary ozone NAAQS, if issued, to be set (in parts per million)?

8. Refer to p. 27 line 18 to p. 28 line 3 of the testimony of Robert Berry, and to the responses to SC 1-19 and SC 1-20:

a. If more stringent ozone NAAQS reductions are indeed promulgated in 2016 and require compliance by 2018, would BREC apply for a CPCN from the Commission for any required emissions control projects?
b. If so, when does the Company expect it would need to file its application?
c. Would BREC expect to recover capital cost expenditures incurred as a result of ozone NAAQS compliance?
d. Has BREC quantified the rate increase that might be expected if advanced low NOx burners are installed at the Coleman units? If so, please identify the expected rate increase resulting from installation advanced low NOx burners at the Coleman units.
e. Please provide any work papers that detail the calculations behind the expected rate increase associated with the advanced low NOx burners at the Coleman units.
f. Has BREC quantified the rate increase that might be expected if an SCR is installed at Green Unit 1? If so, please identify the expected rate increase resulting from installation of an SCR at Green Unit 1.
g. Please provide any work papers that detail the calculations behind the expected rate increase associated with the installation of an SCR at Green Unit 1.

9. Refer to the Company's response to SC 1-35:

a. For what purpose did the Company choose to retrofit the burners at HMP&L 1 & 2 and Wilson? Please provide a detailed description.
b. Please provide citations to regulatory requirements or other decisions requiring such retrofits.
c. Please provide air and construction permits issued by the Kentucky Department for Environmental Protection (KY DEP).
d. Please provide applications or notices provided by the Company to the KY DEP requesting such permits.

e. Please provide documentation and/or workpapers supporting the decision to retrofit the burners at HMP&L 1 & 2, and Wilson. Provide any spreadsheets in original, electronic format.
f. Please provide the schedule associated with the capital expenditures for the low NOx burner (LNB) upgrades at the HMP&L and Wilson units, by year and by unit, which gives a timeline detailing capital that has already been spent, as well as capital that has yet to be spent. Please provide schedule in electronic spreadsheet form.
g. Please provide a schedule of cancellation fees for the LNB projects.
h. What percentage of capital expenditures could be avoided if the HMP&L and/or Wilson LNB projects were to be canceled as of July 1st, 2012?
i. What percentage of capital expenditures could be avoided if the HMP&L and/or Wilson units were to retire in 2013?
j. What percentage of capital expenditures could be avoided if the HMP&L and/or Wilson units were to retire in 2015?

10. Refer to Company's response to SC 1-40:

a. With respect to ESP upgrades:
    i. When does BREC expect to test the effect of dry sorbent injection on ESP performance? If BREC does not expect to conduct such a test, explain why not.
    ii. If ESP upgrades are in fact required at any of BREC's units, does the Company expect to apply for a CPCN from the Commission for these projects?
    iii. If BREC expects to apply for a CPCN for such ESP upgrades, when does the Company expect it would need to file its application?
    iv. Would BREC expect to recover capital cost expenditures incurred as a result of ESP upgrades?
    v. Has BREC quantified the rate increase that might be expected if ESP upgrades are necessary?
    vi. Please identify the expected rate increase resulting from any ESP upgrades.
    vii. Please provide any work papers that detail the calculations behind the expected rate increase associated with the ESP upgrades.
b. With respect to polishing baghouse technology:
    i. If BREC determines that ESP upgrades are still not sufficient for MATS compliance at one or more units, does the Company plan to evaluate polishing baghouse technology?
    ii. If BREC determines that a polishing baghouse is necessary at one or more units, does the Company expect to apply for a CPCN from the Commission?
    iii. If BREC expects to apply for a CPCN for such polishing baghouse upgrades, when does the Company expect it would need to file its application?

iv. Would BREC expect to recover capital cost expenditures incurred as a result of polishing baghouse upgrades?
v. Would BREC expect to recover capital cost expenditures incurred as a result of polishing baghouse installation?
vi. Has BREC quantified the rate increase that might be expected if a polishing baghouse is necessary at one or more units?
vii. Please identify the expected rate increase resulting from any polishing baghouse installations.
viii. Please provide any work papers that detail the calculations behind the expected rate increase associated with a polishing baghouse at one or more units.

