

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)
UTILITIES COMPANY FOR AN ADJUSTMENT)
OF ITS ELECTRIC RATES, A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY TO)
DEPLOY ADVANCED METERING) Case No. 2020-00349
INFRASTRUCTURE, APPROVAL OF CERTAIN)
REGULATORY AND ACCOUNTING)
TREATMENTS AND ESTABLISHMENT OF)
A ONE YEAR SUR-CREDIT)

AND

ELECTRONIC APPLICATION OF LOUISVILLE)
GAS AND ELECTRIC COMPANY FOR AN)
ADJUSTMENT OF ITS ELECTRIC AND GAS)
RATES, A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY TO DEPLOY) Case No. 2020-00350
ADVANCED METERING INFRASTRUCTURE,)
APPROVAL OF CERTAIN REGULATORY AND)
ACCOUNTING TREATMENTS AND)
ESTABLISHMENT OF A ONE YEAR SUR-CREDIT)

**SECOND SUPPLEMENTAL DATA REQUESTS OF JOINT INTERVENORS
MOUNTAIN ASSOCIATION, KENTUCKIANS FOR THE COMMONWEALTH,
KENTUCKY SOLAR ENERGY SOCIETY AND METROPOLITAN HOUSING
COALITION TO LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY
UTILITIES COMPANY**

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Mountain Association and
Metropolitan Housing Coalition

Dated: July 22, 2021

DEFINITIONS

1. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of any memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, or notices, in whatever form, stored or contained in or on whatever medium, including digital media.
2. "Study" means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion.
3. "Person" means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
4. A request to identify a natural person means to state his or her full name and business address, and last known position and business affiliation at the time in question.
5. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), identifying number, and its present location and custodian. If any such document was but is no longer in the Company's possession or subject to its control, state what disposition was made of it and why it was so disposed.
6. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
7. "And" and "or" should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
8. "Each" and "any" should be considered to be both singular and plural, unless specifically stated otherwise.
9. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.
10. "You" or "your" means the person whose filed testimony is the subject of these data requests and, to the extent relevant and necessary to

provide full and complete answers to any request, “you” or “your” may be deemed to include any other person with information relevant to any interrogatory who is or was employed by or otherwise associated with the witness or who assisted, in any way, in the preparation of the witness’ testimony.

11. “Company” means Louisville Gas & Electric Company and Kentucky Utilities Company and/or any of their officers, directors, employees, or agents who may have knowledge of the particular matter addressed, and affiliated companies including Pennsylvania Power and Light.

12. “Joint Intervenors” means the Mountain Association (Case No. 2020-0349 only), Kentuckians For The Commonwealth, Kentucky Solar Energy Society, and Metropolitan Housing Coalition (Case No. 2020-0350 only).

INSTRUCTIONS

1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify, and produce for discovery and inspection each such document.

2. These requests for information are continuing in nature, and information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Joint Intervenors. Any studies, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement, and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.

3. Unless otherwise expressly provided, each data request should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.

4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.

5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about and identify each person whom you believe may have additional information with respect thereto.

6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.

7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.

JOINT INTERVENORS' SECOND SUPPLEMENTAL DATA REQUESTS
PROPOUNDED TO LOUISVILLE GAS AND ELECTRIC COMPANY (LG&E) AND
KENTUCKY UTILITIES COMPANY (KU)

Joint Intervenors Second Supplemental Data Requests (JISSDR #)

JISSDR 1:

Please reference the Integrated Resource Plan LGE/KU filed in Case No. 2018-00348 in answer to these questions:

1. In developing the Integrated Resource Plan, the company indicated that “the Companies evaluated whether – in the near-term – existing resources should be replaced with a combination of battery storage and renewables. Several of the cases required significant amounts of replacement capacity in the latter part of the 15-year planning period. For these cases, the Companies evaluated replacement generation portfolios with varying amounts of natural gas and renewable generation, as well as battery storage, for the purpose of demonstrating under what circumstances different portfolios would be least-cost for customers.” 2018 IRP Vol. 1 p. 5-19.

a. Has the company updated the assumptions in the evaluation of whether existing resources should be replaced with a combination of battery storage and renewables, to account for changes in the cost and performance of renewable generation and battery storage? If so, please provide those updated evaluations and assumptions used to support those evaluations. If not, why not?

