

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matters of:

ELECTRONIC APPLICATION OF KENTUCKY	)	
UTILITIES COMPANY FOR AN ADJUSTMENT OF	)	CASE NO.
ITS ELECTRIC RATES AND APPROVAL OF	)	2025-00113
CERTAIN REGULATORY AND ACCOUNTING	)	
TREATMENTS	)	

AND

ELECTRONIC APPLICATION OF LOUISVILLE	)	
GAS AND ELECTRIC COMPANY FOR AN	)	
ADJUSTMENT OF ITS ELECTRIC AND GAS	)	CASE NO.
RATES AND APPROVAL OF CERTAIN	)	2025-00114
REGULATORY AND ACCOUNTING	)	
TREATMENTS	)	

**KENTUCKY SOLAR INDUSTRIES ASSOCIATION, INC.  
INITIAL REQUESTS FOR INFORMATION TO  
AND KENTUCKY UTILITIES COMPANY AND  
LOUISVILLE GAS AND ELECTRIC COMPANY**

Comes now the Kentucky Solar Industries Association, Inc. ("KYSEIA"), by and through counsel, and, in accordance with the Public Service Commission's Orders dated June 18, 2025 respectfully tenders its Initial Requests for Information to Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E" and collectively "Companies") into the records of each of the above-styled cases.

- 1) In each case in which a request seeks information provided in response to a request of Commission Staff, reference to the Companies' response to the appropriate Staff request will be deemed a satisfactory response.
- 2) Please identify the Companies' witness who will be prepared to answer questions concerning the request during an evidentiary hearing.
- 3) These requests shall be deemed continuing and, therefore, require further and supplemental responses if the Companies receives or generate additional information within the scope of these request between the time of the response and the time of any evidentiary hearing held by the Commission.
- 4) If any request appears confusing, please request clarification directly from Counsel for KYSEIA as soon as reasonable.
- 5) To the extent that the specific document, workpaper, or information as requested does not exist, but a similar document, workpaper, or information does exist, provide the similar document, workpaper, or information.
- 6) To the extent that any request may be answered by way of a computer printout, please identify each variable contained in the printout which would not be self-evident to a person who is not familiar with the printout.
- 7) If the Companies have any objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, please notify Counsel for KYSEIA as soon as reasonable.
- 8) For any document withheld on the basis of privilege, state the following: Date; author; addressee; indicated or blind copies; all person to whom distributed, shown, or explained; and the nature and legal basis for the privilege asserted.

9) In the event that any document called for has been destroyed or transferred beyond the control of the Companies, state: The identity of the person by whom it was destroyed or transferred and the person authorizing the destruction or transfer; the time, place, and method of destruction or transfer; and, the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy, state the policy.

10) As the Companies discover errors in their filing and/or responses, please provide an update as soon as reasonable that identifies such errors and provide the document(s) to support any changes.

WHEREFORE, KYSEIA respectfully submits its Initial Requests for Information to KU and LG&E.

Respectfully submitted,

/s/ David E. Spenard

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### **NOTICE AND CERTIFICATION FOR FILING**

Undersigned counsel provides notices that the electronic version of the paper has been submitted to the Commission by uploading it using the Commission's E-Filing System on this 3<sup>rd</sup> day of July 2025. Pursuant to the Commission's July 22, 2021 Order in Case No. 2020-00085 (Electronic Emergency Docket Related to the Novel Coronavirus COVID-19), the paper, in paper medium, is not required to be filed.

/s/ David E. Spenard

### **NOTICE CONCERNING SERVICE**

The Commission has not yet excused any party from electronic filing procedures for this case.