c. With respect to full baghouse technology:
i. If BREC determines that ESP upgrades are still not sufficient for MATS compliance at one or more units, does the Company plan to evaluate full baghouse technology?
ii. If BREC determines that a full baghouse is necessary at one or more units, does the Company expect to apply for a CPCN from the Commission?
iii. If BREC expects to apply for a CPCN for such full baghouse upgrades, when does the Company expect it would need to file its application?
iv. Would BREC expect to recover capital cost expenditures incurred as a result of full baghouse upgrades?
v. Would BREC expect to recover capital cost expenditures incurred as a result of full baghouse installation?
vi. Has BREC quantified the rate increase that might be expected if a full baghouse is necessary at one or more units?
vii. Please identify the expected rate increase resulting from any full baghouse installations.
viii. Please provide any work papers that detail the calculations behind the expected rate increase associated with a full baghouse at one or more units.

11. Refer to your response to Staff 1-3:

a. Are the market energy purchases that will be made during the time Wilson is offline taken into account in BREC's calculations of revenue requirements and NPVRR?
b. Please provide the quantities of market purchases and associated prices that are expected to occur while Wilson is offline.

12. Refer to your response to Staff 1-37:

a. Are the market energy purchases that will be made during the time the BREC units are offline taken into account in BREC's modeling and calculations of revenue requirements and NPVRR?

b. Please provide the quantities of market purchases and associated prices that are expected to occur while the BREC units are offline.

13. Refer to your response to Staff 1-19, which states that "there is no capital cost component associated with increasing the limestone quality":

    a. State whether there is an O&M cost component associated with increasing the limestone quality.
    b. If so, is that included in the O&M cost estimate shown in Exhibit Berry-2?
    c. Please provide an estimate of the O&M cost of increasing the limestone quality, by year.
    d. State whether limestone of better quality has been tested in the Coleman units to ensure that it does in fact improve the performance of the scrubber.
    e. If so, please provide the results of those tests.
    f. If not, explain why not.

14. Refer to p. 8 lines 4-11 of the testimony of William DePriest, which describes the types and quantities of projects for which S&L has provided, or is providing, engineering services.

    a. State whether S&L is providing or has provided engineering services for any projects relating to the Coal Combustion Residuals rule.
    b. If so, how many?
    c. If not, how many utilities have asked S&L for estimates of the expected cost of compliance with the CCR rule?
    d. State whether S&L is providing or has provided engineering services for any projects relating to the 316(b) rule?
    e. If so, how many?
    f. If not, how many utilities have asked S&L for estimates of the expected cost of compliance with the 316(b) rule?

15. Refer to p. 15 lines 11-22 of the testimony of William DePriest, which recommends low NOx burners at the Coleman units in order to reduce the burden of purchasing allowances to comply with CSAPR, but states that "future allowance pricing will play a role in whether this recommendation is exercised."

    a. When does BREC expect to make a decision as to whether low NOx burners will be installed at the Coleman units?
    b. What is the allowance price at which BREC believes low NOx burners on the Coleman units become the more economic choice for NOx compliance?

16. Refer to p. 20 lines 13-16 of the testimony of William DePriest, which states that BREC will have the option of purchasing NOx compliance allowances in lieu of using low NOx burners at the Coleman units. Are these NOx allowance purchases taken into account in BREC's modeling and calculations of revenue requirements and NPVRR?

17. Refer to p. 21 lines 12-23 of the testimony of William DePriest, which states that the Wilson FGD and Green 2 SCR projects will not be completed in time to meet current CSAPR requirements in 2014.

    a. Has BREC quantified and modeled the SO2 and NOx allowances that it expects to have banked in 2014?
    b. Has BREC quantified and modeled the SO2 and NOx allowances that it expects to need to purchase from 2014 until the time these projects are completed?
    c. Does BREC expect that the emissions control projects necessary to comply with the MATS rule will be completed by the compliance deadline?
    d. If not, how does BREC expect to comply with the MATS rule?

18. Refer to Exhibit DePriest-2, page 5-1, which states that capital cost estimates for emission control projects do not include owner costs or AFUDC.

    a. Please provide estimates of owner costs for each of the emission control projects examined by Sargent & Lundy in this study, including those not selected by BREC for installation.
    b. Please provide estimates of AFUDC for each of the emission control projects examined by Sargent & Lundy in this study, including those not selected by BREC for installation.