2. In the 2018 IRP, LGE/KU noted that the “primary focus of resource planning is risk management. Key categories of risk stem from uncertainties related to the way customers use electricity, the performance of generation units, the price of fuel and other commodities, and the future impact of new state and federal regulations. Given these

uncertainties, the Companies developed long-range resource plans for numerous cases over a range of forecasted energy requirements, fuel prices, carbon dioxide (“CO2”) prices, and generating unit operating lives.” 2018 IRP Vol. 1 p. 5-19.

a. Have LGE/KU updated the range of values used for fuel prices and fuel prices? If so, please provide the updated values and updated plans reflecting those new fuel and CO2 prices.

b. Have LGE/KU analyzed the value of distributed renewable generation in:

i. mitigating against volatility of fuel prices?

ii. mitigating the future impact and costs of compliance with new state and federal regulations on air emissions, water discharges, and waste disposal requirements?

iii. mitigating against the cost of compliance specifically with reductions and/or controls on carbon dioxide emissions?

If the answer is “yes” for any of these questions, please provide the analyses performed including all inputs and assumptions.

JISSDR 2:

In the 2018 IRP, LGE/KU assumed that “CO2 prices would begin in 2026 in the High CO2 price scenario.” Has LGE/KU updated the assumptions and prices assigned to CO2 under the various scenarios in the 2018 IRP? If so, please provide all updated assumptions and prices assigned to CO2.

JISSDR 3:

According to the 2018 IRP, the “generation cost forecasts utilized. . . was taken from the 2018 Annual Technology Baseline from the National Renewable Energy Laboratory[.]” The IRP noted that “[s]ince the Companies’ 2014 IRP, the cost of renewable and battery technologies have decreased significantly. NREL expects this trend to continue, albeit at a slower rate.”

1. Has LGE/KU updated the generation technology cost forecasts for renewable and battery technologies to reflect the 2021 Annual

Technology Baseline published by the NREL? If so, please provide those forecasts for PV and PV plus battery.

JISSDR 4:

Reference the Direct Supplemental Testimony of witness Conroy at p. 4:

1. Is it your testimony that 807 KAR 5:054 applies to net metering as authorized and defined in KRS 278.465 - 468?
2. Is it your testimony that an eligible customer-generator taking service under a net metering tariff is a "qualifying facility" whose compensatory credit is governed or limited by 807 KAR 5:054 or the Public Utility Regulatory Policies Act of 1978?
3. Is it your testimony that 807 KAR 5:054 applies to the net metering relationship between a utility and an eligible customer-generator, even though the regulation provides at Section 3 that it applies only to purchases or sales to and from qualifying facilities?
4. It is your testimony that the crediting of the generation fed back to the grid by an eligible customer-generator is a sale or purchase of electricity?
5. Is it the position of yourself and the companies that the jurisdiction and discretion of the Commission to determine fair compensatory credit for fed-in solar and the costs of service of customers taking service under a net metering tariff is limited in any manner by FERC regulation or by 807 KAR 5:054?

JISSDR 5:

On Page 4 of the Direct Supplemental Testimony of witness Conroy, it is stated that:

"In contrast to the limiting principles embedded in the QF regulation, the methodology approved in the Kentucky Power case and now proposed in this case for determining avoided cost has no such boundaries. Under the present proposal, there are eight components, but there are no controls, or checks and balances on adding additional components. Thus, the possibility of adding greater and greater amounts of cost is unlimited. This is a fundamental flaw that cannot be cured."