/s/ David E. Spenard

**KYSEIA's Initial Requests for Information to KU and LG&E**  
**Case Numbers: 2025-00113 and 2025-00114**

1. References: Case No. 2025-00113, Application, Filing Requirements, Volume 1 of 10, Tab 4, Page 104 of 205 [PDF 118 of 438] and 108 of 205 [PDF 122 of 438]; 2025-00114, Application, Filing Requirements, Volume 1 of 11, Tab 4, Page 102 of 204 [PDF 107 of 723] and Page 106 of 204 [PDF 111 of 723]. Additional Reference: Application, Direct Testimony of Michael E. Hornung ("Hornung Direct"), page 18, lines 1 through 5 which states: "The Companies are further revising the Availability section of Riders SQF and LQF to clarify that power purchase agreements, therefore, capacity payments, are available to customers only under buy-all, sell-all arrangements, not to behind-the-meter qualifying facilities in which customers have first call on their facilities' capacity and energy."
- a. For the period from January 1, 2020 to the present, by Company and by year, identify the number of Sellers under each Company's Standard Rate Rider SQF tariff provision from whom the Company purchased "energy and capacity" from the Seller in the absence of the Seller having a power purchase agreement ("PPA") with the Company.
- b. For the period from January 1, 2020 to present, by Company and by year, identify the number of Sellers under each Company's Standard Rate Rider LQF tariff provision from whom the Company purchased "energy and capacity" from the Seller in the absence of Seller having a PPA with the Company.
- c. With regard to the purchases of "energy and capacity" in the absence of a PPA pursuant to either Rider SQF or Rider LQF identified in parts (a) and (b) above, how was(were) the capacity payment rate(s) determined? If there were no purchases of "energy and capacity" pursuant to either Rider SQF or Rider LQF as per the requests in parts (a) and (b), explain the Company's method or approach for how the Company would have determined the various capacity payment rates.
- d. For the existing Rider SQF of each Company, state whether a Seller has an option of entering into a power purchase agreement that is not a buy-all, sell-all arrangement. If yes, identify and describe the other types of power purchase agreement arrangements that are available to a Seller.
- e. For the existing Rider LQF of each Company, state whether a Seller has an option of entering into a power purchase agreement that is not a buy-all, sell-all arrangement. If yes, identify and describe the other types of power purchase agreement arrangements that are available to a Seller.

- f. Regarding Rider SQF, state whether either Company is proposing to eliminate energy (only) purchases from all Sellers who have not entered into a PPA with the Company. If yes, explain why.
  - g. Regarding Rider LQF, state whether either Company is proposing to eliminate energy (only) purchases from all Sellers who have not entered into a PPA with the Company. If yes, explain why.
  - h. Is either Company proposing to eliminate “energy” (only) purchases under power purchase agreements that are not buy-all, sell-all arrangements. If yes, explain why.
2. Reference: Application, Direct Testimony of Charles R. Schram (“Schram Direct”), Exhibit CRS-6, Generation Planning & Analysis, May 2025.
- a. Section 2, at pertinent part on page 3, states: “To focus the analysis on the costs of the Companies’ resources serving native load, market electricity purchases and off-system sales were not permitted in PROSYM.” Refer to Schram Direct, page 31, lines 15 through 17 which states: “The basic idea underlying the concept of avoided costs is that customers should pay no more for energy or capacity from a QF than they would pay for energy or capacity from a non-QF resource.” Fully explain what the phrase “Companies’ resources serving native load” comprises. Include with the explanation an identification of the resources that are assets in the rate bases of either or both of the Companies and, separately, the resources that are not in the rate bases of either or both of the Companies.
  - b. For any amount of time in the period from January 1, 2020 to present, have either Company or the Companies relied upon market electricity purchases for the purpose of serving native load? If yes, please explain why PROSYM is not permitted to consider market electricity purchases for serving native load.
3. Reference: Schram Direct, page 35, lines 7 through 11 that states: “Because the Companies are transitioning from lower economic minimum reserve margins to higher minimum reserve margins developed to reduce the loss of load expectations to one day in ten years, the capacity need is assumed to be immediate, in 2026.”
- a. State the Companies’ position concerning whether net metering customers, SQF sellers, or LQF sellers are providing a present or otherwise immediate capacity benefit regarding the Companies’ immediate capacity need? Fully explain.
  - b. Additional Reference: Schram Direct, Exhibit CRS-6, Page 6 of 14. Under the assumptions that the Companies’ proposals are approved and there are no delays, the earliest in service date for Brown 12 occurs in 2030, the earliest in

service date for Mill Creek 6 occurs in 2031, the earliest in service date for Cane Rune BESS occurs in 2028, and the SCR system at Ghent 2 is projected to be operational in 2028, state the Companies' position concerning whether net metering customers, SQF sellers, or LQF sellers are providing a present or otherwise immediate capacity benefit regarding Companies' need for capacity for which the Companies are pursuing the development of additional capacity and the maintenance of capacity through the pending application for the various certificates of public convenience and necessity for these four (4) projects. Fully explain.

