

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC JOINT APPLICATION OF KENTUCKY )  
UTILITIES CO. AND LOUISVILLE GAS & ELECTRIC CO. )  
FOR CERTIFICATES OF PUBLIC CONVENIENCE AND ) Case No.  
NECESSITY AND SITE COMPATIBILITY CERTIFICATES ) 2022-00402  
AND APPROVAL OF A DEMAND SIDE MANAGEMENT )  
PLAN AND APPROVAL OF FOSSIL FUEL-FIRED )  
GENERATING UNIT RETIREMENTS. )

**JOINT THIRD DATA REQUESTS OF THE ATTORNEY GENERAL AND KIUC**

The intervenors, the Attorney General of the Commonwealth of Kentucky, through his Office of Rate Intervention [“OAG”], and the Kentucky Industrial Utility Customers, Inc. [“KIUC”] hereby submit their Joint Third Data Requests to Kentucky Utilities Co. [“KU”], and Louisville Gas & Electric Co. [“LG&E”][hereinafter jointly referenced as “LG&E-KU” or “the Companies”] to be answered by the date specified in the Commission’s Orders of Procedure, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate request item will be deemed a satisfactory response.
- (2) Identify the witness who will be prepared to answer questions concerning each request.
- (3) Repeat the question to which each response is intended to refer. OAG-KIUC can provide counsel for LG&E-KU with an electronic version of these questions in native format, upon request.
- (4) These requests shall be deemed continuing so as to require further and supplemental responses if the Companies receive or generate additional information within the scope of these requests between the time of the response and the time of any hearing conducted hereon. 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 OAG and KIUC. 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.

(5) Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

(6) If you believe any request appears confusing, request clarification directly from Counsel for OAG-KIUC.

(7) 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.

(8) To the extent that any request may be answered by way of a computer printout, identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.

(9) If the Companies have objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify OAG-KIUC as soon as possible.

(10) As used herein, the words "document" or "documents" are to be construed broadly and shall mean the original of the same (and all non-identical copies or drafts thereof) and if

the original is not available, the best copy available. These terms shall include all information recorded in any written, graphic or other tangible form and shall include, without limiting the generality of the foregoing, all reports; memoranda; books or notebooks; written or recorded statements, interviews, affidavits and depositions; all letters or correspondence; telegrams, cables and telex messages; contracts, leases, insurance policies or other agreements; warnings and caution/hazard notices or labels; mechanical and electronic recordings and all information so stored, or transcripts of such recordings; calendars, appointment books, schedules, agendas and diary entries; notes or memoranda of conversations (telephonic or otherwise), meetings or conferences; legal pleadings and transcripts of legal proceedings; maps, models, charts, diagrams, graphs and other demonstrative materials; financial statements, annual reports, balance sheets and other accounting records; quotations or offers; bulletins, newsletters, pamphlets, brochures and all other similar publications; summaries or compilations of data; deeds, titles, or other instruments of ownership; blueprints and specifications; manuals, guidelines, regulations, procedures, policies and instructional materials of any type; photographs or pictures, film, microfilm and microfiche; videotapes; articles; announcements and notices of any type; surveys, studies, evaluations, tests and all research and development (R&D) materials; newspaper clippings and press releases; time cards, employee schedules or rosters, and other payroll records; cancelled checks, invoices, bills and receipts; and writings of any kind and all other tangible things upon which any handwriting, typing, printing, drawings, representations, graphic matter, magnetic or electrical impulses, or other forms of communication are recorded or produced, including audio and video recordings, computer stored information (whether or not in printout form), computer-readable media or other electronically maintained or transmitted information regardless of the media or format in which they are stored, and all other rough drafts, revised

drafts (including all handwritten notes or other marks on the same) and copies of documents as hereinbefore defined by whatever means made.

(11) For any document withheld on the basis of privilege, state the following: date; author; addressee; indicated or blind copies; all persons to whom distributed, shown, or explained; and, the nature and legal basis for the privilege asserted.

(12) In the event 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 retention policy.

(13) Provide written responses, together with any and all exhibits pertaining thereto, in one or more bound electronic volumes, separately indexed and tabbed by each response, in compliance with Kentucky Public Service Commission Regulations and Orders.

(14) Abbreviations, definitions and instructions:

a. “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.

b. “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.

c. “Senate Bill 4” or “SB 4” refers to Senate Bill 4 enacted by the Kentucky General Assembly during its 2023 Regular Session, which became law on March 29, 2023, and is now enrolled as 2023 Ky. Acts 118.

d. “SB 4 Proceeding” refers to the docket in Kentucky Public Service Commission Case No. 2023-00122, which by Commission Order dated May 16, 2023, was consolidated into the docket for Case No. 2022-00402.

e. "Affected Units" refers to E.W. Brown Unit 3, Ghent Unit 2, Haefling Units 1 and 2, Mill Creek Units 1 and 2, and Paddy's Run Unit 12.

