

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
POWER COMPANY FOR (1) A GENERAL)	
ADJUSTMENT OF ITS RATES FOR)	
ELECTRIC SERVICE; (2) APPROVAL OF)	
TARIFFS AND RIDERS; (3) APPROVAL OF)	CASE NO.
ACCOUNTING PRACTICES TO ESTABLISH)	2020-00174
REGULATORY ASSETS AND LIABILITIES; (4))	
APPROVAL OF A CERTIFICATE OF PUBLIC)	
CONVENIENCE AND NECESSITY; AND (5))	
ALL OTHER REQUIRED APPROVALS AND)	
RELIEF)	

COMMISSION STAFF'S NINTH REQUEST FOR INFORMATION
TO KENTUCKY POWER COMPANY

Kentucky Power Company (Kentucky Power), pursuant to 807 KAR 5:001, is to file with the Commission an electronic version of the following information. The information requested herein is due on March 16, 2021. The Commission directs Kentucky Power to the Commission's March 16, 2020 and March 24, 2020 Orders in Case No. 2020-00085¹ regarding filings with the Commission. The Commission expects the original documents to be filed with the Commission within 30 days of the lifting of the current state of emergency. All responses in paper medium shall be appropriately bound, tabbed, and indexed. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 16, 2020), Order at 5–6. Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 24, 2020), Order at 1–3.

Each response shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the 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.

Kentucky Power shall make timely amendment to any prior response if Kentucky Power obtains information that indicates the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which Kentucky Power fails or refuses to furnish all or part of the requested information, Kentucky Power shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, Kentucky Power shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to the January 13, 2021 Order, pages 79–80. Explain whether the denial of Kentucky Power's advanced metering infrastructure proposal impacted the cost

or plan to implement Tariff N.M.S. II (Tariff NMS II). If yes, provide a detailed explanation of the changes in cost or implementation of Tariff NMS II.

2. Refer to the Application, Exhibit D, and page 112 of 185 and page 134 of 185, Tariffs N.M.S.I (Tariff NMS I) and Tariff NMS II, which state that Kentucky Power's technical interconnection requirements are available online and upon request. Explain why Kentucky Power's technical interconnection requirements are only available online or upon request and not included in the tariff or filed with the Commission in some other manner.

3. Describe the meter and associated metering requirements for the current Tariff NMS. Include in the response, but do not limit it to, the following:

a. Explain whether the "standard kilowatt-hour meter capable of measuring the flow of electricity in two directions" separate or different from the standard residential meter.

b. If the answer to part (a) is yes, provide the cost for the meter used for the current Tariff NMS and the cost for a standard residential meter, and the cost to install and program the current Tariff NMS meter compared to a standard residential meter.

c. Describe in detail the functionalities available in the current Tariff NMS meter (e.g., interval or block metering).

d. If the current Tariff NMS meter functionality allows for time of use rates, provide the incremental costs for Kentucky Power and for Kentucky Power customers to implement said rates.

4. Describe the meter and associated metering requirements for the proposed Tariff NMS II. Include in the response, but do not limit it to, the following:

a. Describe in detail the functionalities available in the utilized meter (e.g., interval or block metering, two channels, number of time of use blocks possible).

b. Explain whether the meter will be capable of collecting imports and exports, such as netting consumption and production, over three time-of-use periods.

5. Refer to the proposed Tariff N.M.S. II. Explain what type of data and the degree of granularity that the time-of-use meter will collect and store for the proposed Tariff NMW II.

6. Describe in detail Kentucky Power's plan to utilize.

7. Provide, in detail, Kentucky Power's plan to utilize photovoltaic systems and other distributed energy resources related data collected from Tariff NMS II meters to:

a. Improve and lower costs associated with customer distributed energy resource interconnection.

b. Improve distribution system planning.

8. Refer to Kentucky Power's response to Commission Staff's Eighth Request for Information (Staff's Eighth Request), Item 1(a). For the period from 2016 to present, provide the total number of Level 2 Net Metering Applications received by Kentucky Power and the number of Level 2 Net Metering Applications that required an initial impact study.

9. Refer to Kentucky Power's response to Staff's Eighth Request, Attachment 1.

a. Confirm that the amounts included in the Attachment are for the initial impact study and that the customers were only responsible for the costs up to \$1,000. If it cannot be confirmed, explain why not.

b. Separately identify, quantify, and explain the individual impact study cost components that make up the totals in the "Invoice Amount" column of the attachment.

c. Explain whether Kentucky Power is aware of the cost to other AEP Service Corporation operating companies to conduct similar (i.e., over 45 kW) distribution impact studies, and if so, provide the cost and a reference.

d. Explain whether Kentucky Power is aware of the cost to other similar utilities to conduct similar (i.e., over 45 kW) distribution impact studies, and if so, provide the cost and a reference.

10. Refer to Kentucky Power's response to Staff's Eighth Request, Item 7. Explain whether Kentucky Power collects load study data from the residential class annually, and if so, provide the load study sample data for the last five years and a description of Kentucky Power's method for collecting load study data. Where applicable, provide the response in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

11. Refer to Kentucky Power's response to Staff's Eighth Request, Items 7 and 11. Define "internal load," specifying which Kentucky Power customers are encompassed in that measurement, and at what system level that measurement is taken.

