

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF ELECTRONIC 2019 :
INTEGRATED RESOURCE PLANNING REPORT OF : **Case No 2019-00443**
KENTUCKY POWER COMPANY :

SECOND SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
TO KENTUCKY POWER COMPANY

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Dated: July 23, 2020

DEFINITIONS

1. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, notices, confirmations, telegrams, pamphlets, notations of any sort concerning conversations, telephone calls, meetings or other communications, bulletins, transcripts, diaries, analyses, summaries, correspondence investigations, questionnaires, surveys, worksheets, and all drafts, preliminary versions, alterations, modifications, revisions, changes, amendments and written comments concerning the foregoing, in whatever form, stored or contained in or on whatever medium, including computerized memory or magnetic 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 residence address, his or her present 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.), number of code number thereof or other means of identifying it, 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.
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 interrogatories 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 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. "AEP" means American Electric Power and/or any of their officers, directors, employees, or agents who may have knowledge of the particular matter addressed.
12. "Company" means Kentucky Power Co. d/b/a American Electric Power, and/or any of their officers, directors, employees or agents who may have knowledge of the particular matter addressed.

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 interrogatories 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 Kentucky Industrial Utility Customers. 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 interrogatory 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.
8. Responses to requests for revenue, expense and rate base data should provide data on the basis of Total Company as well as Intrastate data, unless otherwise requested.

**KIUC's SECOND SET OF DATA REQUESTS
TO KENTUCKY POWER COMPANY
CASE NO. 2019-00443**

- Q.2-1 KIUC 1-4 requested the Company to provide Plexos derived output reports.
- a. The Company supplied 13 expansion plan case files in response to KIUC 1-1, but just 11 files associated with Plexos output. Please either provide the missing cases, or if they are not available, explain why that is.
 - b. The Company's Plexos reports provide a summation to derive total system costs. Does the Company have corresponding energy balance reports, that would show how native load plus sales balances with generation plus purchases plus emergency energy? If so, please provide that for all 13 cases, and if not, please provide all components to derive an energy balance.
- Q.2-2 See Figure 29 on page 102 containing the Large Scale Solar Pricing Tiers with ITC and refer to the workpapers: KPCO_R_KIUC_1_11_ConfidentialAttachment1.xlsx and KPCO_R_KIUC_1_11_ConfidentialAttachment1.xlsx
- a. Attachment1 contains the LCOE values for the Figure 29, however, the LCOE values that derive Figure 29 are pasted-in values (See Tab=KY Solar Cost) and Attachment4 does not show the calculation of the values that were used to create Figure 29. Please provide the specific workpaper, electronically with all formulas intact, and provide all input assumptions that led to the derivation of the Tier 1 and Tier 2 LCOE values.
 - b. For the solar resources added in 2023 and 2024 in the Preferred Resource Plan, explain the Company's ITC assumptions, and describe how ITC was treated in the calculation of the LCOE values.
 - c. For the solar resources added after 2030 in the Preferred Resource Plan, explain the Company's ITC assumptions, and describe how ITC was treated in the calculation of the LCOE values.
 - d. For the Solar resources added in 2023 and 2024, identify where the VO&M, FO&M, and Transmission Interconnection costs may be found in the LCOE calculations, and explain the basis for the assumptions used.
 - e. Please identify any other solar costs that were included in the derivation of the Solar LCOE cost, and explain the basis for those costs.
- Q.2-3 See the Response to KPSC 1_49. Would the Company have an objection for modeling purposes to assume that it could contract for market capacity purchases on a year by year basis? In other words, if the Company believes that contracts for up to three years could be obtained, would the Company find it objectionable to allow its optimization model to add market capacity purchases that would either have a 1, 2 or 3 year life? This would mean that market capacity purchases could be selected all the way through the planning period by the optimization model. If the Company finds this objectionable, please explain the reasons why.
- Q.2-4 See KIUC 1-15, in which the Company stated, "Similarly, an increase in capacity prices would indicate that new generation is required to meet reserve margins. Consequently, the model-driven valuation of capacity value may not reflect the vagaries of the regulatory process affecting PJM capacity prices."

- a. Please clarify this as it appears the Company is explaining that the results it uses for modeling purposes are lower than what it believes will actually occur. Please clarify this statement.
- b. If the results are lower than what the Company believes will actually occur, why hasn't the Company derived modeling adjustments to address this issue?
- c. Please provide a list of studies in which the Company relies on these market capacity prices besides the IRP and indicate if the Company believes that its market capacity prices are possibly too low for use in those studies?

Q.2-5 See KIUC 1-27 Attachment 1. The Company stated that it ran the System Advisor Model to validate its capacity factor assumption. What is the purpose of all of the financial data in that report, and why does it differ from what the Company used for the IRP (for example, the \$1.72/W Installed Cost)?

Q.2-6 Please provide the hours that the Company considers to be on-peak and off-peak for use in deriving its on-peak and off-peak energy prices.

Q.2-7 KIUC 1-11 requested workpapers for the tables and graphs presented on various pages in the IRP report. KIUC seeks clarification as follows:

- a. For pages 79-82, the Company referred to the Company's response to KIUC 1-9. However, KIUC 1-9 did not fully supply workpapers for all of the lines on the graphs showing all of the forecasts. For example, Figure 18, Nominal natural gas prices includes Base, Higher Band, Lower Band and No CO2 gas price forecasts. The same is true for the other figures as well. Please supply all of the workpapers for those forecasts.
- b. Please provide workpapers for the Table 13 on page 93. Workpapers were not provided in response to KIUC 1-11.

Q.2-8 Please provide workpapers for Figure 27 on page 98 concerning energy storage. On that page, the Company states that it developed the figure based on a review of a wide range of sources. This request seeks the workpapers the Company created evaluating those sources, which led to the creation of Figure 27.

Respectfully submitted,

/s/ Michael L. Kurtz

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June 23, 2020