Respectfully submitted,  
**DANIEL CAMERON**  
**ATTORNEY GENERAL**



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**COUNSEL FOR KENTUCKY  
INDUSTRIAL UTILITY CUSTOMERS, INC.**

*Certificate of Service*

Pursuant to the Commission's Orders in Case No. 2020-00085, and in accord with all other applicable law, Counsel certifies that an electronic copy of the forgoing was served and filed by e-mail to the parties of record.

This 31<sup>st</sup> day of May, 2023



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Assistant Attorney General

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1. Refer to the response to AG-DR-1-24 regarding the potential relocation of the Brown 3 SCR to the Mill Creek 2. The response indicates that the Brown 3 SCR is sized for 455 mW, while Mill Creek 2 is a 355 mW unit.
  - a. Indicate whether the Brown 3 SCR could be reconfigured for Mill Creek 2.
  - b. If the response to part (a) of this question is “yes,” then provide the estimated cost and an estimated schedule that would allow Brown 3 to continue to operate during the “key years of GNP compliance,” then retired and the SCR relocated to Mill Creek 2.
2. Refer to the response to AG-DR-2-4 at 5 where in the last paragraph of the response, the Companies refer to a “shortage of allowances” that supports the “retirement or idling of non-SCR units.”
  - a. Describe what is meant by the term “idling” of the non-SCR units and in what circumstances, under what conditions, and for what time period, the Companies could “idle” non-SCR units, e.g., idling Mill Creek 2 until Brown 3 is retired, then relocating the Brown 3 SCR to Mill Creek 2.
  - b. Provide a copy of all “idling” analyses and results the Companies have performed, including all assumptions, data, calculations, and electronic workbooks in live format with all formulas intact. If the Companies have not done any such analyses, then explain why they have not done so.
3. Refer to the response to AG-DR-2-4 at 3 where the Companies state:

“Assuming no investment in SCR controls and no implementation of NGCC in 2027 and 2028 as proposed in the CPCN, modeling for the proposed Good Neighbor Plan depicted a reliance on the allocation market as early as 2026. With the same operational assumptions, the final Good Neighbor Plan depicts a reliance on the allocation market as early as 2027. As a result, the final Good Neighbor plan does not change the timeline for the need to transition to lower emitting generating sources and therefore does not change the 2022 Resource Assessment.”

  - a. Explain why the changes in the final GNP compared to the proposed GNP do not result in a delay of one year for the retirements of Brown 3, Mill Creek 2, and Ghent 2 and replacement of the retired capacity with the proposed new NGCC capacity, all else equal.

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4. Refer to the Companies' Application in the SB 4 Proceeding at paragraph 12. Describe in detail how the Companies' proposed owned solar generation maintains or improves the reliability of the Companies' system compared to the retired electric generating units consistent with the sections of SB 4 cited in this paragraph of the application. Specifically address how the proposed owned solar generation allows the Companies to "safely deliver electric energy in the quantity, with the quality, and at a time that the utility customers demand" on an intermittent basis compared to the retired electric generating units on an around the clock basis regardless of weather and/or sun/daylight conditions.
5. Provide a copy of all internal documents, including operating and/or planning procedures, manuals, and guidelines that address the concept that owned solar resources are "dispatchable" resources as opposed to intermittent resources that are dependent on weather and/or sun/daylight conditions.
6. Refer to the Companies' Application in the SB 4 Proceeding at paragraph 13 wherein it states:

"Senate Bill 4 defines resilience as "having the ability to quickly and effectively respond to and recover from events that compromise grid reliability."<sup>16</sup> Each of the Companies' two proposed NGCC units will have startup times, ramp rates, and a dispatchable capacity range better than each of the Affected Units.<sup>17</sup> Brown BESS will also have the ability, when charged, to respond instantaneously to events that might compromise grid reliability, and the Companies-owned solar facilities will also add to system resilience."

  - a. Confirm that the Companies' proposed owned solar resources will not "have startup times, ramp rates, and a dispatchable capacity range better than each of the Affected Units." If denied, then provide a detailed explanation and all support relied on for your response.
  - b. Explain in detail how the Companies' proposed owned solar resources "will add to system resilience," specifically, how the resources will improve the "ability to quickly and effectively respond to and recover from events that compromise grid reliability."
7. Reference the response to PSC-DR-1-25. Confirm that the Companies' proposed solar generation facilities are not intended to represent capacity additions.



