COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:	
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ELECTRONIC 2023 INTEGRATED RESOURCE) Case No. 2023-00310
PLAN OF BIG RIVERS ELECTRIC CORPORATION) Case No. 2023-00310
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SIERRA CLUB'S INITIAL REQUESTS FOR INFORMATION TO BIG RIVERS ELECTRIC CORPORATION

Sierra Club submits these Initial Requests for Information ("RFI") to Big Rivers Electric Corporation ("Big Rivers" or the "Company") in the above-captioned proceeding pursuant to the Commission's January 6, 2023 Order. Pursuant to that Order, the Company shall respond to these requests for information no later than March 10, 2023. Please produce the requested information in electronic format whenever possible, and to the following recipients:

Kathryn Huddleston Sierra Club 6406 N I-35, Suite 1805 Austin, TX 78752 kate.huddleston@sierraclub.org

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DEFINITIONS

Unless otherwise specified in each individual interrogatory or request, "you," "your," the "Company," or "Big Rivers," refers to Big Rivers Electric Corporation and its affiliates, directors, officers, employees, consultants, attorneys, 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, each and every example of the requested information.

"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.

"Control" means, without limitation, 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 or subject to your control, identify the person with possession, custody, or control. If any document was in your possession or custody 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.

"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, and originals either (1) in the possession, custody or control of the Company regardless of where located, or (2) produced or generated by, known to or seen by the Company, but now not in their possession, custody or control, regardless of where located or whether 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), agendas, 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. 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") vis-à-vis the Company;
- b. With respect to a document, to state the nature of the document in sufficient detail for identification in a request for production, to state its date, to state 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.

"Person" means, without limitation, every natural person, corporate entity, partnership, association (formal or otherwise), joint venture, unit operation, cooperative, municipality, commission, governmental body, or agency.

"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.

"Workpapers" are defined as original, electronic, machine-readable, unlocked, in native format, and with formulae and links intact.

INSTRUCTIONS

 The Definitions, Instructions, and Claim of Privilege set out in this Request for Information apply to these questions.

- 2. In answering these questions, furnish all information that is available to you, including information in the possession of your agents, employees, and representatives, all others from whom you may freely obtain it, and your attorneys and their investigators.
- 3. Please answer each question based upon your knowledge, information, or belief, and any answer that is based upon information or belief should state that it is given on that basis.
- 4. If you have possession, custody, or control (within Ky. R. Civ. P. 34.01) of the originals of the documents requested, please produce the originals or a complete copy of the originals and all copies that are different in any way from the original, whether by interlineation, receipt stamp, or notation.
- 5. If you do not have possession, custody, or control of the originals of the documents requested, please produce copies of the documents, however made, in your possession, custody, or control. If any document requested is not in your possession or custody or subject to your control, please explain why not, and give the present location and custodian of any copy or summary of the document.
- 6. Please answer the questions and sub-questions in the order in which they are listed and in sufficient detail to provide a complete and accurate answer to the question.
- 7. If any question appears confusing, please request clarification from the undersigned counsel.
- 8. In providing your responses, please start each response on a separate page and type, at the top of the page, the question that is being answered.

- 9. As part of the response to each question, please state, at the bottom of the answer, the name and job position of each person who participated in any way, other than providing clerical assistance, in the preparation of the answer. If the question has sub-parts, please identify the person or persons by sub-part. Please also state the name of the witness in this docket who will sponsor the answer to the question and who can vouch for the truth of the answer. If the question has sub-parts, please identify the witness or witnesses by sub-part.
- 10. Rather than waiting to provide all of the responses at the same time, please provide individual responses as each becomes available.
- 11. Wherever the response to a request for information consists of a statement that the requested information is already available to Sierra Club, please provide a detailed citation to the document(s) and/or workpapers that contain the information. The citation shall include the title(s) of the document(s), relevant page number(s), and to the extent possible paragraph number(s) and/or chart(s)/table(s)/figure number(s).
- 12. 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.
- 13. These questions are continuing in nature. If there is a change in circumstances or facts or if you receive or generate additional information that changes your answer between the time of your original response and the time of the hearings, then you should submit, under oath, a supplemental response to your earlier answer.

- 14. If you consider any question to be unduly burdensome, or if the response would require the production of a voluminous amount of material, please call the undersigned counsel as soon as possible in order to discuss the situation and to try to resolve the problem. Likewise, if you object to any of the questions on the grounds that the question seeks confidential information, or on any other grounds, please call the undersigned counsel as soon as possible.
- 15. If the response to any question is voluminous, please provide separately an index to the materials contained in the response.
- 16. If the information requested is included in previously furnished exhibits, workpapers, or responses to other discovery inquiries or otherwise, in hard copy or electronic format, please furnish specific references thereto, including Bates Stamp page citations and detailed cross-references.
- 17. Data should be provided in native electronic format including active EXCEL workbooks and all linked workbooks, with all formulas, cell references, links, etc., intact, functioning, and complete for all tables, figures, and attachments in the testimony.
- 18. To the extent that a question asks for the production of copyrighted material, it is sufficient to provide a listing of such material, indicating the title, publisher, author, edition, and page references relied on or otherwise relevant to the question.
- 19. Sierra Club reserves the right to serve supplemental, revised, or additional discovery requests as permitted in this proceeding.

