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PUBLIC SERVICE
COMMISSION

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES)
FOR CERTIFICATES OF PUBLIC CONVENIENCE) CASE NO. 2011- | 6 |
00161)
AND NECESSITY AND APPROVAL OF ITS 2011)
COMPLIANCE PLAN FOR RECOVERY)
BY ENVIRONMENTAL SURCHARGE)

**PROPOSED INTERVENORS RICK CLEWETT, RAYMOND BERRY, SIERRA
CLUB AND THE NATURAL RESOURCES DEFENSE COUNCIL'S
FIRST SET OF INTERROGATORIES AND REQUESTS FOR PRODCUTION
OF DOCUMENTS TO KENTUCKY UTILITIES COMPANY**

Proposed Intervenor Rick Clewett, Raymond Berry, Sierra Club, and Natural Resources Defense Council pursuant to the Kentucky Public Service Commission's ("Commission") June 28, 2011 Order ("June 28 Order"), propound the following interrogatories and requests for production of documents on the Kentucky Utilities Company ("KU") regarding KU's application for certificates of public convenience and necessity and approval of its 2011 compliance plan that is the subject of the above-captioned proceeding.

These interrogatories and requests shall be answered in the manner set forth in the June 28 Order and by the July 25, 2011 deadline set forth in Appendix A of the June 28 Order. Please produce the requested documents in electronic format at the offices of the Natural Resources Defense Council, 2 N. Riverside Plaza, Suite 2250, Chicago, Illinois 60606 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 Proposed Intervenor, provide a detailed citation to the document where the information can be found. 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 interrogatory or 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.

The Proposed 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,” or “KU” refers to Kentucky Utilities Company, 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.

“CATR” means the Clean Air Transport Rule, which is now referred to as the Cross-State Air Pollution Rule.

“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.

“CO₂” means carbon dioxide.

“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 not now in their possession, custody or control, regardless of where located whether or not 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.

In the interest of efficiency during discovery and the hearing process, bates stamp all documents produced in response to these interrogatories and requests for production.

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

“HCl” means hydrogen chloride

“Identify” means:

- (a) With respect to a person, to state the person’s name, address and business relationship (e.g., “employee”) to KU;
- (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.

“KU 2011 Plan” means KU’s Application for Certificates of Public Convenience and Necessity and Approval of Its 2011 Compliance Plan For Recovery By Environmental Surcharge, which was filed with the Commission on June 1, 2011, and any supporting testimony, amendments, supplements, or revisions to that filing.

“kWh” means kilowatt-hours.

“MISO” means the Midwest Independent Transmission System Operator.

“MW” means megawatt.

“MWh” means megawatt-hours.

“NAAQS” means National Ambient Air Quality Standard

“NOx” means nitrogen oxides

“PM” means particulate matter

“PM2.5” means particulate matter that is less than 2.5 microns, which is also known as “fine particulate matter”

“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

“SAM” means sulfuric acid mist

“SO2” means sulfur dioxide

PRIVILEGE OR CONFIDENTIALITY

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 Proposed Intervenor 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 Proposed Intervenor is 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 interrogatories and requests for production is January 1, 2009 to present.

INTERROGATORIES

1. Refer to page 9, lines 5-9 of the testimony of Lonnie E. Bellar. Identify “any necessary adjustments to KU’s 2011 Plan that are responsive to CATR,” which was finalized as the Cross-State Air Pollution Rule on July 6, 2011.

2. Refer to page 12, lines 14-18 of the testimony of John N. Voyles Jr. Identify which “additional SCR installations” were deferred by KU’s 2011 Plan and for long they will be deferred.

3. Refer to Table 1 on page 3 of Exhibit CRS-1. Identify in what year the dollar figures identified therein are.

4. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, state whether the PVRR of installing controls identified therein includes each of the following category of costs. For each category, if the answer is yes, identify the total PVRR in 2011 dollars that was included for that cost:
 - a. Capital projects other than environmental controls
 - b. Fixed operation and maintenance costs
 - c. Variable operation and maintenance costs
 - d. Fuel costs
 - e. Emission allowance costs

5. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, identify any cost not listed in Interrogatory 4 that is included in the PVRR of installing controls identified in Table 2. For each such cost, identify the total PVRR in 2011 dollars that was included for that cost.

6. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, state whether, in determining the PVRR of retiring and replacing capacity indentified

in Table 2, each of the following options was included as replacing some or all of the capacity for that unit. For each option that was included, identify the amount of capacity that such option was assumed to replace, and the per unit of energy cost that was assumed for such option.