4. Reference: Schram Direct, page 31, lines 15 through 17. At pertinent part, the referenced testimony states that "customers should pay no more for energy or capacity from a QF than they would pay for energy or capacity from a non-QF resource." Additional Reference: Exhibit CRS-6, Section 3.1, Contribution to Timing and Size of Future Need for Capacity, Page 7 of 14 which states, at pertinent part: "As Table 5 shows, 80 MW QF PPAs of single-axis tracking solar, fixed tilt solar, and wind do not result in any changes to the Companies' optimal resource plan."
  - a. Identify the basis for the Companies' apparent position that there is no requirement for the Companies to pay for capacity from a QF in the absence of the capacity from the QF causing a change in the Companies' long-range resource proposals.
  - b. Additional Reference: Schram Direct, page 34, lines 11 through 13. With regard to generation resources (excluding battery storage resources from consideration for this question), is it the Companies' position that the only scenario in which capacity from a QF should be compensated is one in which the amount of capacity from the QF (or from QFs in the aggregate) is (are) sufficient to offset the total capacity amount that would otherwise be met by the addition of a non-QF resource? For this question, for example, with regard to the proposed Brown 12, is it the Companies' position that capacity provided by a QF should only be compensated if the QF or QFs in the aggregate eliminate the need for Brown 12?
5. Reference: Schram Direct, Exhibit CRS-6, page 11 of 14. The Companies recommend limiting QF capacity to the lower of the actual need or 1,000 MW to provide an intermittent generation "circuit breaker" for assessing grid reliability in a scenario where a large amount of QFs are constructed in the Companies' service territories. Additional Reference: Application, Direct Testimony of John R. Crockett III, page 11, lines 1 through 5 which states: "We recognize that we filed a CPCN case in February of this year in which significant investments are proposed to meet expected load growth, which includes two new natural gas combined cycle ("NGCC") generating facilities, a battery energy storage systems, and a pollution control facility for one of our generating units at the Ghent Generating Station."

- a. Given that the Companies have identified load growth in a range from 1,750 MW to 6,000 MW regarding data center projects alone, explain whether, and if applicable why, the Companies' assumptions and assessments regarding grid reliability in scenarios in which a large amount of QFs are constructed in the Companies' service territories.
  - b. With regard to the phrase "large amount of QFs," explain what is meant by the phrase and provide a quantification of this concept to the Companies' existing system and the Companies' system in a scenario in which 6,000 MW of load is added to serve data centers.
6. Reference: Schram Direct, page 39, lines 5 through 7. Please explain in detail how "any avoided costs driven by environmental regulatory changes that affect generation capacity decisions are already reflected in the avoided generation capacity cost component."
7. Reference, Schram Direct, Exhibit CRS-6, page 6 of 14, Table 5. Please explain why an 80 MW solar QF would not substitute for an 80 MW portion of the 815 MW of solar identified in the High Gas scenarios (columns 3 and 5 starting from the left) in the row reflecting the 2025 CPCN Resource Plan.
8. Reference: Hornung Direct, page 18, lines 1 through 5 which describe the Companies' proposal to revise Riders SQF and LQF to limit payments for capacity to QFs that sell power under buy-all, sell-all rates. Please identify any other utilities that the Companies are aware of that limit capacity payments to QFs to buy-all, sell-all power purchase contracts.
9. Reference: Application, Direct Testimony of Peter W. Waldrab ("Waldrab Direct") at page 41, lines 9 through 12 which states: "When distributed energy resources are dispatchable, the serving utility can use them, for example, to time-shift peak demand on circuits nearing capacity to offset the need for capacity upgrades."
  - a. Please admit that distributed energy resources modify the demand on circuits and substations regardless of whether they are dispatched to do so.
  - b. If your response to subpart(a) of this request is anything other than an unqualified admission, please explain in detail.
10. Reference: Waldrab Direct. Please provide the workpapers associated with Exhibit PWW-3 in executable spreadsheet format with all formulas and file linkages intact.
11. Reference: Waldrab Direct, Exhibit PWW-3 at Page 4 of 5 which depicts the shape of peak loads on the LGE Worthington Substation and the KU Newtown Substation in the Companies' hypothetical distribution value analysis, and providing accompanying discussion of their interpretation of the results of that analysis.



- a. Does the Companies' distribution planning and analysis for the Worthington substation utilize the summer peak or the winter peak as the relevant peak load metric when considering whether additional capacity is required to meet customer loads?
  - b. Does the Companies' distribution planning and analysis for the Newtown substation utilize the summer peak or the winter peak as the relevant peak load metric when considering whether additional capacity is required to meet customer loads?
  - c. Do the Companies only upgrade substations if projected peak demands exceed the maximum capacity of a substation by more than 1 MW?
  - d. For each individual substation and distribution feeder on the Companies' system, please provide the following information for the 2023 and 2024 calendar years.
    - 1. The date and time, in prevailing time hour ending format, of the maximum annual peak demand.
    - 2. The maximum annual peak demand.
    - 3. The maximum demand that the substation or distribution feeder, as applicable, is capable of serving.
    - 4. The composition of customers served by that infrastructure broken down by rate class or general category of customer (e.g., residential, commercial, industrial).
12. Reference: Waldrab Direct, Exhibit PWW-3 at Page 2 of 5 which shows the solar production profile that the Companies' used in their distribution value analysis based on the production profile of the Simpsonville Solar Share facility. The flat character midday production in the accompanying figure indicates that solar production during peak solar production hours is being "clipped" due to inverters being undersized relative to the maximum production capability of the solar PV modules.
- a. Please identify the total rated capacity of the solar PV modules for the Simpsonville Solar Share facility.
  - b. Please identify the total rated capacity of the inverters used by Simpsonville Solar Share facility.
  - c. Is it the Companies' experience that inverters for residential solar installations are commonly undersized in relation to the total rated capacity of the solar PV modules present in the system? If so, please provide any supporting evidence that the Companies possess in support of this assertion.