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8. Refer to Ex. SAW-1 in the CPCN proceeding at 24 and Joint Application in the SB 4 proceeding at 5.
  - a. Because the Companies will not have dispatch control over the referenced solar PPAs, would those PPAs be barred by SB 4?
  - b. Are the referenced solar PPAs intended to replace the generating units proposed to be retired in the SB 4 proceeding?
  - c. If the answer to subpart b., above, is “no,” are the referenced solar PPAs intended to be non-replacement (supplemental) resources?
9. Reference the docket in LG&E-KU's 2021 IRP, Case No. 2021-00393, Vol. 3.
  - a. Confirm that in § 2.1 (“Dispatchable Resources”), photovoltaic solar is not identified as a dispatchable resource.
  - b. Conform that in § 2.2 (“Non-Dispatchable Resources”), photovoltaic solar is identified as a non-dispatchable resource.
10. Reference the response to AG-DR-1-49, in which the Companies discussed, *inter alia*, that the proposed dispatchable NGCC units will provide load-following capability. Confirm that the Companies' proposed solar facilities (both owned and procured via PPA) will not provide load-following capability.
11. Explain whether the Companies agree that the dispatch rate for the company-owned solar facilities would be commensurate with established solar irradiance and capacity factors applicable to the Companies' service territories, but could never exceed those capacity factors.
12. Identify and describe all additional equipment and computer technology together with the costs thereof that will allow the Companies to curtail the generation from the proposed owned solar resources. In addition, indicate whether this additional cost is included in the Companies' economic analyses of these resources.
13. Identify and describe in detail each and every circumstance when the Companies would intentionally curtail the generation from the proposed owned solar resources.
14. Confirm that the Companies' proposed BESS is not economic when compared to two portfolios equivalent in all respects, except that in one portfolio the BESS is included

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and in the other portfolio the BESS is not included. If denied, then provide a copy of all studies and analyses relied on for your response.

15. Refer to the Companies' application in the SB 4 Proceeding at paragraph 16 wherein it states: "The Companies' proposal to retire the Affected Units does not result from any financial incentives or benefits offered by any federal agency; rather, it is to ensure safe and reliable service at the lowest reasonable cost in compliance with applicable law and consistent with reserve margin requirements."
  - a. Confirm that the Companies' economic analyses to retire the Affected Units and replace the Affected Units with the proposed owned solar resources does, in fact, reflect financial incentives in the form of tax benefits offered by the federal government set forth in the Inflation Reduction Act ("IRA") that effectively reduce the cost of such resources.
  - b. Indicate whether the Companies have performed economic analyses that do not reflect these financial incentives in the form of tax benefits pursuant to the IRA. If so, describe the changes, if any, to the Companies' proposed new resources (selection, size, and timing) and the comparative CPVRR of the proposed portfolio if such financial incentives were not available. If not, then explain why the Companies did not perform such analyses in response to SB 4 requirement addressed in the Companies' application at paragraph 16.
16. Refer to the Companies' application in the SB 4 proceeding at paragraph 17. Confirm that "all known direct and indirect costs of retiring the electric generating unit" do not include the remaining undepreciated net book value of each of the Affected Units at the date of retirement because these costs are not incremental and will be recovered from customers either through the Companies' Retired Asset Recovery Riders ("RARR") or base revenues.
17. Explain whether the gas-fired units the Companies propose to retire (Haefling Units 1 and 2, and Paddy's Run 12) will have any stranded costs due to undepreciated expense.
  - a. Confirm that several years ago, the Companies either replaced or upgraded the gas supply line for at least one of the Paddy's Run units. In your response, explain also: (i) whether any other improvements or upgrades were made to these units, and if so, (ii) whether those improvements extended the unit's operable lifespans.
  - b. Explain the differences between Paddy's Run Unit 12 and Paddy's Run Unit 13.

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- c. Provide the expected remaining lifespan of Paddy's Run Unit 13.
  - d. Explain whether the retirement and demolition of Paddy's Run Unit 12 will in any manner affect the remaining lifespan of Paddy's Run Unit 13.
  - e. Confirm that Units 12 and 13 are the only remaining generating units at Paddy's Run Station.
  - f. Given that Paddy's Run Unit 11 (retired and mothballed in 2021) had black start functionality, explain whether either or both of Units 12 and 13 have that same functionality.
18. Paragraph 5.3 of the Stipulation in Case Nos. 2020-00349 and 2020-00350 addresses the potential retirements of Mill Creek 1 and 2 and Brown 3 and the recovery of the remaining undepreciated net book value through RARRs. It states:

