Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_001 In the Company's response to Staff 4-82 a correction was made listing that, "As of the end of the test year, the Company has 46 net metering customers, all of whom are using solar generation systems. Thirty six of these are residential installations with an average installed capacity of 8.84 kW per system." This leaves 10 commercial net metering customers for which no corresponding information was provided.

a. Please list the commercial N.M.S. average installed capacity and total capacity.

b. What is the percentage of total N.M.S. capacity that is residential and percentage of total that is commercial?

RESPONSE

a&b. All of the requested information was already provided in the Company's response to Staff 4-82 and KPCO_R_KPSC_4_82_Attachment1. Customers 37-46 are commercial accounts as indicated by their tariff descriptions and a class indicator of "C".

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_002 For each row in the response provided in KPCO_R_KPSC_4_82_Attachment1 please provide the ratio of the annual sum of Rcvd (kWh) to Delv (kWh). Also provide the ratio of the sum of all Residential Rcvd (kWh) to Delv (kWh) and a ratio of the sum of all Commercial Rcvd (kWh) to Delv (kWh).

RESPONSE

Objection. The Company does not maintain the requested information in the format requested and has not performed the requested calculations. Subject to and without waiving the foregoing objections, the Company states: The requested information can be calculated from the Company's response to Staff 4-82, thus please refer to the Company's response to Staff 4-82.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_003 In KPCO_R_KPSC_4_82_Attachment1, the Company lists 318.20 kW (AC) Residential, 213.40 kW (AC) General Service, and 30.00 kW (AC) Large General Service. As of September 16, 2020, what is the current overall N.M.S. capacity for Residential, General Service and Large General Service?

RESPONSE

KPCO_R_KPSC_4_82_Attachment1 lists 318.20 kW (AC) Residential, 231.40 kW (AC) General Service, and 30.00 kW (AC) Large General Service. The overall N.M.S. installed capacities as of September 16, 2020 are 476.10 kW (AC) for Residential, 231.40 kW (AC) for General Service, and 30.00 kW (AC) for Large General Service.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_004 The Company response to JI_1_001 d) states that "The existing meter is replaced with a dual register meter for all customers when they begin taking N.M.S." Company response to JI_1_023 states, regarding TOU meter, "The cost to program a commercial meter is approximately $118.50 (no meter change out required)."

Please clarify, for commercial customers taking N.M.S. whether a meter change is required or whether the existing meter can be programmed?

RESPONSE

If the commercial customer had a single-phase meter, then the meter would need to be replaced in order for the customer to take N.M.S. If the commercial customer had a three-phase meter, then the meter would need to be reprogrammed.

Witness: Stephen D. Blankenship

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_005 Does the creation of daily netting time blocks with N.M.S. II for solar customer-generators incentivize daytime kWh consumption (that aligns mostly with T.O.D. on-peak)?

Is there any circumstance where it is more cost-effective to KPC to incentivize T.O.D. on-peak consumption over off-peak? Do N.M.S. II and T.O.D. rates incentivize competing objectives, and if not, why not?

RESPONSE

The Company objects to this request as compound. Subject to and without waiving the foregoing objection, the Company states as follows: The rate structure of proposed tariff NMS II properly incentivizes a net metering customer to align their customer generation with their load profile. It does not incentivize on-peak usage beyond what can be produced by the customer's qualifying generator as the customer would pay standard retail tariff rates for said usage.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_006 If a customer investing in solar submits a net metering application for N.M.S. service before the N.M.S. II service tariff is approved, but due to weather or other contingencies (including KPC's own delay in changing meter) the system is not "operational" before N.M.S. II service is applied, would they be served under N.M.S. or N.M.S. II?

RESPONSE

If the Commission approves proposed Tariff NMS II, all new qualifying generators operational after that date will take service under NMS II. Please also see the Company's response to KYSEIA 1-13(b).

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_007 The Company response to JI_1_012 states that, "Reduced load at the distribution level can produce certain avoided generation and transmission costs...."
a. Do investments in efficiency by the customer similarly reduce load at the distribution level?
b. Do investments in efficiency by the customer produce "certain avoided generation and transmission costs" and if so, please explain whether those avoided generation and transmission costs are the same, different, greater, or smaller than reduced load due to N.M.S. generation?
c. If the answer to b. is that energy efficiency measures installed by the customer provide similar avoided generation and transmission costs, please explain and justify why investments in N.M.S. generation are being singled out for supposed cost recovery while investments by customers in efficiency are not?
d. What is the aggregate annual dollar value of cost recovery alleged by KPC to be lost due to customers taking N.M.S.? Please provide the basis for that determination.
e. What is the aggregate annual dollar value of cost recovery alleged by KPC to be lost due to customer investments in efficiency? Please provide the basis for that determination.

RESPONSE

a. Investments in efficiency may reduce distribution level load.

b. They may, but it depends on the specific load reduction as to its impact on the Company's cost causing peaks and as such the avoided costs will differ by specific program/type of load reduction. Generally speaking, the marginal cost of energy (PJM LMP) can be assumed to be an avoided cost for load reductions.

c. Please refer to the Company's response to part b.

d. The basis for the Company's proposed NMS II tariff is the prevailing Kentucky law.

e. The Company has not performed the requested analysis. See also the Company's response to part d.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_008 The Company response to JI_1_013 question, "Do you agree that distribution losses from substation delivery points to points of use are greater than distribution losses from a distributed generation resource delivery point (e.g. meter of a customer-generator taking N.M.S.)?" was "Yes, when the instantaneous load is being served by the distributed generation resource at the meter point."
What about if the instantaneous load is not at the customer-generator meter point, i.e. instantaneous export generation is occurring?