13. Reference: Waldrab Direct, Exhibit PWW-3 at Pages 2 and 3 of 5 discussing sizing considerations for service transformers.
- a. Please describe in detail the tolerance metrics that the Companies' employ to determine whether a customer requires a larger service transformer due to the customer's peak load.
  - b. Please describe in detail the tolerance metrics that the Companies' employ to determine whether a customer requires a larger service transformer due to the maximum export potential from a behind the meter solar installation on the customer's site.
  - c. During 2024, what percentage of the Companies' service transformers experienced peak loads in excess of their rated capacity?
14. Reference: Application, Direct Testimony of Elizabeth J. "Beth" McFarland ("McFarland Direct"). Please provide the workpapers associated with Exhibit BJM-3 in executable spreadsheet format with all formulas and file linkages intact.
15. Reference: McFarland Direct, Exhibit BJM-3 at Page 4 of 6 describing the limits that the Companies' employed on the aggregate amount of distributed energy resources in their transmission value analysis.
- a. Please provide an annual forecast of distributed energy resource capacity for the Companies' systems that is not constrained by the 1% of single hour peak load limit.
  - b. Please provide the results of the Companies' transmission modeling based on a simulation that does not employ the 1% of single hour peak load constraint on distributed energy resource capacity.
16. Reference: McFarland Direct, Exhibit BJM-3 at Page 6 of 6 describing why the MVA flow violation and voltage violations indicated by the "W/O DER" scenarios are not significant.
- a. Is it correct that the Companies would only undertake transmission upgrade investments if violations are considered to be "significant impacts" according to the metrics that define a significant impact in the transmission planning process?
  - b. Please explain in detail the circumstances where the Companies would plan investments based on impacts that fall below the "significant" criteria metrics.
  - c. Please explain in detail the circumstances where the Companies would not plan investments even where impacts are forecasted to be above the "significant" criteria metrics.

17. Reference: Schram Direct, Exhibit CRS-1 and Exhibit CRS-2. In reference to Exhibit CRS-1 and Exhibit CRS-2, please provide in Excel format with all formulas intact, average and median values for all rate classes eligible to participate in net metering, SQF, or LQF rates in an 8,760 hour format the base period(s) and the test year.
18. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025, please provide the data used to calculate the values presented in Table 1: QF Generation Technologies in Excel spreadsheet format with all formulas intact.
19. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at page 4) please provide the following:
- a. An explanation of the intended meaning of the word “decremental”;
  - b. The reference upon which the intended meaning of the word “decremental” is based; and
  - c. A justification for the use of the word “decremental” in the context of calculating the avoided cost.
20. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at page 5) please provide the data and calculations used to calculate the values presented in Table 3: Annual Avoided Energy Cost (\$/MWh) in spreadsheet format with all formulae intact.
21. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at pages 6 and 7):
- a. Please explain fully the decision to use an 80 MW QF and not a different QF capacity amount;
  - b. Please explain how non-“Other” QFs co-located with a BESS were considered and evaluated for their capacity contribution;
  - c. Please provide documentation and model results of all other changes to the dispatch and generation of the Companies’ existing or planned resources under each PLEXOS scenario in Table 5; and

- d. Please explain in full detail with documentation how the Companies' accounted for and the energy-related costs of charging the "battery energy storage system ("BESS")" as defined in Schram Direct at 23:15 in the avoided cost of energy.
22. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at page 7) please provide the data and calculations used to calculate the values presented in Table 7: Cane Run BESS Economic Carrying Charge (\$/MW-Year) in spreadsheet format with all formulae intact.
23. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at page 8) please provide the data and calculations used to calculate the values presented in Table 9: Avoided Capacity Costs Based on Cane Run BESS Cost (\$/MWh) in spreadsheet format with all formulae intact.
24. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6 at page 8) please provide all PLEXOS modeling assumptions related to the allowable BESS unit size in capacity amounts, i.e. 50 MW BESS additions, 100 MW BESS additions, 200 MW Bess additions, etc.
25. Reference: Schram Direct, Exhibit CRS-6. In reference to 2026-2027 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit Generation Planning & Analysis May 2025 (i.e. Exhibit CRS-6) please explain in full detail why no time-differentiated (i.e. on- or off-peak) hourly prices for energy are included and why no seasonally differentiated capacity prices are included.
26. Please provide the results of all studies showing the capacity contribution by resource type – including but not limited to effective load carrying capacity (ELCC) or other similar metrics – the Companies have conducted or caused to be conducted since January 1, 2020.