19. Refer to p. 9 line 18 of the testimony of John Wolfram, which lists "emissions allowance expense" as one of the cost components to be included in BREC's proposed ES tariff rider.

    a. Please provide all work papers that demonstrate how BREC quantified the amount of emissions allowances it expects to purchase and the associated cost.
    b. What does BREC plan to do if the emissions allowance expense is much higher than anticipated?
    c. What does BREC plan to do if the emissions allowance expense is much lower than anticipated?

20. Refer to the December 11, 2011 Financial Statement of Big Rivers, provided as an attachment to response AG 1-37: Please explain why the fuel cost seen in the Statements of Operations increases by over 250% from 2009 to 2010

21. Refer to your response to AG 1-55. Please explain why there was the need for a 3% rate increase in "buy" scenario, but not in the "build" scenario to meet the TIER requirement.

22. Refer to your response to Staff 1-31. Please comment on how a 1.1 TIER would affect the results of the 2012 Compliance Plan, instead of the 1.24 TIER currently being used.

23. Refer to your response to KIUC 1-33, which mentions three different sets of forward power prices. Please state which power prices were used and in which section of the analysis, referencing any specific spreadsheet workbooks that have already been provided, and producing any spreadsheet workbooks that have not yet been provided.

24. Refer to Table 5-8 of Exhibit DePriest-2. Please provide any spreadsheets, modeling and calculations associated with the analysis behind the "Break Even" natural gas price for conversion of the Reid 1 or Green 1 & 2 units.

25. [redacted]

26. Does Big Rivers currently have an interruptible agreement with the smelters or any other large commercial or industrial customers to reduce load in event of an emergency or at times of high peak demand?

    a. If not, has Big Rivers ever considered such a program that would allow it to avoid some built capacity of electric generating facilities? Produce any analysis of such a program.
    b. If so, please provide the current or expected impacts of those agreements in energy reductions, peak demand reductions and cost savings, both annual and monthly throughout the time period analyzed during the study.

27. With regards to the load forecast used in your application and supporting analyses:
    a. Please provide the BREC load forecast, by month and year for both peak and energy requirements relied upon by ACES in its modeling analysis of the BREC units.
    b. State whether any other BREC load forecast was used in any portion of your application or supporting analyses.

i. If so, identify and explain the differences between the load forecasts that were used.

c. For each load forecast used in your application or supporting analyses:
   i. State what month and year the load forecast was developed
   ii. Produce the load forecast and any supporting analyses, worksheets, and modeling files.
   iii. Please provide a description of the models, methods, data and key assumptions used to develop the load forecast.
   iv. State whether the load forecast reflects the projected impacts of any DSM programs? If so, please identify each specific DSM program, the quantity of reductions from DSM embedded in the load forecast, and the basis for the quantity of reductions assumed, and produce any work papers regarding such reductions.
   v. State whether the load forecast reflects the projected impact of any federal efficiency standards or programs. If so, please identify each specific federal efficiency standard or program, the quantity of reductions in forecasted load resulting from those standards and programs, and the basis for the quantity of reductions assumed, and produce any work papers regarding such reductions.

d. Produce Big Rivers' most recent load forecast, along with any supporting analyses, work papers, or modeling files.

28. Refer to your response to SC 1-2 and KIUC 1-26:

a. Identify the current unamortized plant balance for each of Big Rivers' coal-fired generating units.
b. Identify the projected unamortized plant balance as of January 1, 2016 for each of Big Rivers' coal-fired generating units
c. Identify the estimated salvage value for each of Big Rivers' coal-fired generating units.

29. Refer to your response to SC 1-16a. For each year through 2026, identify the size in kWh of the energy shortfall that would need to be filled if Big Rivers' coal fleet operated at a capacity factor of 62%.

30. Refer to your response to SC 1-17.

a. Identify any coal-fired electric generating units that have achieved an average SO2 removal of at least 99% over a 30-day or 12-month period through the use of a wet FGD.
b. Produce any continuous emissions monitoring ("CEMs") data demonstrating achievement of at least 99% SO2 removal at a coal-fired electric generating unit through use of a wet FGD

c. Produce any wet FGD vendor guarantees of at least 99% SO2 removal for a coal-fired electric generating unit.
d. Identify the annual estimated cost of additional SO2 allowance purchases if the wet FGD proposed for the Wilson plant achieves an annual average of 98% SO2 removal, rather than 99%.