RESPONSE

If a customer generator is exporting back on to the Company's distribution system, then distribution losses are still occurring.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_009 The Company response to JI_1_035 (should be 1_034) lists, "The entire population of outdoor lighting plant has an average age of 9.19 years." Explain why the new LED Lighting Services include added language for customers who would like to convert their existing lamps to LEDs and the charges associated with the upgrade: "Existing outdoor lighting customers who wish to convert from non-LED lamps to a new LED fixture shall pay a monthly charge of $3.33 per lamp replaced, per month for 84 months."
a. What is the basis for distinguishing and imposing a charge for LED conversions when such a charge is not included for any other requested change in Lighting Service?
b. Will the imposition of such a charge encourage or discourage conversion to more efficient LED lighting?

RESPONSE

a. The basis for the proposed conversion charge is that if a customer with working non-LED lamp wants to convert to a new LED offering then they should be responsible for paying for their portion of the remaining net book value of the non-LED lamps. This proposed charge will better align lighting rates with the recovery of the underlying costs as the Company transitions to LED lighting service. Absent the charge, recovery of the remaining net book value of the non-LED lamps would occur through new depreciation rates and would be spread over all lamps, and paid for by all lighting customers.

b. The Company cannot speculate what may or may not cause an existing lighting customer to convert from non-LED lamps to LED lamps.

Witness: Alex E. Vaughan

DATA REQUEST

JI_2_010 The Company response to JI_1_039 lists actions taken by KPC to help customers mitigate the new demand charge imposed on them resulting from the 2017 rate case. Included in that response was the identification of G.S. customers with an average monthly demand of 25 kW or greater.
a. Of the G.S. customers identified with an average monthly demand of 25 kW or greater, how many are now on other tariff options, such as time-of-day tariff as a result of meeting to discuss the impacts of the rate case on those customer's bills?
b. Of the G.S. customers identified with an average monthly demand of 25 kW or greater, what was the average kWh and kW billed during the test year?
c. What was the average kWh billed during the test year applied in Case No. 2017- 00179?
d. For all rows in KPCO_R_JI_1_39_Attachment1 please list average demand billed during the test year, providing that information in Excel format, and identifying accounts that are now closed.

RESPONSE

a. Seventeen G.S. customers with an average monthly demand of 25 kW or greater identified in Company response to JI_1_039 are now on other tariff options as a direct result of meeting to discuss the impacts of the Company's 2017 rate case on those customers' bills.

b. Please see KPCO_R_JI_2_10_PublicAttachment1. The confidential version of this attachment will be provided upon the execution of a non-disclosure agreement.

c. Please see the Company's Exhibit F to its application in Case No. 2017-00179, which can be found in attachment KPCO_APP_Section_II_Volume_3_Filing_Requirements_Exhibits_F_through_P.

d. The average demand billed during the test year for all rows in KPCO_R_JI_1_39_Attachment1 is 9,957 kWh or 36.5 kW. Please see KPCO_R_JI_2_10_PublicAttachment1. The confidential version of this attachment will be provided upon the execution of a non-disclosure agreement.

Witness: Brian K. West

Witness: Alex E. Vaughan

Witness: Cynthia G. Wiseman

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_011 Refer to KPC Company response to JI_1_039. Of the approximately 84,400 residential customers of KPC utilizing electric heating, how many heat their homes primarily with electric furnaces or baseboard heating, i.e. non-heat pump?

RESPONSE

The Company does not track the requested information regarding the type of electric heating customers utilize.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_012 Referring to JI_1_024, if the Commission denies the request to approve AMI metering, considering the Company's testimony that the meters they use for TOU are no longer manufactured, what type of meter would the Company use for N.M.S. II customers? What would be the cost (material, installation, programming) for these alternate meters?

RESPONSE

Once the current stock of AMR meters is exhausted, the current solution would be to purchase used AMR meters from other AEP operating companies at net book value or to replace the meter with an existing cellular meter. The costs could vary based on the type of meter required and customer classification. The average cost of a non-cellular meter that has not been put into service would be approximately $402. This would include $217 for the meter and $185 to install and program the meter. The average cost for a residential cellular meter would be approximately $717. This would include $598 for the meter (PS008) and $119 to install and program the meter. See Joint Intervenors 1-23, in which the Company explained that the cost of a new AMI meter is $95 and can be programmed remotely.

Witness: Stephen D. Blankenship

DATA REQUEST

JI_2_013 Referring to JI_1_020, is the Company asserting that they have invested no paid staff or contract labor in the development of the N.M.S.II tariff?
a. Can the KPC's current billing and accounting system accommodate metering and accounting for on-peak and off-peak customer generation and consumption as proposed for N.M.S.II?
b. Is it correct that no new accounting or administrative systems would be required to manage data produced by the new meters required for N.M.S.II?
c. The Company has stated that TOU meters cost $385 to purchase and install. AMI meters cost $95 (no price for installation and programming was provided). Both meter types are more costly than the standard meter traditionally used for net metering ($36.72).
d. Considering the KPC testimony about the incremental costs of the new meters that would be required for N.M.S.II, does the Company want to revise their response to JI_1_020?