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 request for information or request for production, describe the basis for your claim of privilege in sufficient detail so as to permit meaningful evaluation of 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 likewise enable evaluation of the validity of such claims.

REQUESTS FOR INFORMATION

- 1.1 Please provide all responses to Requests for Information issued by Big Rivers or any other party to this proceeding.
- 1.2 Please provide all testimony, exhibits, work papers, and schedules supporting the Company's integrated resource plan in electronic, machine-readable format with formulae intact, including all confidential or highly sensitive testimonies, exhibits, work papers, and schedules supporting the Company's integrated resource plan.
- 1.3 Refer to Table 2.3(c) on page 35 of the IRP.
 - a. Provide any studies, analyses, documents, or forecasts relied upon in determining an expected retirement date of 2045 for D.B. Wilson.
 - b. When was the last time that the Company analyzed the expected retirement date of D.B. Wilson other than this IRP? What were the results of that analysis?
- 1.4 Refer to page 57 of the IRP. Has the Company analyzed proposed retirement of D.B. Wilson and/or replacement generation pursuant to K.R.S. § 278.264?
 - a. If so, please provide the results of all such analysis, including analyses, documents, or forecasts.
 - b. If not, why not?
- 1.5 Refer to pages 93-94 of the IRP. For each of its generation units, has Big Rivers conducted any analysis of the potential costs to comply with EPA's proposed greenhouse

- gas rule and timing for such costs? If so, provide all documents reflecting such analyses for each unit. If not, why not?
- 1.6 Refer to page 96 of the IRP, which states, "With the upgrade of the FGD system by using the recycled Coleman Station FGD/absorber system, Wilson Station can now operate well within its annual emission allowance."
 - a. Please provide the effective date of the upgrade.
 - b. Please provide the total annual SO2 emissions from D.B. Wilson for each year since the date of the upgrade.
 - c. Please identify the expected year in which the FGD system is anticipated to require replacement were D.B. Wilson to continue to operate.
- 1.7 Refer to pages 97-98 of the IRP.
 - a. Does Big Rivers have a forecast for NOx credit costs under the Cross-State Air Pollution Rule or EPA's proposed Good Neighbor Plan, 87 Fed. Reg. 20,036 (Apr. 6, 2022)? If yes, please provide all forecasts through 2030. If not, why not?
 - b. Please describe the impact of "Group 3 allowances for the ozone season" on D.B. Wilson.
- 1.8 For D.B. Wilson, has Big Rivers conducted any analysis of the potential costs to comply with EPA's Regional Haze Rule for the second planning period, 40 C.F.R. § 51.308, and timing for such costs? If so, please provide all documents reflecting such analyses for each unit. If not, why not?
- 1.9 Refer to page 101 of the IRP. Has Big Rivers conducted any analysis of the compliance costs and timing to comply with EPA's Coal Combustion Residuals Rule ("CCR Rule"), 40 C.F.R. Part 257?, with respect to D.B. Wilson? If so, please provide all documentation reflecting such analyses for each unit. If not, why not?
- 1.10 Refer to page 55 of the IRP. Has Big Rivers conducted any analysis of the costs and timing for such costs to comply with EPA's Effluent Limitations Guidelines ("ELG Rule"), 40 C.F.R. Part 423? If so, please provide all documentation reflecting such analyses for each unit. If not, why not?
- 1.11 For D.B. Wilson, has Big Rivers conducted any analysis of the potential costs to comply with EPA's mercury and air toxics standards? If so, please provide all documents reflecting such analyses for each unit. If not, why not?
- 1.12 Provide a copy of the most recent Kentucky Pollutant Discharge Elimination System ("KPDES") permit, the most recent KPDES permit fact sheet, and the most recent KPDES permit renewal application for D.B. Wilson.