31. Refer to your response to SC 1-25(b). Produce the proposals "from Sargent & Lundy and other engineering firms for assistance on the projects listed in the Environmental Compliance Plan filing," and describe the status of Big Rivers' review of those proposals including when you plan to make a final decision on such proposals.

32. Refer to your response to SC 1-33. For each year of 2012 through 2033, identify the projected level in MWh of off-system sales.

33. Refer to your responses to SC 1-36 and KIUC 1-7. For each of SO2, HCl, and mercury:

a. State whether the results from each stack test are reflective of the average 30-day emissions of each pollutant from each coal unit
    i. If so, explain how they are reflective.
    ii. If not, explain why not
b. State whether the results from each stack test are reflective of the average annual emissions of each pollutant from each coal unit
    i. If so, explain how they are reflective
    ii. If not, explain why not
c. Produce the results of any other stack test for any of the those pollutants that has been carried out at any of the Big Rivers coal units since 2005
d. State whether information regarding the emissions of any of those pollutants has been provided to U.S. EPA in response to any Information Collection Request.
    i. If so, produce all such information.

34. Refer to your response to SC 1-37. Identify the basis for your belief that "estimated emission rates accurately characterize HCl emissions." Produce any documents supporting that belief.

35. Refer to your response to SC 1-39. Identify over what period of time and at what emission sources "limestone based, vertical wet FGD systems with forced oxidation have been proven to achieve SO2 removal efficiency of 99%." Produce any documents supporting that contention.

36. Refer to your response to SC 1-31.c. i and ii.

    a. Identify in dollars per mmBtu the "available U.S. Energy Information Administration pricing" referenced therein for coal for each year of 2012 through 2033.
    b. Identify in dollars per mmBtu the "available U.S. Energy Information Administration pricing" referenced therein for natural gas for each year of 2012 through 2033
    c. State specifically what document or documents contain the "available U.S. Energy Information Administration pricing at the time of the study" are referenced therein, and produce such document or documents.

37. Refer to your response to SC 1-45.c. Identify and produce any documents upon which your reasons identified therein for rejecting the use of lower sulfur Central Appalachian coal are based.

38. Compare your response to SC 1-45.c. with your response to SC 1-47.

    a. Explain why in the former response you state that the use of Central Appalachian coal would require "modifications to units," while in the latter you state that "it is not expected" that the burning of "lower sulfur bituminous coals would result in capital changes" at the HMP&L, Wilson, or Green Units.
    b. Identify any modifications that would be needed to burn lower sulfur bituminous coals at the HMP&L, Wilson, or Green Units, and the capital and O&M costs of such modifications.

39. Refer to your response to KIUC 1-14.

    a. Identify the "670MW bituminous coal-fired power plant" that the cost of replacing the Wilson FGD was based on, the year in which the scrubber on that plant occurred, and the cost of such scrubber. Produce any documents regarding that scrubber project.
    b. Identify the "similarly sized bituminous coal-fired units" upon which the SCR costs were based, the years in which SCRs were installed on those units, and the cost of installing each such SCR. Produce the "recent project cost data" for such units.
    c. Produce the "similar sized unit co-firing study" upon which the costs for the Green and Reid natural gas conversions were developed, and identify the unit in such study.
    d. Identify the "460MW coal-fired plant in the Southwest" upon which the costs for the Green and Reid natural gas conversions were developed, the cost of the conversion project for such plant, and the year in which that conversion occurred.

e. Identify the "similarly sized coal-fired plants" from which CCR modification costs were developed, the cost of the CCR modifications at such plants, and the years in which the CCR modifications took place. Produce the "recent conversion studies" and "recent past project data" referenced therein

40. Refer to your response to Staff 1-9. Produce any assessment or document regarding the impact that potential CCR and/or 316(b) regulations could have on the economics of Big Rivers' 2012 Plan or on the economic feasibility of the continued operation of any of Big Rivers' coal-fired generating units.

41. Refer to the table attached to your response to Staff 1-16.

a. Identify and produce each "quotation[] received from other projects during study" referenced therein.
b. Identify and produce each "similar compliance stud[y]" referenced therein.
c. Produce the "2012 Budget Input e-mail" and any documents supporting the information contained in that e-mail.
d. Identify and produce the "U.S. Department of Energy, Energy Information Administration" document or documents referenced therein.

