

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

In the Matter of:

ELECTRONIC 2022 INTEGRATED)	
RESOURCE PLAN OF EAST)	CASE NO.
KENTUCKY POWER COOPERATIVE,)	2022-00098
INC.)	

**SIERRA CLUB’S INITIAL REQUESTS FOR INFORMATION
TO EAST KENTUCKY POWER COOPERATIVE**

Pursuant to the Commission’s June 1, 2022, Order, Sierra Club hereby propounds the following initial requests for information to East Kentucky Power Cooperative, Inc. (“EKPC” or “the Company”), in the above-captioned proceeding.

The Company shall answer these data requests in the manner and timeframe set forth in the aforementioned Order, including by no later than July 22, 2022. Please produce the requested documents in electronic format whenever possible, and to the following recipient:

Kristin Henry
Sierra Club
2101 Webster Street, Suite 1300
Oakland, CA 94612
Email: kristin.henry@sierraclub.org

Wherever the response to an interrogatory or request consists of a statement that the requested information is already available to Sierra Club, 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(s)/table(s)/figure number(s).

In the event that any document referred to in response to any request 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.

Sierra Club reserves the right to serve supplemental and/or revised discovery requests as permitted in this proceeding.

DEFINITIONS

Unless otherwise specified in each individual interrogatory or request, “you,” “your,” the “Company,” or “EKPC,” refers to East Kentucky Power Cooperative, Inc., and its affiliates, officers, directors, employees, and 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.

“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 that you have the right to secure a 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.

“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 Company regardless of where located, or (2) produced or generated by, known to or seen by the Company, but now in their possession, custody or control, regardless of where located whether or still in existence. “Documents,” for purposes of the production of the same, 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. 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.

“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, 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.

“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, Excel format (where possible) with formulas intact.

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 Sierra Club 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 Sierra Club or the Commission to evaluate the validity of such claims.

TIME

Unless otherwise provided, the applicable time period for each of these requests for information is June 1, 2017, to the present.

REQUESTS FOR INFORMATION

1. Please provide copies of the Company's objections and responses to all Requests for Information served upon the Company in this proceeding.
2. Please provide an unredacted copy of EKPC's 2022 IRP, including unredacted data.
3. Please provide the supporting data and workpapers for all figures and tables in EKPC's unredacted 2022 IRP in both Excel format with all formulas unlocked and intact and in non-redacted, native format (if not Excel) with all formulas unlocked and intact.
4. Please list the respective retirement years that the Company currently forecasts for all of the power plant units that it owns or operates.
 - a. If the 2022 IRP identifies those retirement years, please identify the page(s) on which it does so.
 - i. If that identification was redacted in the public version of the IRP, please state the basis for that redaction and identify any precedent of which EKPC is aware of for affording confidential protection to forecasted retirement years in IRPs filed with the Commission.
 - b. Conversely, if the 2022 IRP does not identify those forecasted retirement years, please discuss why EKPC omitted them and explain how that omission was consistent with 807 KAR 5:058, Section 8(3)(b)(11), in addition to now listing them as requested.
5. For each one of the Spurlock and Cooper coal-fired units, produce any analysis or assessment conducted since 2017, of the economics of continued operation, i.e., a retirement study or unit disposition analysis, of the unit done by or for EKCP, including, but not limited to, any studies conducted to determine how to comply with the coal combustion residuals ("CCR Rule") or effluent limitation guidelines ("ELG Rule") regulations.
6. For each retirement/retrofit study or unit disposition analysis produced in response to Sierra Club Request for Information 5:
 - a. State which modeling software was used to conduct the analysis.
 - b. State the date that the analysis was performed.

- c. State whether the units were modeled with an economic (market) or self-commitment (must run) status for each year of the analysis.
 - d. State the date of each forecast or projection used in the analysis.
 - e. State the regulation or rationale behind each unit's retirement date(s) studied.
 - f. Provide all underlying workbooks with formulas intact that were used to develop model input assumptions.
 - g. Identify all transmission grid updates or changes that would be needed to allow for the retirement of each unit.
 - h. Produce all analyses or assessments 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.
 - i. Provide each of the following inputs by unit for each modeled scenario:
 - i. Heat rate for each fossil unit (Btu)
 - ii. Projected Ongoing Capital expenditures by unit (\$)
 - iii. Variable Operation and Maintenance by unit (\$/MWh)
 - iv. Fixed Operation and Maintenance by unit(\$/MW)
 - j. Provide the following inputs by scenario:
 - i. A list of all capital expenditures associated with CCR and ELG compliance included in each modeled scenario and provide the cost of each;
 - ii. All transmission upgrade costs assumed, if any (\$);
 - iii. SPP energy price forecasts (with and without CO₂ price);
 - iv. SPP capacity price forecasts (with and without CO₂ price);
 - v. CO₂ price forecasts
 - vi. Coal price (\$/MMBtu)
 - vii. Gas price (\$/MMBtu)
 - k. For each replacement resource available to the model, provide each of the following inputs for each resource at the highest level of granularity used in conducting the unit disposition analysis:
 - i. Replacement resource options
 - ii. Replacement resource size (MW)
 - iii. Year replacement resource is available (year)
 - iv. Cost of replacement resource option (\$/MW)
 - v. Annual capacity factor
 - l. Provide all model outputs by unit, including:
 - i. Annual generation (MWh)
 - ii. Fuel Costs (\$)
 - iii. VOM Costs (\$)
 - iv. FOM Costs (\$)
 - v. Capital expenditures for ELG and CCR environmental compliance (\$)
 - vi. Other capital expenditures (\$)
 - vii. Energy and ancillary market revenues (\$)
 - m. Provide all post-processing workbooks with formulas intact that were used to analyze study results outside the model.
7. Please discuss the reconcilability of the EKPC's statement, at IRP p. 177, that "EKPC is in compliance with the existing Environmental Protection Agency ("EPA") rules[,]” including