RESPONSE

No, the Company has made no such assertion. The Company stated that no incremental costs were incurred or would be incurred in preparation of proposed tariff NMS II or billing of new customers under NMS II. Please refer to the Company's response to JI 1-21. The Company continues to state that it paid no contractors or incremental internal staff than would have otherwise been used to prepare this rate case to develop and prepare proposed Tariff NMS II.

a. Yes, the Company's existing billing system can bill proposed tariff NMS II.

b. Yes. Please refer to the Company's response to JI 1-21.

c. The Company objects to this subpart of this request because it states an argument rather than asking a question. Subject to and without waiving the foregoing objection, the Company states: The current meters used for NMS customers, and standard service customers, are not a viable continued metering solution, hence the Company's proposal to begin replacing them with AMI meters. See also the direct pre-filed testimony of Company witness Blankenship.

d. No. Customers pay rates based on underlying infrastructure and operational costs, they are not charged out of pocket for the differing amounts of infrastructure used to serve each customer.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_014 Referring to KPCO_R_KPSC_3_1_Attachment17, what modeling program or tool was used to estimate hourly solar energy production? Did KPC model the solar performance and evaluate its impact on customer load and peak demand in every hour of the year? Please provide the results of such modeling.

RESPONSE

Please refer to the Company's response to Staff 4-82 where it states "The hourly solar output was developed by the solar project development company, vetted internally by the Company and by a third-party expert."

The Company did not model the hourly solar energy, it relied upon the developer and a 3rd party expert to do so. The Company does not know what model was utilized.

The hourly effect of the representative solar facility on the Company's distribution load is included in KPCO_R_KPSC_3_1_Attachment17.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_015 Referring to JI_1_003, how does KPC reconcile the requirement that "all new net metering installations will require a time of use meter" with KRS 278.466(2), which states that "Each retail electric supplier serving a customer with eligible electric generating facilities shall use a standard kilowatt-hour meter capable of registering the flow of electricity in two (2) directions"?
Explain how KPC justifies proposing a tariff that requires a non-standard kilowatt-hour meter when the law does not authorize or permit the utility to require use of non-standard kilowatt-hour meters as a condition of service for net metering customers?

RESPONSE

The Company objects to this request to the extent it seeks a legal opinion. Subject to and without waiving the foregoing objection, the Company states as follows: The Company is not proposing a tariff that requires a non-standard kilowatt-hour meter. AMI meters are the current industry standard meter. The AMI meters provide all necessary measures including kilowatt-hour, bi-directional current flow, and time-of-use. Furthermore, time-of-use meters are commonly used in the provision of standard service, as is also the case for full interval meters for determining class load research characteristics.

Witness: Stephen D. Blankenship

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_016 Please provide all sources and references consulted or relied on by the Company in developing its methodology for accounting the costs and benefits of net metering.
Please provide all sources and references consulted or relied on by the Company in developing its new N.M.S.II tariff.

RESPONSE

The Company has not proposed an "accounting of the costs and benefits of net metering" in this proceeding, it has proposed a new net metering service tariff (Tariff NMS II) that comports with KRS 278.465, KRS 278.466, and KRS 278.467.
The Company relied upon the above referenced KY statutes, advice of its legal counsel, and the experience of its expert rate making and cost of service personnel to develop proposed Tariff NMS II.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_017 Mountain Association, in helping tax-exempt enterprises save energy costs through billing reviews, has found that some tax-exempt enterprises are being billed by KPC for sales tax. Historically, tax-exempt enterprises sharing their tax exemption certificate with KPC Customer Service, were credited with paid in sales taxes going back as much as five years. However, in the last few years there has been no credit made for prior sales taxes paid in by a tax-exempt entity, just the removal of sales tax going forward.

What is KPC's current policy on this and why? On what basis is KPC refusing to credit back sales taxes charged to tax-exempt enterprises?

RESPONSE

Kentucky Power objects to this request as vague and ambiguous and because it mischaracterizes Kentucky Power's past practice with regard to sales tax exemption. Subject to and without waiving the foregoing objections, Kentucky Power states: Kentucky Power is not "refusing" to credit back sales taxes charged to tax-exempt enterprises. Kentucky Power cannot determine whether an account is tax exempt unless the customer submits the required tax certificate to establish its tax exempt status. The Company has no way of determining or confirming the date on which an enterprise became tax exempt and must rely upon the tax exemption certificate provided by the customer. Accordingly, Tariff K.S.T. provides that the customer must provide the appropriate documentation to avoid the collection of sales tax.

Should a customer present tax-exempt documentation subsequent to the opening an account, the Company, in accordance with its tariff, will prospectively exempt the account from collection of sales tax. Kentucky Power does not provide refunds for past amounts paid, as the Company has no way of determining when a customer's tax exemption status began.

Witness: Brian K. West

Witness: Allyson L. Keaton

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_018 As of the last six billing cycles:
a. What is the number of current accounts with greater than 30 days past due dollar amounts? Please list those accounts by rate class.
b. What is the total dollar amount that is more than 30 days past due? Please list those amounts by rate class.
c. What is the number of current accounts that were past due as of May 28, 2020? Please list those accounts by rate class.

RESPONSE

Please see KPCO_R_JI_2_18_Attachment1 for the requested information.