42. Refer to your response to Staff 1-39. Identify the basis for the PACE Global projections of CO2 costs that were used in the ACES planning models, and produce any documents or work papers regarding such projections.

43. Refer to your response to AG 1-20.

a. Identify any SO2 emission limit that you included in your Title V permit renewal application for the Wilson plant if the new FGD scrubber is installed.
b. Identify the assumed SO2 removal efficiency for the new FGD scrubber upon which that emission limit is based.
c. Produce the Title V permit renewal application referenced therein.

44. Refer to the November 11, 2011 Budget Letter from Siemens regarding SESS Budget Proposal No. 4296.

a. Identify the SO2 removal percentage being achieved by the wet FGD at the Coleman facility.
b. Given that SESS Budget Proposal No. 4296 is proposing a "design which is expected to provide Wilson Unit 1 with SO2 removal levels similar to the Coleman facility," if the wet FGD at the Coleman facility is achieving less than 99% removal, identify the additional capital and O&M costs over those in the

SESS Budget Proposal that would be needed for the wet FGD at Wilson Unit 1 to achieve an average annual SO2 removal of 99%.

45. Refer to page 7 of the Big Rivers 2010 IRP, Appendix B.

a. Explain the basis for limiting the Big Rivers energy efficiency program budget to $11.2 million from 2011-2020.
b. State what level of annual energy efficiency program budget would be needed to achieve the level of energy savings and peak demand reduction identified for the achievable potential scenario.
c. Identify the basis for assuming a 30% market penetration by 2020 for achievable cost effective energy efficiency programs, rather than a higher market penetration level. Produce any documents supporting or regarding that 30% market penetration assumption.

46. Refer to p. 29 of the Big Rivers 2010 IRP, Appendix B.

a. State how the annual avoided energy costs identified in Table 5.1 compare to the annual energy costs assumed in the 2012 Plan.
b. State how the annual avoided capacity costs identified in Table 5.2 compare to the annual capacity costs assumed in the 2012 Plan.
c. Identify the levels of economic, achievable, and program potential energy and capacity savings using the annual energy and capacity costs assumed in the 2012 Plan rather than the annual energy and capacity costs assumed in the 2010 IRP.

47. With regards to either of Big Rivers' two smelter customers, identify:

a. Any energy efficiency, demand side management, or demand response programs that Big Rivers has evaluated to achieve energy savings or reduce peak demand for either of the two smelters
b. Any energy efficiency, demand side management, or demand response programs that Big Rivers has offered to either of the two smelters
c. Any energy efficiency, demand side management, or demand response program that either of the two smelters is currently implementing

48. [redacted]

a. [redacted]
b. [redacted]
c. [redacted]

d. [redacted]

e.

f.

g.

Respectfully submitted,

Joe Childers, Esq.
Joe F. Childers & Associates
300 Lexington Building
201 West Short Street
Lexington, Kentucky 40507
859-253-9824
859-258-9288 (facsimile)

Of counsel:

Kristin Henry
Staff Attorney
Sierra Club
85 Second Street
San Francisco, CA 94105
Phone: (415)977-5716
Fax: (415) 977-5793
kristin.henry@sierraclub.org

Dated: June 22, 2012

CERTIFICATE OF SERVICE

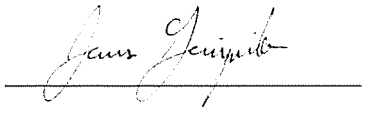
I certify that I mailed a copy of Ben Taylor and Sierra Club's Supplemental Requests for Information to Big Rivers Electric Corporation by first class mail on June 22, 2012 to the following:

James M. Miller, Esq.
Tyson Kamuf
Sullivan, Mountjoy, Stainback& Miller, PSC
100 Saint Ann Street
P.O. Box 727
Owensboro, KY 42302-0727

Jennifer B. Hans
Assistant Attorney General's Office
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

Michael L. Kurtz
Kurt J. Boehm
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, OH 45202

David C. Brown, Esq.
Stites & Harbison
1800 Aegon Center, 400 West Market Street
Louisville, KY 40202



James Giampietro