- 1.13 Provide a copy of the most recent Clean Air Act Title V operating permit and the most recent Clean Air Act Title V operating permit renewal application for D.B. Wilson.
- 1.14 Has Big Rivers conducted any analysis or assessment of the public health impacts of D.B. Wilson?
 - a. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - b. If not, please explain why Big Rivers has chosen not to conduct such an analysis.
- 1.15 Has Big Rivers conducted any analysis or assessment of the economic impacts of public health impacts generated by D.B. Wilson?
 - a. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - b. If not, please explain why Big Rivers has chosen not to conduct such an analysis.
- 1.16 Please refer to pages 41-42 of the IRP.
 - a. Please describe the relationship between SERC and Big Rivers with respect to reliability.
 - b. Please provide the Critical Infrastructure Protection Audit of Big Rivers.
 - c. Please describe with specificity the "additional upgrades which increased reliability and allowed integration of significant new loads within their respective territories" by Big Rivers' member cooperatives.
- 1.17 Please refer to page 58 of the IRP, "A Focus on Reliability."
 - a. Please confirm that Big Rivers' balancing authority is MISO. If not confirmed, please state Big Rivers' balancing authority.
 - b. Please confirm that Big Rivers' reliability coordinator is MISO. If not confirmed, please state Big Rivers' reliability coordinator.
 - c. For each year from 2014 to 2022, inclusive, please provide a list of the ten days with the highest total "MWh lost," and the ten days with the highest MW of forced outages for D.B. Wilson.
 - i. For each of those days, please provide a list of units with MWh lost, with, for each:
 - i. Total MWh lost per unit
 - ii. The reason(s) for the outage and/or derate, including planned outage, maintenance outage, and forced outage. For forced outage, please provide a further breakdown: forced outage due to extreme weather (please specify the type of extreme weather, if known), forced outage due to mechanical problems, unavailability due to fuel supply disruption, and any other type of forced outage (with the greatest amount of specificity possible).
 - d. For each year from 2014 to 2022, inclusive, please provide the annual figures for D.B. Wilson for:

- i. The percentage of MWh lost due to:
 - i. Planned outages
 - ii. Maintenance outages
 - iii. Forced outages due to:
 - A. Extreme weather (please break down by percentage for the type of extreme weather, if known—i.e., 5% due to extreme cold weather, 5% due to extreme heat)
 - B. Mechanical problems
 - C. Fuel supply disruption not caused by extreme weather (if this is not in the forced outage category, then please provide it in its own category)
 - D. Any other type of forced outage (please break down by percentage with greater specificity, if known—i.e., 5% due to strike, 5% for other reasons)
- ii. In each category for the percentage of MWh lost that year, please provide the percentage of MWh lost from a unit that was, at the time of outage, primarily a coal-fired unit, a gas-fired unit, a hydro unit, a solar unit, or other (with, for the "other" category, the maximum specificity possible).
 - i. For example: X% of MWh lost in 2014 due to maintenance outages were due to maintenance outages of coal-fired units; Y% were due to maintenance outages of gas-fired units; etc.

1.18 Please refer to page 61 of the IRP.

- a. Please provide all available information about the performance of D.B. Wilson specifically during Winter Storm Elliott, including information about forced outages. Include analyses, documents, and after-action reports.
- b. Please provide all available information about the performance of D.B. Wilson specifically during Winter Storm Uri, including information about forced outages. Include analyses, documents, and after-action reports.
- c. Please provide all available information about the performance of the Company's generating units during Winter Storm Elliott, including information about forced outages. Include analyses, documents, and after-action reports.
- d. Please provide all available information about the performance of the Company's generating units during Winter Storm Uri, including information about forced outages. Include analyses, documents, and after-action reports.

1.19 Please refer to pages 23-24 of the IRP.

- a. Has Big Rivers conducted any analysis or assessment of future transmission expansion and/or upgrades by Big Rivers?
 - i. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - ii. If not, please explain why Big Rivers has chosen not to conduct such an analysis.

- b. Has Big Rivers conducted any analysis or assessment of the impact of future transmission expansion and/or upgrades by other entities on Big Rivers and its customers?
 - i. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - ii. If not, please explain why Big Rivers has chosen not to conduct such an analysis.
- c. Has Big Rivers conducted any analysis or assessment of the value and opportunities that regional and interregional transmission provide for the Company and its customers?
 - i. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - ii. If not, please explain why Big Rivers has chosen not to conduct such an analysis.
- d. Has Big Rivers conducted any analysis or assessment of the value and opportunities that imports provide for the Company and its customers?
 - i. If so, please provide all copies of such analysis or assessment and all communications regarding such analysis or assessment.
 - ii. If not, please explain why Big Rivers has chosen not to conduct such an analysis.
- 1.20 Please provide all studies, analyses, documents, or forecasts regarding the effects of the Inflation Reduction Act on Big Rivers' generation portfolio.
 - a. If no such analysis exists, please explain why not.
- 1.21 Please provide all studies, analyses, documents, or forecasts conducted by the Company regarding carbon capture and sequestration, including the feasibility of carbon capture and sequestration.

Dated: December 8, 2023

Of counsel (not licensed in Kentucky)

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Respectfully submitted,

/s/ Joe F. Childers

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Signature	ierra Club submission was served upon all parties
of record in this proceeding on December 8, 20	2023, by first-class U.S. mail, hand delivery, and/or
e-mail, as permitted by the presiding officer.	

/s/ Joe F. Childers
JOE F. CHILDERS