

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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JUL 1 5 2011 PUBLIC SERVICE COMMISSION

In the Matter of:

THE 2011 JOINT INTEGRATED RESOURCE PLAN OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY

CASE NO. 2011-00140

PROPOSED INTERVENORS RICK CLEWETT, DREW FOLEY, JANET OVERMAN, GREGG WAGNER, THE NATURAL RESOURCES DEFENSE COUNCIL, AND THE SIERRA CLUB'S FIRST SET OF INTERROGATORIES AND REQUESTS FOR PRODCUTION OF DOCUMENTS TO LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY

Proposed Intervenors Rick Clewett, Drew Foley, Janet Overman, Gregg Wagner, Natural Resources Defense Council, and Sierra Club, pursuant to the Kentucky Public Service Commission's ("Commission") May 16, 2011 Order ("May 16 Order"), propound the following interrogatories and requests for production of documents on Louisville Gas and Electric Company and Kentucky Utilities Company (collectively, "Companies") regarding the Companies' 2011 Joint Integrated Resource Plan that is the subject of the above-captioned proceeding.

These interrogatories and requests shall be answered in the manner set forth in the May 16 Order and by the June 13, 2011 deadline set forth in Appendix A of the May 16 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 Intervenors, 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 "Companies" refers to Louisville Gas & Electric and Kentucky Utility Company, and their 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.

"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

"Identify" means:

(a) With respect to a person, to state the person's name, address and business relationship (e.g., "employee") to the Companies;

(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.

"kWh" means kilowatt-hours.

"MISO" means the Midwest Independent Transmission System Operator.

"MW" means megawatt.

"MWh" means megawatt-hours.

"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

"Resource Plan" means the Companies' April 21, 2011 filing with the Commission entitled The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utility Company, and any amendments, supplements, or revisions to that filing.

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

INTERROGATORIES

- 1. Refer to page 5-11 of the Resource Plan. Identify what efficiencies of the Energy Independence and Security Act "have been embedded into the models to construct the small commercial and residential forecasts," and explain how such efficiencies have been embedded.
- 2. Refer to pages 5-11 to 5-12 of the Resource Plan. Identify what provisions of the American Recovery and Reinvestment Act are incorporated into the Resource Plan, and explain how they were incorporated.
- 3. Refer to page 5-12 of the Resource Plan. Identify which "previous government mandates" were incorporated into the Resource Plan, and explain how such mandates were incorporated.
- 4. Refer to page 5-12 of the Resource Plan. Explain how "general increased awareness of energy efficiency ideas" was "incorporated" into the Resource Plan.

- 5. Refer to page 5-49 of the Resource Plan. Identify what the "typical design life of a coalfired unit" is.
- 6. Refer to page 5-50 of the Resource Plan. Identify what "additional investments" would be needed to "maintain continued operation" at the Companies' older electric generating units.
- 7. Refer to page 8-4 of the Resource Plan. For each of the Companies' coal-fired electric generating units, identify in which years over the life of the Resource Plan the Companies intend to carry out "three-to-four week boiler outages," and list each project the Companies plan to carry out during each outage, and the cost of each such project.
- 8. Refer to page 8-4 of the Resource Plan. For each of the Companies' coal-fired electric generating units, identify in which years over the life of the Resource Plan the Companies intend to carry out the "target seven-to-eight year cycle for performing major maintenance." List each project the Companies plan to carry out during each such major maintenance, and the cost of each such project.
- 9. Refer to page 8-6 of the Resource Plan. For each of the Companies' coal-fired electric generating units, identify in which years during the life of the Resource Plan "boiler outages to replace boiler tube sections" have been scheduled.
- 10. Refer to page 8-7 of the Resource Plan. Identify which of the Companies' coal-fired electric generating units have replaced air heater baskets and in what year they did so.

- 11. Refer to page 8-18 of the Resource Plan. Identify any planned, anticipated, or assumed retirement dates for each of the Companies' electric generating units.
- 12. Refer to page 8-87 of the Resource Plan. Identify the 80 DSM/EE programs that were assessed for inclusion in the 2008 Resource Plan, the 17 program enhancements and proposals that the Companies presented to their Energy Efficiency Advisory Group in September 2009, the 10 enhancements and programs that the Advisory Group found to be "useful, relevant, and a prudent use of consumer dollars," and the eight enhancements and new programs to be filed with the Commission in 2011.
- 13. Refer to page 8-92 of the Resource Plan. Explain the basis for the statement that "capital costs for both the coal and gas units have decreased by 20% and 10% respectively" since the 2008 Resource Plan, and identify any sources that you relied on in making that statement.
- 14. Identify the energy generated (in KWh or MWh) at each of the Companies' electric generating units in each calendar year during the period 2000-2010.
- 15. Identify any of the Companies' 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.