The data provided for subparts a. and b. was produced by a different query than the data provided for subpart c. To provide data for the last six billing cycles as requested, which the Company interpreted as six complete instances of all 21 billing cycles in a month, the only data available was from a query that captured delinquent balances at the time each of the 21 billing cycle is billed. This differs from the data query used in subpart c., which captured delinquent balances at a point in time.

The Company interpreted the reference to May 28, 2020, in subpart c., to refer to the Company's filing in Case No. 2020-00176. Kentucky Power thus updated the original data query from that filing. As noted above, that query was designed to capture delinquent balances from the Company's billing system at the point in time May 28, 2020, used in that case. The information provided for subpart c. is the same information provided to the Commission on September 15, 2020, in supplemental discovery responses in Case No. 2020-00176.

Further, the Company provided the number of accounts and delinquent balances for subparts a. and b. that include 30, 60, 90 and 90+ delinquency. In this way, the data is more comparable to the data provided in subpart c.

Witness: Brian K. West

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_019 How does the company determine the costs to include in the residential basic service charge?
a. Identify the functionalized costs included in the residential basic service charge (i.e. billing, postage, etc.)
b. Provide the USOA account numbers where the company records these costs.

RESPONSE

Please refer to the direct testimony of Company witness Vaughan, pages 9-22 for a discussion on how rates are designed and the Company's proposal surrounding the basic service charge.

a. Please refer to the Company's response to KPSC Staff 3-1, KPCO_R_KPSC_3_1_Attachment15 for the requested information.

b. Please refer to filing schedule section V, schedule 4 for the Company's cost of service. A portion of the investment or operating expenses in the following FERC accounts could be included in the Company's basic service charge proposal in this case:
- 901-916
-580-598
-403
-Under account 101:
sub accounts 360-370
-The distribution portions of 108, 107 and 106

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_020 Provide the Company's current Integrated Resource Plan (both public and confidential versions).

RESPONSE

Please see https://psc.ky.gov/PSC_WebNet/ViewCaseFilings.aspx?Case=2019-00443 for a copy of the public version of Kentucky Power's 2019 Integrated Resource Plan. The confidential version of Kentucky Power's 2019 Integrated Resource Plan, labeled KPCO_R_JI_2_20_ConfidentialAttachment1, will be provided upon the execution of a non-disclosure agreement.

Witness: Brian K. West

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_021 Provide all analyses performed by the company (or its contractors) to evaluate the cost impact of installing AMI meters for residential customers. Include all analysis performed by the company showing the residential bill and rate impact when the cost of the meters is included in rates.

RESPONSE

Please see the direct testimony of Stephen D. Blankenship, page 17, Figure 5 and the direct testimony of Alex E. Vaughan at Exhibit AEV-8.

Witness: Stephen D. Blankenship

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_022 Provide all analyses relied on by the company when evaluating whether and to what extent net-metered customers contribute to fixed-cost recovery.

RESPONSE

The Company objects to this request because it is overly broad, unduly burdensome, and is not reasonably calculated to lead to the discovery of admissible evidence. The request is also vague and ambiguous as to the term "analyses". Subject to and without waiving the foregoing objections, the Company states: Net metering customers contribute to fixed cost recovery when they pay an amount in excess of the variable cost of service for the kWh they consume every day. The Company has not relied upon any analyses in observing this fact.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_023 Referring to KPCO_R_KPSC_4_82_Attachment1.xlsx, please add the following information to that table for each customer: annual S-REC production, operational date, and solar rebate amount (if any).

RESPONSE

Please refer to KPCO_R_JI_2_23_Attachment1 for a version of KPCO_R_KPSC_4_82_Attachment1 that contains the system operational dates. The Company does not track whether a customer received any tax incentives related to their solar installation. The same is true for renewable energy credit (REC) production, however 1,000 kWh equals 1 MWh and 1 MWh equals 1 REC.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_024 Provide a complete list of all Qualifying Facilities (cogeneration and small power production facilities) that have a contract with the Company for parallel generation service. Include generation technology, system capacity, and operational date for each.

RESPONSE

The Company has one Qualifying Facility with a contract for parallel generation. Kentucky Power is informed that the facility expects to start generating in late October 2020. The generation technology is gasification of waste feedstock with an approved system capacity of 6.8 MW.

Witness: Brian K. West

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_025 Provide the estimated costs (including any software upgrades and staff time) the company will incur in order to perform the analysis required to calculate and bill net-metering customers under the proposed NM.S. II tariff.

RESPONSE

The Company expects no incremental cost to bill NMS II customers above what would otherwise incurred to bill them under standard service. The requested analysis has not been performed. Please also refer to the Company's response to JI 2-13.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_026 Provide the number of company's residential and commercial net-metering customers who are currently served under tariffs with demand rates. For each customer served under such tariff provide all analyses performed by the company to determine the amount of that customer's contribution to fixed costs of service.

RESPONSE

The 10 commercial (tariffs GS and LGS) accounts are served under rate schedules with on peak kW demand charges. The Company has not performed the requested analysis.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_027 For each of the last five years provide the financial cost of net metering to the utility. Provide all analysis performed to show the rate impact, if any, of providing service under the current N.S. tariff, on non-net-metering customers.

