

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

ELECTRONIC TARIFF FILING OF	)	
KENTUCKY UTILITIES COMPANY	)	CASE NO. 2022-00371
FOR APPROVAL OF AN ECONOMIC	)	
DEVELOPMENT RIDER SPECIAL	)	
CONTRACT WITH BITIKI-KY, LLC	)	

**SUPPLEMENTAL DATA REQUESTS OF JOINT INTERVENORS  
KENTUCKIANS FOR THE COMMONWEALTH, KENTUCKY SOLAR  
ENERGY SOCIETY, MOUNTAIN ASSOCIATION, AND KENTUCKY  
RESOURCES COUNCIL, INC.**

Ashley Wilmes  
Tom FitzGerald  
Kentucky Resources Council  
P.O. Box 1070  
Frankfort, KY 40602  
(502) 551-3675  
[Ashley@kyrc.org](mailto:Ashley@kyrc.org)  
[FitzKRC@aol.com](mailto:FitzKRC@aol.com)

*Counsel for Joint Intervenors Kentuckians  
for the Commonwealth, Kentucky Solar  
Energy Society, Mountain Association, and  
Kentucky Resources Council*

Dated: December 21, 2022

## **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 both conjunctive and disjunctive, unless specifically stated otherwise.
8. “Each” and “any” should be considered 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. “KU” or “the Company” means Kentucky Utilities Company and/or any of its officers, directors, employees, or agents who may have knowledge of the particular matter addressed, and affiliated companies.
12. “Joint Intervenors” means the Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy Society, and Kentucky Resources Council, Inc. who were granted the status of full joint intervention in this matter.
13. “Proposed Special Contract” means the proposed special contract between KU and Bitiki-KY that is at issue in this proceeding.
14. “Proposed Facility” means the facility to be constructed by Bitiki-KY in Waverly, Kentucky that is the subject of the Proposed Special Contract.
15. “Bitiki-KY” means Bitiki-KY, LLC and/or any of its officers, directors, employees or agents who may have knowledge of the particular matter addressed, as well as any affiliated companies (including Bitiki Blockchain, LLC).
16. “CC” means combined cycle.
17. “CCGT” means combined cycle gas turbine.

## **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.

**SUPPLEMENTAL DATA REQUESTS PROPOUNDED TO KENTUCKY  
UTILITIES COMPANY BY JOINT INTERVENORS**

- 2.1. Please refer to the Company's response to Joint Intervenors' Request 1.1. Please confirm whether or not the Company has in its possession any documents or other information from Bitiki-KY concerning the "approximately five new jobs" that would purportedly be created by the Proposed Facility, other than the contract and accompanying letters referenced in the response. If the Company does have any such documents or information in its possession, please produce copies of any such documents or, in the case of any information that is not in the form of a document, please describe the information in the Company's possession.
- 2.2. Please refer to the Company's response to Joint Intervenors' Request 1.2. Please confirm whether the Company has in its possession any documents or other information from Bitiki-KY concerning the types of jobs that will be created by the Proposed Facility, their anticipated annual starting salary, any educational requirements or other prerequisites, and whether the jobs will be performed in person at the Proposed Facility or could be performed remotely. If the Company does have any such documents or information in its possession, please produce copies of any such documents or, in the case of any information that is not in the form of a document, please describe the information in the Company's possession.
- 2.3. Please refer to the Company's response to Joint Intervenors' Request 1.3. Please confirm whether the Company has in its possession any documents or other information from Bitiki-KY substantiating the \$25 million in anticipated investment in the Proposed Facility that is referenced in the Proposed Special Contract. If the

Company does have any such documents or information in its possession, please produce copies of any such documents or, in the case of any information that is not in the form of a document, please describe the information in the Company's possession.