- 16. Identify the Companies' actual electric energy sales in MWh and actual peak loads in MW for each of the years 2000 through 2010.
- 17. Identify any CO₂ prices assumed in the Resource Plan, and explain how any such CO₂ prices were factored into the Resource Plan analysis.
- 18. Identify all of the supply-side and the demand-side resources that you considered as part of this planning process.
- 19. Identify the annual natural gas prices, coal prices, and power plant construction costs that you assumed as part of this planning process.
- 20. Describe how the potential resource portfolios were developed as part of this planning process.
- 21. Identify all of the resource portfolios that you modeled as part of this planning process.
- 22. Identify the assumptions you used in each base case and sensitivity scenario that you modeled in this planning process.
- 23. Identify the net present value results of each modeling analysis that you performed as part of this planning process.

- 24. Identify the discount rate you used in the modeling analyses that you performed as part of this planning process.
- 25. Identify the kW and kWh impacts to date from the Companies' energy efficiency and demand side management programs.

- 26. For each of the Companies' coal-fired electric generating units, identify the anticipated annual capital, maintenance, and operating costs the Companies expect to incur during the time period covered by the Resource Plan.
- 27. Identify any transmission grid upgrades or additions the Companies anticipate needing to make in order to avoid transmission grid reliability, stability, or voltage support problems as the result of the retirement of any of the Companies' existing electric generating units.
- 28. Identify any steps the Companies are planning to take or considering to address the impact that retirement of any of the Companies' existing electric generating units could have on the communities in which those units are located and/or the employees who work in those units.
- 29. Refer to page 1 of the Companies' Analysis of Supply Side Technology Alternatives. Explain the basis for assuming that NOx and SO2 emission allowance prices will be zero starting in 2014. Identify any sources supporting such assumption.

REQUESTS FOR PRODUCTION OF DOCUMENTS

- 1. Produce all discovery responses from the Companies to any other party in this proceeding.
- 2. Produce a non-redacted version of the Resource Plan filing.
- 3. Refer to page 5-50 of the Resource Plan. Produce the most recent "high level condition and performance assessments" for the Companies' electric generating units.
- 4. Refer to page 8-87 of the Resource Plan. Produce any documents that the Companies presented to the Energy Efficiency Advisory Group regarding DSM/EE program enhancements and proposed new programs.
- 5. Refer to page 8-87 of the Resource Plan. Produce any documents that the Companies received from the Energy Efficiency Advisory Group regarding DSM/EE program enhancements and proposed new programs.
- 6. Refer to page 8-87 of the Resource Plan. Produce any analysis or evaluation of the Companies' existing and proposed DSM/EE programs pursuant to the cost-benefit tests set out in the California Standard Practice Manual.
- 7. Refer to page 8-88 of the Resource Plan and produce any report regarding the ICF International review referenced on that page.

- 8. Refer to page 8-89 of the Resource Plan. Produce the EPRI Technical Assessment Guide referenced therein.
- 9. Refer to page 8-89 of the Resource Plan. Produce the Cummins and Barnard Generation Options Technology Study referenced therein.
- 10. Produce any national economic forecast or service area forecast that the Companies relied on or reviewed in developing the Resource Plan.
- 11. Produce a copy of any forecast or projection of future CO2 costs, taxes, or emissions allowances prices that have been prepared by or for the Companies.
- 12. Produce a copy of any plan for reducing CO₂ emissions that has been prepared by or for the Companies.
- 13. Produce a copy of any assessment of future natural gas prices and supplies that has been prepared by or for the Companies.
- 14. Produce a copy of any assessments of future coal prices and supplies that has been prepared by or for the Companies since January 1, 2009.