RESPONSE

The Company objects to this request because it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. It is also overly broad and unduly burdensome. Subject to and without waiving the foregoing objections, the Company states that it has not performed the requested analysis.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_028 Please describe, and provide complete and detailed documentation on, all current programs that the company currently operates relating to solar energy, wind energy, and other forms of renewable energy, including, but not limited to, the name of the program, annual budget, the customer classes to which the program applies, the number of participating customers, and the applicable tariff sheets. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

RESPONSE

The Company objects to this request because it seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, the Company states: The Company currently offers optional Rider Renewable Power Option (RPO) for customers interested in renewable energy. The tariff is publicly available on the Company's website in its Commission approved tariff book. The are no customers currently taking service under Rider RPO. The Company cannot speculate on future offerings.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_029 Please describe, and provide complete and detailed documentation on, all current programs that the company currently operates relating to energy efficiency, including, but not limited to, the name of the program, annual budget, the customer classes to which the program applies, the number of participating customers, and the applicable tariff sheets. Please include information for any programs that have been provided in the past 5 years. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

RESPONSE

Please see attachment KPCO_R_JI_2_29_Attachment1 for requested list of information related to the Company's energy efficiency programs. Most of the energy efficiency programs were discontinued by final Order in Case Number 2017-00097. Further information may be viewed on the related Annual Demand Side Management filings. The case numbers are:

- 2019-00410
- 2018-00377
- 2017-00097
- 2016-00281

Kentucky Power currently does not have new programs planned or in development for the future.

Witness: Scott E. Bishop

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_030 Please describe, and provide complete and detailed documentation on, all current low-income or income-eligible programs that the company currently operates relating to energy efficiency and renewable energy, including, but not limited to, the name of the program, annual budget, the customer segment to which the program applies, the number of participating customers, and the applicable tariff sheets. Please include information for any programs that have been provided in the past 5 years. Please provide information for any programs currently planned and/or in development for the future. To the extent these have been provided in testimony or response to other requests, please identify same.

RESPONSE

The only current low-income program operated by the Company is the Targeted Energy Efficiency program. Other energy efficiency programs were discontinued by final Order in Case Number 2017-00097. See response to KPCO_R_JI_2_29 for the requested details on the Targeted Energy Efficiency program.

Kentucky Power currently does not have new programs planned or in development for the future.

Witness: Scott E. Bishop

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_031 For each program described in response to Questions JI-2-28, JI-2-29, and JI-2-30, are the costs of KPC offering such programs paid only by the customers within each class that participate in the particular program, or are the costs of offering programs such as energy efficiency, demand side management, and low income energy assistance programs shared by all customers in the rate class?

RESPONSE

The costs of the renewable power option tariff as described in the response to question JI-2-28 are assigned to the participants of the program.

The cost of the programs in questions JI-2-29 and JI-2-30 are shared by all customers in the rate class. The Commission has approved the rates and costs of these programs. Individual industrial class customers with energy intensive processes may opt out of any applicable programs in conformity with KRS 278.285(3) and with Commission approval.

Witness: Scott E. Bishop

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_032 From 2015-2019 KPC received $18,484,000 in revenue on residential and $9,683,000 on commercial customer sales, collectively $28,167,000 in these five years. On the contrary, KPC saw $58,787,000 in lost revenues to other and $14,657,000 to industrial customers, collectively a revenue loss of $ 73,444,000 in these five years. Compared to all investor-owned utilities, KPC's total revenue loss of $(45,2777,000) appears to have been larger than the groups' total revenue loss of $(14,700,000).
a. Please confirm whether KPC has had the most significant revenue loss among all investor-owned utilities for the period identified above. Please explain why it is fair, just, and reasonable to ask residential and commercial customers that provide KPC with increasing revenue to endure continuing rate increases to offset lost revenue from two different customer groups?
b. Please document how increased rates and tariffs align with KPC's expressed goals of providing affordable services at reasonable rates and can attract and retain businesses.
c. Please explain how KPC can maintain its financial integrity in the short, mid, and long-term by offsetting big revenue/load losses from "other" and industrial customers that appear most likely to continue to decline, by imposing proposed rate and tariff increases on residential and commercial customers?

RESPONSE

The Company objects to this request because it is overly broad and argumentative and because it is premised upon graphics not created by Kentucky Power and data whose source is indicated in only the most general manner. Subject to and without waiving these objections, the Company states:

a, b and c. The Company cannot confirm the allegations. The Company strives to maintain its financial health so that it can attract capital needed to provide adequate, efficient, and reasonable electric service at fair, just, and reasonable rates to its Kentucky retail customers. Please refer to the pre-filed direct testimonies of Company witnesses Vaughan, Stegall, and West for discussions regarding cost allocation, revenue allocation, and rate design.

Witness: Alex E. Vaughan

DATA REQUEST

JI_2_033 KPC proposes rate increases for residential and commercial customers in order to recover annual revenue and an increase in ROE from 6.7% to 10%.

a. Please confirm whether the lost revenue is a result of declining sales to other and industrial customers, a total load decline of 1,897,49,000 kWh from 2015-2019, representing a revenue loss of $73,494,000 in the same five years period.

b. Unlike other investor-utilities, KPC saw a higher load decline to other and also residential and commercial customers (212,835,000 kWh). KPC enjoyed an increased revenue of $28,167,000 from residential and commercial customers from 2015-2019. KPC proposes to spend part of the revenue from increased rates and tariffs to recover the cost of planned distribution modernization investment (AMI).

a. Please explain how the imposed higher revenue from increased rates for residential and commercial customers will improve profitability and bring a return on equity (ROE) from 6.7% to 10%.

b. Please explain whether the low ROE is in part related to improvements in customer investment in efficiency. Explain how and whether increased revenue spent on automated metered infrastructure (AMI) will improve efficiency and improve the ROE?