- a. Energy efficiency
- b. Demand side management
- c. Combined heat and power
- d. Wind turbines
- e. Solar
- f. Hydroelectric
- g. Construction of a new natural gas combined cycle facility
- h. Purchase of power from an existing natural gas combined cycle facility
- i. Purchase of an existing natural gas combined cycle facility
- j. Power purchase agreements

7. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, identify any option not listed in Interrogatory 6 that, in determining the PVRR of retiring and replacing capacity identified in Table 2, was included as replacing some or all of the capacity for that unit. For each such option, identify the amount of capacity that such option was assumed to replace, and the per unit of energy cost that was assumed for such option.

8. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, state whether the PVRR of retiring and replacing capacity identified therein includes each of the following categories of costs. For each category, if the answer is yes, identify the total PVRR in 2011 dollars that was included for that cost.

- a. Transmission grid upgrades or additions
- b. Decommissioning costs
- c. Undepreciated book value
- d. Replacement capacity

9. Refer to Table 2 on page 4 of Exhibit CRS-1. For each unit listed in Table 2, identify any cost not listed in Interrogatory 8 that was included in determining the PVRR of retiring and replacing capacity identified therein. For each cost, identify the total PVRR in 2011 dollars that was included for that cost.

10. Refer to page 1 of Exhibit JNV-1. For each of the electric generating units at KU's Brown and Ghent generating stations, identify the following emissions rates and amounts from such unit after the environmental controls that are proposed as part of Project 34 and 35 are completed.
 - a. SO₂ lbs/mmBtu
 - b. SO₂ tpy
 - c. NO_x lbs/mmBtu
 - d. NO_x tpy
 - e. PM lbs/mmBtu
 - f. PM tpy
 - g. Mercury lbs/TBtu
 - h. Mercury pounds per year
 - i. HCl – lbs/mmBtu
 - j. HCl – tpy
 - k. CO₂ – tpy
 - l. SAM – lbs/mmBtu
 - m. SAM - tpy

11. Identify any planned, anticipated, or assumed retirement dates for each of KU's electric generating units.

12. Identify any actions that the KU 2011 Plan assumes KU will need to take to comply with any existing, pending, or anticipated regulation of CO₂ emissions from KU's electric generating units.

13. Identify any actions that the KU 2011 Plan assumes KU will need to take as a result of the 1-hour SO₂ NAAQS.

14. Identify any actions that the KU 2011 Plan assumes KU will need to take as a result of US EPA's reconsideration of the 2008 ozone NAAQS.

15. Identify any actions that the KU 2011 Plan assumes KU will need to take as a result of US EPA's reconsideration of the 2006 PM_{2.5} NAAQS.

16. Identify any actions that the KU 2011 Plan assumes KU will need to take as a result of existing, proposed, or anticipated Clean Water Act regulations

17. State whether any of the flue gas desulfurization systems at any of the electric generating units at KU's Brown or Ghent generating stations were constructed using duplex stainless steel alloy 2205 or other duplex stainless steels.

18. State whether any of the flue gas desulfurization systems at any of the electric generating units at KU's Brown or Ghent generating stations have experienced problems with corrosion.

19. Identify the energy generated (in kWh or MWh) at each of KU's electric generating units in each calendar year during the period 2000-2010.

20. Identify the amount of energy (in kWh or MWh) that KU sold in off-system sales in each calendar year during the period 2000 – 2010.

21. Identify any KU's electric generating units that have been designated as a must-run unit by MISO, PJM, or any other Regional Transmission Organization. For each such unit, identify when it was designated a must-run unit and the period of time for which the unit was designated as must-run.

22. Identify KU's actual electric energy sales in MWh and actual peak loads in MW for each of the years 2000 through 2010.

23. Identify any CO₂ prices assumed in KU's 2011 Plan for each year of 2011 through 2040, and explain how any such CO₂ prices were factored into the KU 2011 Plan analysis.

24. Identify the price of SO₂ and NO_x allowances that you assumed in KU's 2011 Plan for each year of 2011 through 2040.

25. Identify all of the supply-side and the demand-side resources that you considered as part of the KU 2011 Plan process.

26. Identify the annual natural gas prices that you assumed as part of the KU 2011 Plan process for each year of 2011 through 2040.

27. Identify the annual coal prices that you assumed as part of the KU 2011 Plan process for each year of 2011 through 2040.

28. Identify the assumptions you used in each base case and sensitivity scenario that you modeled in the KU 2011 Plan process.