- 2.4. Please refer to the Company's response to Joint Intervenors' Request 1.17. Does the Company believe that it is appropriate to offer an EDR contract to any customer who meets the criteria identified in the Company's response to Joint Intervenors' Request 1.1? Please explain in detail why or why not.
- 2.5. Please refer to workbook named, "KU\_DR1\_JI\_Attach\_to\_Q19\_Production\_PVRR\_Analysis\_2021\_with\_Summary", worksheet named "Summary", where it states, "The rationale behind this is that the Economic Development Rate determined by the Company will be charged on an NCP basis for demand." Please explain why the Economic Development Rate would be charged on a non-coincident peak basis for demand.
- 2.6. Please refer to the workbook named "KU\_DR1\_JI\_Attach\_to\_Q26\_-\_Cost\_Comparison".
  - a. Please provide the supporting analysis for the Demand Charges shown in cells E14 to E16.
  - b. Please explain why cells E14 to E16 are added together.
- 2.7. Please refer to the Company's response to Joint Intervenors' Request 1.3 where the Company states, "Also, KU is aware that Bitiki now has facilities on-site that are operating and creating significant electrical load already. Thus, this is not a merely speculative operation; it is currently operating and growing."
  - a. Please provide the billing information for the time that Bitiki has been operational in 2022.
  - b. Please identify the current load and load factor for the facility.
  - c. Does the Company anticipate that the facility's load and/or load factor will change in 2023, in the absence of Commission approval of an Economic Development Rate for the facility? If yes, please explain in detail what changes are anticipated. If no, please explain why not.
- 2.8. Please refer to the Company's response to Joint Intervenors Request 1.1. Please identify the current number of jobs at the Bitiki-KY facility and explain if the "approximately 5 new jobs" would be new additions to any current employees at the facility that is already operational.
- 2.9. Please refer to workbook named "KU\_DR1\_JI\_Attach\_to\_Q19\_Production\_PVRR\_Analysis\_2021\_with\_Summary", worksheet named "Prod Economic Carrying Charge", cells D28:E29.
  - a. Please explain if the coincidence factor reported in this cell represents the coincidence of the Companies' firm customer demand to the total system demand.

- b. If not, please explain what the coincidence factors are based on.
- 2.10. Please refer to workbook named “KU\_DR1\_JI\_Attach\_to\_Q25\_-\_Avoided\_Transmission\_Capacity\_Cost\_Analysis\_2021”, worksheet named “Transmission Avoided Cap Cost”, cells B32 and C34. Please provide the supporting calculations for the coincidence factors reported in the referenced cells.
- 2.11. Please refer to workbook named “KU\_DR1\_JI\_Attach\_to\_Q25\_-\_Avoided\_Transmission\_Capacity\_Cost\_Analysis\_2021”, worksheet named “Transmission Avoided Cap Cost”. Please explain the difference between the forecasted total system demand reported in cells C29 and B30 and what was reported in Tables 7-19 and 7-20 of the 2021 IRP.
- 2.12. Please refer to page 10 of the Marginal Cost Study where it states “The marginal production energy cost per kWh of additional energy for both LG&E and KU is \$0.03447. In addition, it would be necessary to adjust the marginal energy cost value to reflect the applicable loss-factor for a prospective customer which could take service at a transmission, primary or secondary voltage” and “Again, it would be necessary to adjust the marginal transmission cost value to reflect the applicable loss-factor for a prospective customer which could take service at a transmission, primary or secondary voltage.”
- a. Please provide the applicable loss-factor to adjust the marginal energy cost value.
  - b. Please provide the applicable loss-factor to adjust the marginal transmission cost value.
- 2.13. Please refer to Table 8-1 on page 8-1 of the 2021 Integrated Resource Plan and the workbook named “KU\_DR\_JI\_Attach\_to\_Q13\_-\_Reserve\_Margin” provided in response to Joint Intervenors 1-13.
- a. Please explain what assumption has been made to result in a different Gross Peak Load between what was reported in Table 8-1 of the 2021 IRP and the Gross Peak Load provided in “KU\_DR\_JI\_Attach\_to\_Q13\_-\_Reserve\_Margin”.
  - b. Please explain if the Gross Peak Load forecast provided in “KU\_DR\_JI\_Attach\_to\_Q13\_-\_Reserve\_Margin” includes the load addition from the Ford Motor electric vehicle battery facility.
- 2.14. Please refer to page 7 of the Marginal Cost of Service Study. Please provide the anticipated online date and MW size for the Ford Motor electric vehicle battery facility.
- 2.15. Please refer to the Company’s response to Commission Staff’s Question 2-A where the Company stated: “It is correct that KU and LG&E’s modeling reported in the 2021 IRP assumed that NGCC units would require carbon capture and sequestration (“CCS”), and the models selected simple-cycle combustion turbines (“SCCTs”) rather than NGCC units based on that assumption. But it is also true