RESPONSE

The Company objects to this request because it is overly broad and argumentative and because it is premised upon graphics not created by Kentucky Power and data whose source is indicated in only the most general manner. The Company further objects because the predicate to the data request is inaccurate and incomplete. Subject to and without waiving the foregoing objections, the Company states:

a. The Company cannot confirm these allegations. However, the Company has lost load and revenues from all rate classes over the time period in question.

b. The Company cannot confirm these allegations. There is no question in this subpart.

c. Mathematically speaking, all other things being held equal, more revenue will increase the computed return on equity.

d. The Company cannot speculate on how much energy efficiency has contributed to the load loss the Company has experienced in recent years. The requested revenue increase for the Company's proposed investment in AMI is for the reasons stated in the pre-filed direct testimony of Company witnesses Blankenship and West.

Witness: Alex E. Vaughan

DATA REQUEST

JI_2_034 KPC states that it faces emerging reliability challenges in the form of service interruptions due to vegetation outside the right-of-way that has significantly increased over the last several years due to continuous heavy rainfalls, plant disease, and insect infestation. KPC projects the accumulated vegetation management cycle cost for 2019-2023 to $107,543,809 (Section III, Phillips-29, Table 7). At the same time, KPC has seen a decline in its customer base, where other investor-owned utilities have enjoyed growth. Explain whether KPC's proposal is to spread the increasing costs of operation over a declining number of customers with declining usage.

a. Integrated resource planning (IRP) is the process of identifying longer-term investments to meet reliability and public policy objectives at a reasonable cost and to attract investors. Please explain why investment in AMI or grid modernization rather than in addressing emerging issues like long miles of vulnerable powerlines, serving a declining customer base and a declining load is a better investment for ratepayers and customers.

b. Please respond to the proposition that distributed generation with storage, offering a blend of community solar, rooftop solar, solar facilities creating a micro-grid infrastructure could be more cost-effective than the current generation portfolio. Please explain whether KPC uses IRP to identify the least-cost or best-value solutions to provide electricity services long-term to its customers and to be able to attract the necessary investors. Provide a copy of the most recent IRP.

RESPONSE

Kentucky Power provides “adequate, efficient, and reasonable service” to all customers as mandated by KRS 278.030(2) without regard to whether the customer count is increasing or decreasing. The reliability of the distribution system must also be maintained regardless of how many customers remain on the system. A decrease in the number of customers does not cause a corresponding decrease in the amount of distribution lines that must be maintained. The current cost of service will be spread across the current number of customers.

The Company’s distribution vegetation management program, first approved by the Commission in 2010, yielded a significant improvement in the reliability of Kentucky Power’s distribution system, and constitutes an important part of the Company’s efforts

to meet its statutory duty. The distribution vegetation management program, along with other distribution system improvements, for example, resulted in the Company's Customer Minutes Interrupted from inside the right-of-way causes declining 84 percent from 12,280,664 minutes in 2011 (the first full year of the program) to 2,072,958 minutes in 2019 (the most recent complete year).

The program also enabled the Company to establish a five-year maintenance cycle beginning January 1, 2019. With the establishment of the five-year cycle, Kentucky Power's distribution vegetation management program annual operating and maintenance costs declined from 27,840,992 in 2017 to $21,312,894 in 2019. Kentucky Power's 2023 forecasted expenditure for the program is $22,101,559 and thus remains well below that required to achieve a five-year cycle.

a. An IRP is not designed to attract investors as the question states. The purpose of Integrated Resource Planning ("IRP") is to meet an electric utility's future demand with an adequate and reliable supply of electricity at the lowest possible cost for all customers within the utility's service area, and to satisfy all related state and federal laws and regulations. IRPs are a plan at a point in time and are subject to change as conditions change.

No single tool is sufficient to maintain and improve the Company's distribution reliability. The Company's proposed investments in AMI and grid modernization are not in competition with issues such as vegetation management or improving reliability, as this question suggests, but rather acts in concert with the Company's effort to address existing and emerging issues.

Further, AMI is one of the first steps in modernizing the electric distribution grid. A modern grid needs to have the ability to know exactly what the load is doing at any given time so that the grid then can make adjustments. Kentucky Power has made advancements in reducing long vulnerable lines and adding automation to the distribution system; however, to take full advantage of grid modernization requires that the Company know the load characteristics of the customers so the grid can accommodate any customers' needs as they happen, including the needs of distributed generation customers.

b. Kentucky Power's most recent IRP was filed before this Commission in December 2019 in Case No. 2019-00443. That IRP included then-current estimates of growth for distributed generation, options for storage as a resource, and utility-scale solar resources (which is more cost-effective than rooftop or community solar options). The model the Company uses solves for a least-cost solution to its inputs that is used to develop a Preferred Plan, and over the planning period that Preferred Plan included 455 MW

(nameplate) of solar being added from 2023 through 2034. The model did not select storage as a cost-effective option over the planning period.

The Company considers storage and other technologies as alternatives (as “non-wires alternatives”) to traditional transmission and distribution solutions when reviewing alternatives to specific projects. These solutions are reviewed on a case-by-case basis as they arise. At this time these solutions are generally not cost-effective on a broad basis across the Company’s grid. However, the Company will continue to analyze such options going forward as technology costs continue to change.