- 15. Produce a copy of any retirement, continued unit operation, or life extension studies or analyses prepared by or for the Companies for any of the Companies' coal-fired electric generating units.
- 16. Produce a copy of any analysis or assessment of the economics of continued operation of any of the Companies' coal-fired electric generating units.
- 17. 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 the Companies' coal-fired electric generating units.
- 18. Refer to pages 8-120 to 8-136 of the Resource Plan. 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 of the Companies' coal-fired electric generating units in response to any of the environmental regulations identified therein, including federal regulations currently in effect or that are under consideration by the U.S. EPA.
- 19. Refer to page 5-11 of the Resource Plan. Produce any workpaper or other document for the adjustment made to your forecast of energy requirements to reflect the impact of the new efficiency standards for lighting included in the Energy Independence and Security Act.
- 20. Produce any workpaper or other document regarding any adjustment not addressed in RFP No. 19 made to your forecast of energy requirements to reflect the impact of the Energy Independence and Security Act or any other updated or new appliance and device efficiency standard since January 1, 2009.

- 21. Refer to page 5-12 of the Resource Plan. Produce any workpaper or other document regarding any adjustment made to your forecast of energy requirements to reflect the impact of the American Recovery and Reinvestment Act of 2009.
- 22. Produce any workpaper or source document for projecting the number of customers in the Companies' service area.
- 23. Produce a copy of any assessment prepared or reviewed by or for the Companies that examines the impact that retirement of any of the Companies' electric generating units would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability
- 24. Produce a copy of any assessment prepared or reviewed by or for the Companies that examines the impact that retirement of any of the Companies' electric generating units may have on the community in which such unit is in, or on the workers currently employed in such unit.
- 25. Produce a copy of any assessment prepared or reviewed by or for the Companies that examines steps that could be taken to mitigate or reduce the impact that retirement of any of the Companies' electric generating units may have on the community in which such unit is in, or on the workers currently employed in such unit.
- 26. Produce a copy of any assessment or analysis prepared by or for the Companies that examined the impact that new energy efficiency programs will have on the company's electric energy sales and peak loads.

- 27. Produce any assessment or analysis prepared by or for the Companies that examined risk or uncertainty associated with deviations from its load forecast.
- 28. Produce a copy of any assessment of the potential for energy efficiency in your service territory that has been reviewed or prepared by or for the Companies since January 1, 2007.
- 29. Produce a copy of any assessment of the potential for or cost of renewable resources within the Companies' service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky performed by or for the Companies.
- 30. Produce a copy of any assessment of the availability or cost of unused natural gas combined cycle capacity within the Companies' service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky performed by or for the Companies.
- 31. Produce a copy of any assessment of the feasibility or cost of constructing additional natural gas combined cycle capacity within the Companies' service territory, in the State of Kentucky, or in one of the states contiguous to Kentucky performed by or for the Companies as part of this planning process.
- 32. Produce a copy of any assessment of the potential for or cost of combined heat and power within the Companies' service territory, in the State of Kentucky, or in one of the states

contiguous to Kentucky performed by or for the Companies as part of the planning process.

- 33. Produce a copy of any assessment or analysis of the economics of constructing companyowned solar resources that have been prepared by or for the Companies.
- 34. Produce a copy of any assessment or analysis of the economics of constructing companyowned wind power resources that have been prepared by or for the Companies.
- 35. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of supply-side resources in the Resource Plan.
- 36. Produce any workpaper, source document, and, in machine readable or txt format, input and output files, used in or developed as part of the screening of demand-side resources in the Resource Plan.
- 37. Produce in machine readable or txt format the input and output files for each sensitivity analysis that you considered as part of this resource planning process.

Respectfully submitted,

Edward George Zuger III, Esq.

Edward George Zuger III, Esq. Zuger Law Office PLLC

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Of counsel:

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Dated: May 26, 2011

CERTIFICATE OF SERVICE

I certify that I served a copy of this First Set of Interrogatories and Requests for Production of Documents via first class mail on May 26, 2011, to the following:

Hon. Allyson K. Sturgeon Rick E. Lovekamp, Manager LG&E and KU Energy LLC 220 West Main Street Louisville, Kentucky 40202 Counsel for LG&E and KU

and, on July 14, 2011, filed an original and ten copies with the Public Service Commission, and mailed copies of the same via first class mail to the following:

Hon. Dennis G. Howard I1 Hon. Lawrence W. Cook Attorney General's Office of Rate Intervention 1024 Capital Center Drive, Suite 200 Frankfort, KY 40601-8204 Counsel for Intervenor Attorney General

Hon. Michael L. Kurtz Hon. Kurt J. Roelvn Boehm, Kurtz & Lowry 36 East Seventh Street, Suite 1510 Cincinnati, Ohio 45202 Counsel for Intervenor KIUC

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