that when KU and LG&E's models did not assume NGCC required CCS, the model selected NGCC units rather than SCCTs. That result held even when the model was permitted to select additional coal unit retirements and at carbon prices ranging from \$0 to \$25 per ton. Indeed, KU and LG&E's model selected NGCC without CCS at carbon prices as high as \$120 per ton, and it selected NGCC, with or without CCS, as a generation technology to deploy at carbon prices as high as \$150 per ton (the price at which the Companies stopped modeling carbon). It was therefore reasonable for The Prime Group to use NGCC to calculate marginal production demand costs."

- a. Please explain if the modeling referenced in the response to Staff's Question 2-A included capacity expansion modeling that allowed new resources to be selected over the entirety of the planning period.
- b. Please explain if the modeling referenced in the response to Staff's Question 2-A included capacity expansion modeling that only allowed for new resources to be selected in the year 2035.

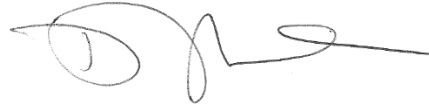
2.16. Please refer to the Company's response to Commission Staff's Question 2-A where the Companies stated "In addition, the capacity expansion plans conducted by an outside consultant, Guidehouse, Inc., as part of KU and LG&E's most recent RTO membership analysis indicated that adding NGCC capacity in 2028 was optimal in both the standalone and RTO membership scenarios with no carbon pricing. The load forecast Guidehouse used in its analysis included an anticipated Ford BlueOval SK Battery Park peak load of 320 MW. With the more recent reduction in expected load for the battery park (annual peak load of 254 MW), there is strong reason to believe that adding 13 MW of Bitiki load would not advance the 2028 capacity need."

- a. Please provide the planning period over which the capacity expansion modeling was performed.
- b. Please provide the name of the capacity expansion model that was used for the analysis performed by Guidehouse.
- c. Please provide the capacity expansion plans for the modeling runs conducted by Guidehouse.

2.17. Please refer to pages 9-10 of the Marginal Cost Study where it states "Specifically, the Company provided data for the twelve months ended December 2023 pertaining to the marginal costs for fuel, consumables (including scrubber reactants and other reagents), ash and waste disposal, and emission allowances for all 8,760 hours based on each hour's marginal generating unit for the next MW of capacity needed on the system" and the workbook named "CONFIDENTIAL – KU DR1 JI Attach to Q24 – 2023 Monthly Marginal Cost Components."

- a. Has the Company provided information concerning monthly emissions costs? If so, please identify where that information has been provided.
- b. To the extent not already provided, please provide the historical monthly emissions allowance cost for each of the Company's thermal units for the years 2021 and 2022.

Respectfully submitted,



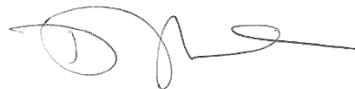
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Tom FitzGerald  
Ashley Wilmes  
Kentucky Resources Council  
P.O. Box 1070  
Frankfort, KY 40602  
(502) 551-3675  
[Ashley@kyrc.org](mailto:Ashley@kyrc.org)  
[FitzKRC@aol.com](mailto:FitzKRC@aol.com)

*Counsel for Joint Intervenors  
Kentuckians for the Commonwealth,  
Kentucky Solar Energy Society, Mountain  
Association and Kentucky Resources  
Council, Inc.*

### **CERTIFICATE OF SERVICE**

In accordance with the Commission's July 22, 2021 Order in Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19*, this is to certify that the electronic filing was submitted to the Commission on December 21, 2022; that the documents in this electronic filing are a true representations of the materials prepared for the filing; and that the Commission has not excused any party from electronic filing procedures for this case at this time.



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Tom FitzGerald