the Coal Combustion Residuals (“CCR”) Rule, with EPA’s statements, in its January 2022 conditional approval of an alternative closure deadline for Spurlock’s coal combustion residuals (“CCR”) facilities and non-CCR wastestreams, that:

- “EPA’s review was made more difficult by the fact that the Annual GWMCA Reports for both the Spurlock Ash Pond and the Spurlock Station Landfill failed to include monitoring data obtained under 40 C.F.R. §§ 257.90 through 257.98, as required by 40 C.F.R. § 257.90(e)(3). Groundwater elevation measurements were missing, and no laboratory analytical reports or information about statistical analyses were included.¹¹ As a result, these reports fail to include all the monitoring data obtained under 40 C.F.R. §§ 257.90 through 257.98 as required by 40 C.F.R. § 257.90(e)(3).” (p.49)
- “EKPC failed to demonstrate the groundwater monitoring system is designed in compliance with criteria in 40 C.F.R. § 257.91(b) and that it accurately represents the quality of groundwater and monitors all contaminant pathways in accordance with 40 C.F.R. § 257.91(a)(2). EKPC also failed to conduct assessment monitoring in accordance with 40 C.F.R. § 257.95(b) and (d)(1) by: 1) not including all constituents that were detected in May 2018 in the July 2018 sampling event; 2) failing to conduct semi-annual sampling in January 2019; and 3) failing to conduct annual sampling in May 2019. Additionally, EKPC failed to report data using the lowest quantitation limits that can be reliably achieved by the laboratory, as required by 40 C.F.R. § 257.93(g)(5). Finally, EPA has concerns about the independence of samples collected from the same well within a short period of time for the baseline monitoring required by 40 C.F.R. § 257.94(b).” (pp. 50-51)
- “EKPC failed to demonstrate compliance with 40 C.F.R. § 257.91(b) by failing to incorporate the effects of extraction wells into groundwater flow maps to accurately characterize groundwater flow.” (p.51)
- “EKPC failed to conduct assessment monitoring in accordance with 40 C.F.R. § 257.95(b) and (d)(1).” (p.52)

8. Please provide the most current update on regulatory status, any construction, agency enforcement, and any other pertinent developments, at the respective coal ash facilities at the Spurlock and Cooper coal-fired power plants. Without limitation of the foregoing, please:
 - a. Identify any developments, since April 1, 2022, related to EPA’s January 2022 conditional approval of Spurlock’s alternative CCR closure deadline, including but not limited to correspondence from/with EPA and/or PJM concerning EPA’s conditional approval.
 - b. Discuss whether EKPC is on track to satisfy the deadlines set out in EPA’s conditional approval; and if not, explain why not and discuss the Company’s plan for compliance.
 - c. Explain whether Spurlock is at risk of needing to cease burning coal—and, if so, how imminently and for how long—as a result of the requirements and deadlines set out in EPA’s conditional approval.
9. State the cost of the projects the Company has undertaken or intends to undertake at the Spurlock and Cooper coal-fired units to allow compliance with the CCR Rule and/or the ELG Rule, respectively.