Please see the Company's response to Joint Intervenors 2-20 regarding a copy of the Company's most recent IRP.

Witness: Everett G. Phillips

Witness: Brian K. West

DATA REQUEST

JI_2_035 Please confirm whether KPC has, over the past five years, enjoyed the highest revenue per residential customer among the investor- owned utilities and the average of rural electric cooperative utilities. Please confirm whether KPC also has the highest cost per kWh for residential and commercial customers. KPC states that without a continuing rate and tariff increase, the Company cannot operate successfully. Please explain why increasing rates and costs of service over the past five years have not lead to successful operation without the need for additional rate and cost increases.

a. Please explain the basis upon which KPC justifies deployment of AMI and alternatives considered by the utility to such deployment?

b. Demographic changes, declining median income, declining jobs are problems facing KP's customer base. What number and percentage of KPC's residential customers receive "low-income home energy assistance program" assistance? How many additional residential customers will need such assistance if the proposed rate and cost increases are approved? How much more assistance will be needed for existing recipients, on an annual basis, to offset those proposed increases?

RESPONSE

Kentucky Power cannot provide the requested confirmations and objects to the characterization of the Company in this question.

a. Please see the direct testimony of Company Witness Blankenship, pages 2-18, for the justification of the Company's proposed AMI deployment and alternatives considered. The alternative would be to upgrade the current AMR system that is becoming obsolescent, which would cost (based on a preliminary estimate) approximately $22 million, or 60% of the proposed AMI meter project, without providing any of the benefits of the AMI program and without resolving obsolescence problems. There is only one vendor that supplies the upgraded AMR meters. It is not prudent to sustain an obsolete technology when it is inevitable that the Company will have to convert to the industry standard AMI system in the future. Replacing the AMR system with another AMR system now would cost customers more money in the future.

b. During the test year, the Company had approximately 10,600 residential customers who received assistance from LIHEAP, LIHEAP Crisis or one of the Company's HEA

programs. The Company cannot speculate on increases or decreases in the amount of customers utilizing home energy assistance in the future, but can state that the residential rate design proposals set forth in the testimony of Company witness Vaughan are designed to reduce the bills of LIHEAP and electric heating customers as both of these segments of the residential class use more kWh on average than does the class as a whole.

Witness: Stephen D. Blankenship

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_036 Provide a reference to any application for a CPCN, or for cost recovery through surcharge or other mechanism, in which KPC has relied in any part on climate change as justification for Commission approval of utility-constructed or utility-purchased solar capacity.

RESPONSE

The Company has not yet sought a CPCN from the Commission for approval of any solar generating facility.

Witness: Alex E. Vaughan

Kentucky Power Company
KPSC Case No. 2020-00174
Joint Intervenors Second Set of Data Requests
Dated September 16, 2020

DATA REQUEST

JI_2_037 Company response to JI_1_046 states "there were 265,972 bills with a total of 243,427,590 kWh over 1,100 kWh/month during the months of December, January and February. The remaining bills during those months did not use in excess of 1,100 kWh." Please state the number of "remaining bills" that did not use in excess of 1,100 kWh? What is the high, low, median, and average usage was on those bills?

RESPONSE

169,495 residential bills during December, January, and February used less than 1,100 kWh/month. Those bills used a total of 97,230,305 kWh for an average usage of 574 kWh per bill. The Company has not performed the requested analysis for the high, low and median usage figures requested.

Witness: Alex E. Vaughan

KY Discovery Verification - Vaughan.docx

DocVerify ID:	818A33BD-1C6D-431A-BA9E-618C4BEFB95B
Created:	September 24, 2020 10:59:49 -8:00
Pages:	1
Remote Notary:	Yes / State: OH

This document is a DocVerify VeriVaulted protected version of the document named above. It was created by a notary or on the behalf of a notary, and it is also a DocVerify E-Sign document, which means this document was created for the purposes of Electronic Signatures and/or Electronic Notary. Tampered or altered documents can be easily verified and validated with the DocVerify veriCheck system. This remote online notarization involved the use of communication technology.

Go to www.docverify.com at any time to verify or validate the authenticity and integrity of this or any other DocVerify VeriVaulted document.

E-Signature Summary

E-Signature 1: Alex E Vaughan (AEV)
September 24, 2020 12:06:53 -8:00 [695DBC43E413] [167.239.2.88]
aevaughan@aep.com (Principal) (Personally Known)

E-Signature Notary: Brenda Williamson (BW)
September 24, 2020 12:06:53 -8:00 [ABA201A38BF6] [167.239.2.87]
bgwilliamson@aep.com
I, Brenda Williamson, did witness the participants named above electronically sign this document.

VERIFICATION

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is a Director-Regulatory Pricing & Renewables for American Electric Power Service Corporation that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Alex E Vaughan
Signed on 2020/09/24 12:06:53 -8:00
Alex E. Vaughan

STATE OF OHIO)
) Case No. 2020-00174
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by 09/24/2020 _____, this ____ day of September, 2020.