“The Parties agree that the Utilities remain responsible for retirement decisions regarding electric plant, and in particular regarding electric generating units and stations. Also, the Parties recognize that using depreciation rates as agreed in this Stipulation for Mill Creek Unit 1, Mill Creek Unit 2, and E.W. Brown Unit 3 could result in significant remaining net book value and uncollected decommissioning costs for these generating assets retired after the date of this Stipulation. Therefore, the Utilities shall be authorized to recover the Retirement Costs of such retired assets and other site-related assets that will not continue in use through a Retired Asset Recovery Rider (attached hereto as Stipulation Exhibits 8 (KU) and 9 (LG&E)) until the Retirement Costs are fully recovered. “Retirement Costs” include the net book value, materials and supplies that cannot be used economically at other plants owned by the Utilities, and decommissioning or removal costs and salvage credits, net of related accumulated deferred income tax (“ADIT”). Related ADIT shall include the tax benefits from tax losses. (A) The Retirement Costs exclusive of ADIT are to be recorded as regulatory assets. The Retirement Costs inclusive of ADIT shall be recovered on a levelized basis, including a weighted average cost of capital carrying cost using the most recently approved base rate return on equity. The recovery period for each retired generating unit shall be ten years from the retirement date of the unit. (B) The Retired Asset Recovery Rider will include a credit for the depreciation expense and rate of return component for each retired unit embedded in base rates at that time.”

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- a. Confirm that the Companies agree that the RARR should apply to all retired generating units, including the Affected Units at issue in this proceeding, as well as other units that may be addressed in future SB 4 proceedings.
  - b. Confirm that the Companies do not oppose a clarification by the Commission in this proceeding to avoid any unintentional ambiguity that the RARR is applicable to all retired generating units and is not limited to Mill Creek 1 and 2 and Brown 3.
  - c. Referring to the response to AG-DR-2-15 (a), provide all rationale for why the specific rate recovery methodology for Ghent Unit 2's retirement costs could not be determined in the instant case.
19. Identify all potential paths forward that could maintain the optionality to continue to operate Ghent 2 other than the construction of a new SCR. Provide a copy of all analyses and studies that evaluate each of these potential paths forward.
20. Refer to Table 7 shown in the May 10, 2023 Direct Testimony of Lonnie Bellar at 21 in the SB 4 Proceeding.
- a. Confirm that Portfolio 5 (retire Mill Creek 1 and 2, Brown 3, Ghent 2, PR 12, and HF 1-2 and add DSM, MC5 and Brown 12) on Table 7 shows CPVRR savings of \$588 million on average, that Portfolio 6 (same as Portfolio 5, but add owned solar) shows CPVRR savings of \$528 million on average (reduction in savings of \$60 million compared to Portfolio 5), and that Portfolio 7 (same as Portfolio 6, but add BESS) shows CPVRR savings of \$407 million on average (reduction in savings of \$121 million compared to Portfolio 6).
  - b. Explain why the Commission should approve the addition of owned solar when it will cost customers \$60 million more in CPVRR than Portfolio 5.
  - c. Explain why the Commission should approve the addition of BESS when it will cost customers \$121 million more in CPVRR than Portfolio 6.
21. Reference the response to AG-DR-2-2. Provide a copy of the Joint Reliability Coordination Agreement once it is finalized. Please consider this an ongoing request.
22. Reference the response to AG-DR-2-3.
- a. Confirm that the "economic retirement," as referenced in the response to subpart c., of each of Brown Unit 3, Ghent Unit 2, and Mill Creek Unit 2 will nonetheless result in stranded costs due to undepreciated expense.

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- b. Provide a discussion regarding the extent to which the Companies have investigated the extraction of rare earth minerals and metals from coal combustion residual materials, including coal ash, and/or from coal refuse materials. Explain also whether the Companies are aware of the University of Kentucky's studies in this regard. If the Companies have not conducted any such investigations or studies, explain why not.
23. Reference the response to AG-DR-1-19. Given the Commission's exclusion of all expenses related to dues for membership organizations in the Companies' last rate cases, explain whether the Companies will remove these sums from collectible DSM expenses.
24. Reference the response to PSC-DR-3-2, and the application generally. Confirm that the savings referenced in subpart a. to PSC-DR-3-2 are not net of the stranded costs that will occur as a result of the retirement of the Affected Units.
25. Reference the response to PSC-DR-3-10 (b). Explain how the characteristics of Ghent Unit 2 and Mill Creek Unit 2 would or might change in the event SCR is added to each unit.
- a. Can the Companies confirm that the addition of SCR to these units would not trigger an EPA New Source Review?
26. In the event the Companies extend the lives of Ghent Unit 2 and Mill Creek Unit 2 by adding SCRs to each unit, explain whether:
- a. the SCRs could be timely constructed and operational in order to comply with the Good Neighbor Rule and all other applicable environmental regulations and requirements;
  - b. the units could continue to operate year-round until the effective enforcement date of the EPA's proposed CO<sub>2</sub> regulations, which is anticipated as 2035.
  - c. Keeping the units open until 2035 would trigger any reliability concerns.
  - d. Keeping the units open until 2035 would add to the Companies' resilience.
  - e. Keeping the units open until 2035 would leave the Companies with adequate reserve capacity.

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- f. Keeping the units open until 2035 would not harm ratepayers.