- a. State the year these costs have been or will be incurred.
 - b. State whether there are any units that as of today use wet sluicing of coal ash.
 - c. For each project (i.e., for the CCR Rule or ELG Rule retrofits), please identify and describe each capital expenditure required to complete the project, and explain whether the expenditure is required to comply with the CCR Rule or the ELG Rule.
 - d. Identify which ELG or CCR expenditures could be avoided by making a commitment to cease burning coal under the CCR Rule’s alternative closure provisions, 40 C.F.R. § 257.103, or the ELG Rule, 40 C.F.R. § 423.19(f) (“Avoidable CCR/ELG Costs”).
10. For each one of the Spurlock and Cooper coal-fired units, please identify the technology, equipment, and/or practices currently installed, operated, or performed by the Company to reduce the unit’s emissions of nitrogen oxides (NOx). In doing so, please confirm whether the plant has selective catalytic reduction (SCR) or selective noncatalytic reduction (SNCR) technology currently installed.
- a. For any and all units that do not have SCR/SNCR, please explain whether, to date, the Company has assessed, and incorporated into any technical resource modeling or planning, the upfront capital cost, and any increased operating and maintenance (O&M) cost, that would be posed to EKPC if the unit(s) were required to install and operate SCR/SNCR pursuant to the obligations and timelines set out in EPA’s April 2022 proposed rule, Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone National Ambient Air Quality Standard.¹
 - i. If the Company has performed such modeling/planning, please identify, summarize, and provide all documents (including workpapers) comprising that already-performed assessment.
 - b. For any and all units that do not have SCR/SNCR, please estimate the total upfront capital cost of installing SCR/SNCR no later than the year 2026; and, to the extent applicable and possible, please also itemize and explain the components of that total cost.
 - c. For any and all units that do not have SCR/SNCR, please estimate the annual total incremental additional O&M cost of continuously operating SCR/SNCR (relative to O&M without operating SCR/SNCR); and, to the extent applicable and possible, please also itemize and explain the estimated components of that total cost.
11. For each one of the Spurlock and Cooper coal-fired units, please identify and produce the most recent depreciation study.
12. For each one of the Spurlock and Cooper coal-fired units, please provide the following historical annual data from 2012 and through 2021, and by month as available for 2022:
- a. Installed Capacity
 - b. Unforced Capacity
 - c. Capacity Factor
 - d. Equivalent Availability Factor (EAF)

¹ See IRP at 204-205; see also <https://www.federalregister.gov/documents/2022/04/06/2022-04551/federal-implementation-plan-addressing-regional-ozone-transport-for-the-2015-ozone-national-ambient>.

- e. Heat Rate
 - f. Forced or random outage rate
 - g. Effective forced outage rate (EFORd)
 - h. Fixed O&M costs
 - i. Non-Fuel Variable O&M costs
 - j. Fuel Costs (by fuel type)
13. For each one of the Spurlock and Cooper coal-fired units, for each of the years 2022 through 2031, please identify the Company's most recent projection of:
- a. Installed Capacity
 - b. Unforced Capacity
 - c. Capacity factor
 - d. Availability
 - e. Heat rate
 - f. Forced or random outage rate
 - g. Effective forced outage rate (EFORd)
 - h. Fixed O&M cost
 - i. Variable O&M cost
 - j. Fuel cost (by fuel type)
14. For each one of the Spurlock and Cooper coal-fired units, please provide the following:
- a. Historical capital expenditures since 2010.
 - b. Projected capital expenditures through 2030.
 - c. Provide a specific accounting of all projects and capital expenditures already scheduled or planned at the Spurlock and Cooper coal-fired units over the next ten years.
 - d. Identify any projected capital expenditures necessary to comply with environmental requirements.
 - e. For each capital expenditure involving more than \$1 million, please provide all analyses of the present value of those investments versus retirement or replacement. If EKPC did not perform any such analysis, why not?
15. Please discuss whether EKPC has, in the last three years, conducted technical modeling or otherwise robustly assessed the cost-effectiveness of replacing some or all of the power currently provided by Spurlock and/or Cooper with a clean portfolio of renewable generation and EE/DSM that would continue to satisfy EKPC's energy and capacity needs.
- a. If so, please identify, summarize, and provide all documents (including workpapers) comprising that already-performed assessment.
 - b. If not, please explain why not.
16. Provide plant in service amounts from 2015 through the present for each one of the Spurlock and Cooper coal-fired units, account for each month. For each month, include plant balance as of the first day of the month, addition, transfers, retirements, and plant balance at the end of the month.
17. For each one of the Spurlock and Cooper coal-fired units, has EKPC conducted any analyses of compliance with the Regional Haze Rule's "reasonable progress" requirements, including,

but not limited to, any four-factor analysis under 40 C.F.R. § 51.308(f) for the control of sulfur dioxide, nitrogen oxides, or particulate matter, which were due in July 2021? If yes, please provide all such analyses, including all supporting calculations, data, documents, technical or economic reports or presentations, modeling input and output files, and workpapers associated with each such analysis. If EKPC has not conducted any such analyses, explain why.

Dated: June 30, 2022

Respectfully submitted,



Of counsel
(not licensed in Kentucky):

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Counsel for Sierra Club

CERTIFICATE OF SERVICE

This is to certify that the foregoing copy of SIERRA CLUB'S INITIAL REQUESTS FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE in this action is being electronically transmitted to the Commission on June 30, 2022; and that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding.



JOE F. CHILDERS