Brenda G Williamson
Signed on 2020/09/24 12:06:53 -8:00

NOTARY PUBLIC STATE OF OHIO

Brenda G. Williamson
Commission # 2016-RE-579446
Electronic Notary Public
State of Ohio
My Comm Exp. Apr 25, 2021

Notary Stamp 2020/09/24 12:06:53 PST ABA201A38BF6

VERIFICATION

The undersigned, Stephen D. Blankenship, being duly sworn, deposes and says he is a Region Support Manager for Kentucky Power Company that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Stephen D. Blankenship

COMMONWEALTH OF KENTUCKY)
) Case No. 2020-00174
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Stephen D. Blankenship, this 28 day of September 2020.

Trisha Nance
Notary Public

Notary ID Number: 632421

My Commission Expires: 9-26-2023

OFFICIAL SEAL
TRISHA NANCE
NOTARY PUBLIC - KENTUCKY
STATE-AT-LARGE
My Comm. Expires September 26, 2023
ID # 632421

VERIFICATION

The undersigned, Brian K. West, being duly sworn, deposes and says he is Director Regulatory Services for Kentucky Power Company that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Brian K. West

COMMONWEALTH OF KENTUCKY)
) Case No. 2020-00174
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Brian K. West, this 28th day of September, 2020.

Notary Public

Notary ID Number: 632421

My Commission Expires: 9-26-2023

OFFICIAL SEAL
TRISHA NANCE
NOTARY PUBLIC - KENTUCKY
STATE-AT-LARGE
My Comm. Expires September 26, 2023
ID # 632421

VERIFICATION

The undersigned, Cynthia G. Wiseman, being duly sworn, deposes and says she is the Vice President of External Affairs and Customer Service for Kentucky Power Company that she has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of her information, knowledge and belief after reasonable inquiry.

Cynthia G. Wiseman

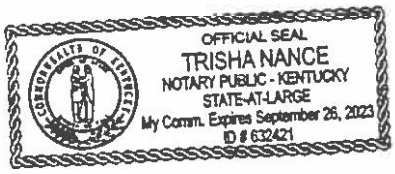
COMMONWEALTH OF KENTUCKY)
) Case No. 2020-00174
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Cynthia G. Wiseman, this 28 day of September 2020.

Trisha Nance
Notary Public

Notary ID Number: 632421

My Commission Expires: 9-26-2023



docVerify

Keaton_KY Discovery Verification.docx

DocVerify ID:	108FCD72-5FDC-433F-A9C9-6D5C19A6DBA1
Created:	September 23, 2020 13:15:26 -8:00
Pages:	1
Remote Notary:	Yes / State: OH

This document is a DocVerify VeriVaulted protected version of the document named above. It was created by a notary or on the behalf of a notary, and it is also a DocVerify E-Sign document, which means this document was created for the purposes of Electronic Signatures and/or Electronic Notary. Tampered or altered documents can be easily verified and validated with the DocVerify veriCheck system. This remote online notarization involved the use of communication technology.

Go to www.docverify.com at any time to verify or validate the authenticity and integrity of this or any other DocVerify VeriVaulted document.

E-Signature Summary

E-Signature 1: Allyson Keaton (AK)
September 24, 2020 10:41:53 -8:00 [C893489D0034] [167.239.2.88]
allysonkeaton@aol.com (Principal) (Personally Known)

E-Signature Notary: Sarah Smithhisler (SRS)
September 24, 2020 10:41:53 -8:00 [7178ECEAC86C] [167.239.221.80]
srsmithhisler@aep.com
I, Sarah Smithhisler, did witness the participants named above electronically sign this document.

VERIFICATION

The undersigned, Allyson M. Keaton, being duly sworn, deposes and says she is a Tax Analyst Principle for American Electric Power Service Corporation that she has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of her information, knowledge and belief after reasonable inquiry.

Signed on 2020/09/24 10:41:53 -8:00

Allyson M. Keaton

STATE OF OHIO)
) Case No. 2020-00174
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Allyson M. Keaton, this 24th day of September 2020.

NOTARY PUBLIC STATE OF OHIO

Sarah Smithhisler
Commission # 2019-RE-775042
Electronic Notary Public
State of Ohio
My Comm Exp. Apr 29, 2024

Notary Stamp 2020/09/24 10:41:53 PST 7178ECEAC86C

Signed on 2020/09/24 10:41:53 -8:00

Notary Public

Notary ID Number: 2019-RE-775042

VERIFICATION

The undersigned, Scott E. Bishop, being duly sworn, deposes and says he is a Regulatory Consultant Senior for Kentucky Power Company, that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Scott E. Bishop

COMMONWEALTH OF KENTUCKY)
) Case No. 2020-00174
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Scott E. Bishop, this 28 day of September 2020.

Trisha Nance
Notary Public

Notary ID Number: 632421

My Commission Expires: 9-26-2023

OFFICIAL SEAL
TRISHA NANCE
NOTARY PUBLIC - KENTUCKY
STATE-AT-LARGE
My Comm. Expires September 26, 2023
ID # 632421

VERIFICATION

The undersigned, Everett G. Phillips, being duly sworn, deposes and says he is Vice President of Distribution Region Operations for Kentucky Power Company that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief after reasonable inquiry.

Everett G. Phillips

COMMONWEALTH OF KENTUCKY)
) Case No. 2020-00174
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Everett G. Phillips, this 28 day of September 2020.

Notary Public

Notary ID Number: 632421

My Commission Expires: 9-26-2023

OFFICIAL SEAL
TRISHA NANCE
NOTARY PUBLIC - KENTUCKY
STATE-AT-LARGE
My Comm. Expires September 26, 2023
ID # 632421