1. Is it your testimony that the Commission cannot be trusted to determine what components of costs and benefits should be considered in determining the value of the compensatory credit to be assigned fed-back electricity, or the actual cost of service of eligible customer-generators?
2. Is it your testimony that judicial review of a Commission decision "adding additional components" to the eight identified in the Kentucky Power Company case (May 14, 2021 Order, Case No. 2020-00174) is unavailable?
3. If such review is available, would that not constitute a "control, check, and balance?"
4. Are you aware that the Kentucky General Assembly assigned the task of determining the value to be assigned for the compensatory credit for fed-back electricity to the Commission?
5. Did your company support or oppose Senate Bill 100 as it was enacted by the General Assembly?
6. Are you aware that in the Supplemental Direct Testimony of witness Seelye, p. 7 lines 12-19, he acknowledged that the seven avoided cost "components" your testimony references at , which were adopted in the KPC May 14, 2021 Order and were identified in the June 30, 2021 Order in these proceedings, "represent reasonable types of avoided costs that could be considered with respect to export compensation rates under NMS-2"?
7. Given that witness Seelye has acknowledged the 7 avoided cost components adopted by the Commission in the KPC case 2020-00174 (which along with job benefits comprise the "eight components" that are referenced in your testimony at p. 4 line 8, represent reasonable types of avoided costs that could be considered, is there any empirical basis in past Commission Orders for your assertion that "[t]he possibility of adding greater and greater amounts of cost is unlimited. This is a fundamental flaw that cannot be cured." If so, please provide any such evidence.

JISSDR 6:

1. What are the Companies' annual CO2 emissions from each and from all generating units and power supply sources, starting in 2019 and projected through 2050?

2. What were the total methane emissions associated with the Company's natural gas fuel supply (including leakage losses), from the wellhead, to the pipeline, to the final end-use at the power plant, in 2019 and 2020?
3. What are the Companies' annual nitrous oxide emissions from each and from all generating units and power supply sources, starting in 2020 and projected through 2050?
4. What were the Companies' total greenhouse gas emissions, in CO₂-equivalents, including emissions of CO₂, methane, and nitrous oxide, starting in 2019 and projected through 2050?
5. What were the Company's total annual market sales of energy (MWh) in 2017 - 2020 and what are the projected annual sales through 2050?
6. Please provide the range of carbon costs that the Companies' have used in the most recent IRP in making forecasts for meeting customer energy needs.

JISSDR 7:

On p.28 of his testimony (p.70 pdf), Mr. Seelye states:

“As explained in Mr. Sinclair's testimony, currently there are no laws or regulations that put a price on CO₂ emissions. If a price is placed on CO₂ emissions in the future, then an avoided cost could be included in a future filing. Also as explained in Mr. Sinclair's testimony, avoided environmental compliance costs are fully accounted for in the avoided energy and capacity cost components.”

1. Is it yours and the Companies' testimony that if and when a price is placed on CO₂ emissions, the Companies will promptly apply to the Commission to adjust the NMS compensation rates to ensure that customer-generators are fairly compensated for the value they provide by reducing those emissions?
2. Are the Companies proposing to adjust their NMS rates on an ongoing basis to account for changes in CO₂ pricing?

3. Please provide all data, documents, and analysis to show how all environmental compliance costs are included within the Companies' proposed SQF and LQF tariffs.
4. Please provide all internal planning documents and analysis related to potential future regulations, costs, and liabilities for the Companies related to: coal ash management and disposal; coal ash ponds; NOx, SOx, and Mercury emissions; carbon emissions; air quality; water quality; and public health in communities impacted by these environmental impacts.

JISSDR 8:

On p.22 of his Supplemental Testimony (p.65 pdf), Mr. Seelye states:

“With customer-generators there is no assurance that their solar facilities will be in place over a sufficiently long period of time to allow the Companies to avoid or defer generation capacity. In order to allow the Companies to avoid generation capacity, KU and LG&E must have some assurance that any capacity provided by a customer-generator would be in place and operational over a period of time of 20 years or more.”

1. Please provide all data indicating the number of net metering customer-generators who have closed their accounts since the Companies began offering NM service in 2004. What percent of all Company NM customers have closed their accounts? Of these customer-generators who have closed their accounts, how many of the NM generators ceased operation and how many were transferred to new owners and continued operation? What percentage of all generators that have begun service under NMS-I have ceased operation?
2. Please provide the total number of kilowatt-hour credits remaining in the accounts of NM customers who have closed their accounts.
3. Over the years the Companies have provided DSM incentives to customers which have encouraged conservation, through programs that have incentivized the purchase of Energy Star appliances and HVAC systems, for example. These programs have been judged cost effective by the Commission based on a useful life of the equipment which is measured in years. Are the companies arguing that customers may be trusted to operate their refrigerators for their useful life but not their solar PV systems?