12. Refer to the Direct Testimony of Alex E. Vaughan (Vaughan Direct Testimony) and the Direct Testimony of Jason M. Stegall (Stegall Direct Testimony),

generally. Explain whether Kentucky Power connects residential customers with one uniform kW service line or has more than one service line size. If Kentucky Power has more than one size of service line, provide the number of residential customers connected to each size of service line.

13. Refer to Vaughan Direct Testimony and Stegall Direct Testimony, generally. Provide the number of residential customers taking service by size of final line transformer in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

14. Refer to Vaughan Direct Testimony and Stegall Direct Testimony, generally.
a. Provide the number of multi-family residence residential customers that Kentucky Power has in its service territory.

b. Explain whether Kentucky Power has segment load research data for multi- versus single-family residence residential customers. If yes, provide the most recent calendar year of data available in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

c. Explain whether Kentucky Power has equipment cost data, such as for service drops, differentiated by multi- versus single-family residence residential customers. If yes, provide the data, in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

15. Refer to Vaughan Direct Testimony and Stegall Direct Testimony, generally.
a. Explain whether Kentucky Power differentiates rate or cost elements between customers that are served by overhead versus underground lines.

b. Explain whether Kentucky Power allocates costs differently among customers that are served by overhead versus underground lines.

16. Explain whether Kentucky Power's time-of-use tariffs include differentiated periods based on cost causation, and if not, explain why not.

17. Refer to Vaughan Direct Testimony, page 26, lines 12–13.

a. Explain why Kentucky Power did not choose to use a time-varying compensation rate although it has chosen to use time-of-use netting periods for this rate.

b. Provide the number of customers taking service under each of Kentucky Power's time-of-day rates, both the total number of customers and the total broken out by customer class.

c. Explain whether Kentucky Power has conducted any load research or bill impact studies on the customers actually utilizing Kentucky Power's time-of-day rates. If studies have been conducted, provide a copy of the studies. If studies have not been conducted, state whether Kentucky Power plans to conduct such research.

18. Refer to Vaughan Direct Testimony, page 27, lines 1–3. State whether Mr. Vaughan is familiar with PJM Interconnection LLC's (PJM) effective load carrying capability (ELCC) construct,² and if so, explain whether and how Kentucky Power's position is consistent with ELCC construct.

19. Refer to Vaughan Direct Testimony, generally.

a. Explain, in detail, how Kentucky Power incurs transmission charges and provide the load characteristics that Kentucky Power's transmission charges based on, such as a monthly coincident peak or another characteristic.

² See <https://www.pjm.com/directory/etariff/FercDockets/5832/20201030-er21-278-000.pdf>

b. Explain whether and how PJM administers transmission costs to Kentucky Power and what number of peaks such costs are based on.

c. Explain and justify how Kentucky Power classifies and allocates transmission costs to customer classes, including the number of peaks costs are based on.

20. Refer to Vaughan Direct Testimony, generally. Provide all Kentucky Power residential net metering customer load profiles for the most recent five years. Provide the response in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

21. Refer to Vaughan Direct Testimony, generally. Provide the most recent ten-year load forecast at the total system level and disaggregated by customer class. Provide the response in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

22. Refer to Kentucky Power's response to Kentucky Power's Response to Kentucky Solar Industries Association, Inc.'s (KYSEIA) First Request for Information, Item 2(c).

a. Describe the specific components of the online portal that will reduce the cost of processing applications.

b. State when the online portal will be operational.

c. Describe the expected application cost savings from the online portal.

23. Refer to Kentucky Power's response to KYSEIA's Second Request for Information, Item 1.

- a. Define the RPM capacity construct.
- b. Provide the data, analysis, and calculations for the \$76.53 /MW-day and \$140/MW-day cleared in the base residual auctions for the 2020/2021 and 2021/2022 delivery years, respectively, in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.
- c. Describe Kentucky Power's methodology for calculating the assumed value of \$100/MW-day from the \$76.53/MW-day and \$140/MW-day that cleared PJM base residual auctions for 2020/2021 and 2021/2022 delivery years, respectively. Provide all data and analysis used for the calculation in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

24. Refer to Kentucky Power's response to KYSEIA's Third Request for Information, Item 3, Attachment 1.

- a. Provide PJM hourly real-time LMP in a load node in Kentucky Power's service territory for each of the past five years in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible. Provide a citation to the data source.

- b. Provide the PJM monthly system peak by hour and MW for the past ten years in Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible. Provide a citation to the data source.

25. Refer to Mountain Association, Kentuckians for the Commonwealth, and Kentucky Solar Energy Society's (Joint Intervenors) First Request for Information, Item 20.

- a. Confirm that Kentucky Power's billing system does not require any coding to create or bill a new tariff.
- b. Explain how meter reading and meter data communication will be accomplished under the Tariff NMS II, including but not limited to a discussion of the technology that will be necessary to accomplish meter reading and meter data communication.
- c. Explain whether Kentucky Power currently has technology that can remotely collect and store time-of-use metering data from the proposed Tariff NMS II.



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DATED MAR 08 2021

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