29. For each of the three generating units at KU's Brown plant and the four generating units at KU's Ghent plant, identify the anticipated annual capital, maintenance, operating, and fuel costs KU expects to incur for each year of 2011 through 2040.

30. Identify any transmission grid upgrades or additions KU anticipates needing to make in order to avoid transmission grid reliability, stability, or voltage support problems as the result of the retirement of any of KU's existing electric generating units.

REQUESTS FOR PRODUCTION OF DOCUMENTS

1. Produce all discovery responses from KU to any other party in this proceeding.

2. Produce a non-redacted version of the KU 2011 Plan and all supporting documentation.

3. Refer to page 5, lines 14-16 of the testimony of Charles R. Schram. Produce in machine readable or txt format the input and output files for all Strategist modeling that you carried out regarding the KU 2011 Plan.

4. Refer to page 5, lines 14-16 of the testimony of Charles R. Schram. Produce in machine readable or txt format the input and output files for all PROSYM modeling that you carried out regarding the KU 2011 Plan.

5. Refer to Table 1 on page 3 of Exhibit CRS-1. Produce any documents that you reviewed or relied on in determining the capital costs for environmental controls *identified therein*.
6. Refer to Table 2 on page 4 of Exhibit CRS-1. Produce any documents that you reviewed or relied on in determining the PVRR of retiring and replacing capacity *for each of the units identified in Table 2*.
7. Produce the most recent condition or performance assessments for each of KU's electric generating units.
8. Produce a copy of any forecast or projection of future CO₂ costs, taxes, or emissions allowances prices that has been prepared by or for KU.
9. Produce a copy of any plan for reducing CO₂ emissions that has been prepared by or for KU.
10. Produce a copy of any assessment of future natural gas prices and supplies that has been prepared by or for KU.
11. Produce a copy of any assessments of future coal prices and supplies that has been prepared by or for KU.
12. Produce a copy of any assessment or discussion of corrosion of the flue gas desulfurization controls on any of the units at KU's Ghent and Brown generating stations.

13. Produce a copy of any retirement, continued unit operation, or life extension studies or analyses prepared by or for KU for any of KU's coal-fired electric generating units.
14. Produce a copy of any analysis or assessment of the economics of continued operation of any of KU's coal-fired electric generating units.
15. Produce a copy of any assessment or analysis of the potential impact that the U.S. EPA's draft rules on coal combustion byproducts would have on the cost of operating any or all of KU's coal-fired electric generating units.
16. Produce a copy of any assessment or analysis of the need to install, and/or of the economics of installing, additional pollution controls at any KU's coal-fired electric generating units in response to any existing, pending, or anticipated federal environmental regulation.
17. Produce a copy of any assessment prepared or reviewed by or for KU that examines the impact that retirement of any of KU's electric generating units would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability
18. Produce a copy of any assessment prepared or reviewed by or for KU that examines the impact that retirement of any of KU's electric generating units may have on the community in which such unit is in, or on the workers currently employed in such unit.

19. Produce a copy of any assessment prepared or reviewed by or for KU that examines steps that could be taken to mitigate or reduce the impact that retirement of any of KU's electric generating units may have on the community in which such unit is in, or on the workers currently employed in such unit.

20. Produce a copy of any assessment of the potential for or cost of renewable resources within KU's service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

21. Produce a copy of any assessment of the availability or cost of unused natural gas combined cycle capacity within KU's service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

22. Produce a copy of any assessment of the feasibility or cost of constructing additional natural gas combined cycle capacity within KU's service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

23. Produce a copy of any assessment of the potential for or cost of combined heat and power within KU's service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

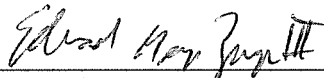
24. Produce a copy of any assessment or analysis of the economics of constructing company-owned solar resources that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

25. Produce a copy of any assessment or analysis of the economics of constructing company-owned wind power resources that have been prepared by or for KU or that you reviewed or relied on in developing the KU 2011 Plan.

26. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the modeling carried out in developing the KU 2011 Plan.

27. Produce in machine readable or txt format the input and output files for each sensitivity analysis that you considered as part of developing the KU 2011 Plan.

Respectfully submitted,



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Dated: July 12, 2011

CERTIFICATE OF SERVICE

I certify that I mailed a copy of this FIRST SET OF INTERROGATORIES AND REQUESTS FOR PRODCUTION OF DOCUMENTS by first class mail on July 12, 2011 to the following:

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