JISSDR 9:

On p.25 of his Supplemental Testimony (p. 67 pdf), Mr. Seelye states:

“Furthermore, considering that the Companies’ system loads are projected to decrease over the next ten years, the Companies’ existing transmission infrastructure should generally be adequate to serve future loads on the system.”

1. Please provide all load forecasts and supporting data and documents to justify the statement that the Companies’ system loads are projected to decrease over the next ten years.
2. Please provide all analysis the Company has performed, with supporting documents, to estimate the impact electric vehicles will have on the Companies’ load over the next 25 years. Include all sensitivity analyses performed to assess the impact of varying levels of EV market penetration on the Companies’ load.
3. One important component for transitioning to a zero-carbon economy is the electrification of most or all energy end-uses (such as transportation, space heating, water heating, industrial processes, etc.), coupled with the transition to 100 percent non-carbon-emitting electrical generation. Please provide all analysis the Company has performed, with supporting documents, to assess the impact wide-scale electrification may have on the Companies’ load and capacity requirements over the next 25 years. Include all sensitivity analyses performed to assess the impact of varying rates of electrification on the Companies’ load.

JISSDR 10:

Please provide the following information:

1. Load data (watt-hour and peak watt) at the distribution system level at minimum 1-hour increments (preferably 15-minute increments) and broken out by rate class, for each of the past five years.
2. Detailed transmission system capacity and usage information. Data describing each transmission line capacity, each load and generation asset connected to that line, and RTO/ISO

- interconnection points. Provide all reports and documentation pertaining to the condition of the transmission system.
3. A list of all current generation assets. For each plant include fuel type, nameplate capacity, construction date, planned end of operation date, outstanding debt, non-fuel variable costs, fuel costs, and hourly (or preferably 15 minute) capacity factor.
 4. Demand forecasts for the overall system and each distribution system.
 5. All data, analysis and documentation pertaining to the condition and capacity of the Companies' distribution infrastructure.

JISSDR 11:

1. Identify the Utility Discount Rate the Companies propose to use in the avoided cost calculations. Provide all data, analysis, and references used to determine that this is a reasonable and appropriate discount rate.
2. Identify the Environmental Discount Rate the Companies propose to use in their Avoided Carbon Cost and Avoided Environmental Compliance Cost calculations. Provide all data, analysis, and references used to determine that this is a reasonable and appropriate environmental discount rate.
3. Identify the Companies' reserve margin target and current reserve margin.

JISSDR 12:

On p. 23 of his Supplemental Testimony (p.65 pdf), Mr. Seelye states:

"In no event should the energy cost and capacity value provided to customer-generators exceed the cost that the Companies would incur from purchasing power from a solar purchased power agreement."

1. Is it the Companies' practice to negotiate power purchase agreements to secure the lowest price? Is the price paid for a PPA representative of the value of the resource to the Company or is it based on the lowest cost the Company is able to secure in the market at the time?

2. Is it the Companies' position that the price paid in a solar PPA represents the full value of the resource to the Company?
3. Please provide any documentation or analysis conducted to support the proposition that in negotiating the prices for a solar PPA the Companies seek to assure that the vendor is compensated for the full value of the purchased power to the utility and its customers.

Respectfully submitted,



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2020-00349) and Metropolitan
Housing Coalition (Case No. 2020-
00350)*

CERTIFICATE OF SERVICE

This is to certify that the electronic version of the foregoing is a true and accurate copy of the same document that will be filed in paper medium; that the electronic filing has been transmitted to the Commission on July 22, 2021; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that in accordance with the March 16, 2020 Commission Order in Case No. 2020-00085 an original and ten copies in paper medium of this *Statement Regarding Receipt of Electronic Transmissions* will not be mailed until after the lifting of the current state of emergency.

A handwritten signature in black ink, consisting of a large, stylized 'T' followed by a series of loops and a long horizontal stroke.

Tom FitzGerald