

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 ACCOUNTING)	CASE NO.
PRACTICES TO ESTABLISH REGULATORY)	2020-00174
ASSETS AND LIABILITIES; (4) APPROVAL OF)	
A CERTIFICATE OF PUBLIC CONVENIENCE)	
AND NECESSITY; AND (5) ALL OTHER)	
REQUIRED APPROVALS AND RELIEF)	

**SUPPLEMENTAL DATA REQUESTS OF JOINT INTERVENORS MOUNTAIN ASSOCIATION,
KENTUCKIANS FOR THE COMMONWEALTH, AND KENTUCKY SOLAR ENERGY
SOCIETY TO KENTUCKY POWER COMPANY**

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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 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 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. "Company" or "KPC" means Kentucky Power Company and/or any of their officers, directors, employees, or agents who may have knowledge of the particular matter addressed, and affiliated companies including American Electric Power.

12. "Joint Intervenors" means the Mountain Association, Kentuckians For The Commonwealth, and Kentucky Solar Energy Society, who were granted the status of full joint intervention in this matter.

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 POWER COMPANY
BY JOINT INTERVENORS**

JI-SDR-#

Question JI-SDR-1

The National Standard Practice Manual for Benefit-Cost Analysis ("BCA") of Distributed Energy Resources ("DER"), (hereinafter "NSPM-DER") available at <https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/>, provides a comprehensive framework for cost-effectiveness assessment of distributed energy resources including distributed generation, distributed storage, demand response, and energy efficiency. The NSPM-DER also provides guidance on addressing multiple DERs and rate impacts and cost shifts.

- a. Is the Company aware of and familiar with the NSPM-DER?
- b. Did the Company review or rely upon the NSPM-DER in developing its proposal for a new net metering tariff? Please explain why or why not.

Question JI-SDR-2

The NSPM-DER sets out eight guiding principles for conducting BCA for DERs. Please indicate and explain in detail for each of these principles how the Company's process in developing a proposed compensation rate for net metered generation aligned with or differed from these best-practice NSPM-DER principles. Additionally, if the Company disagrees with a principle, explain in detail the basis for the disagreement.

a. Principle 1 - Treat DERs as a Utility System Resource

DERs are one of many energy resources that can be deployed to meet utility/power system needs. DERs should therefore be compared with other energy resources, including other DERs, using consistent methods and assumptions to avoid bias across resource investment decisions.

b. Principle 2 - Align with Policy Goals

Jurisdictions invest in or support energy resources to meet a variety of goals and objectives. The primary cost-effectiveness test should therefore reflect this intent by accounting for the jurisdiction's applicable policy goals and objectives.

c. Principle 3 - Ensure Symmetry

Asymmetrical treatment of benefits and costs associated with a resource can lead to a biased assessment of the resource. To avoid such bias, benefits and costs should be treated symmetrically for any given type of impact.

d. Principle 4 - Account for Relevant, Material Impacts

Cost-effectiveness tests should include all relevant (according to applicable policy goals), material impacts including those that are difficult to quantify or monetize.

e. Principle 5 - Conduct Forward-Looking, Long-term, Incremental Analyses

Cost-effectiveness analyses should be forward-looking, long-term, and incremental to what would have occurred absent the DER. This helps ensure that the resource in question is properly compared with alternatives.

f. Principle 6 - Avoid Double-Counting Impacts

Cost-effectiveness analyses present a risk of double-counting benefits and/or costs. All impacts should therefore be clearly defined and valued to avoid double-counting.

g. Principle 7 - Ensure Transparency

Transparency helps to ensure engagement and trust in the BCA process and decisions. BCA practices should therefore be transparent, where all relevant assumptions, methodologies, and results are clearly documented and available for stakeholder review and input.

h. Principle 8 - Conduct BCAs Separately from Rate Impact Analyses

Cost-effectiveness analyses answer fundamentally different questions from rate impact analyses, and therefore should be conducted separately from rate impact analyses.

Question JI-SDR-3

The NSPM-DER (referenced in Question 1-) sets out a five-step process for developing and conducting BCA for DERs. Please indicate and explain in detail for each of these steps how the Company's process in developing a proposed compensation rate for net metered generation aligned with or differed from these best-practice NSPM-DER process. Additionally, if the Company disagrees with any step in the process outlined in the NSPM-DER, explain in detail the basis for the disagreement.

a. STEP 1 - Articulate Applicable Policy Goals

Articulate the jurisdiction's applicable policy goals related to DERs.

b. STEP 2 - Include All Utility System Impacts

Identify and include the full range of utility system impacts in the primary test, and all BCA tests.

c. STEP 3 - Decide Which Non-Utility System Impacts to Include

Identify those non-utility system impacts to include in the primary test based on applicable policy goals identified in Step 1:

- Determine whether to include host customer impacts, low-income impacts, other fuel and water impacts, and/or societal impacts.

d. STEP 4 - Ensure that Benefits and Costs are Properly Addressed

Ensure that the impacts identified in Steps 2 and 3 are properly addressed, where:

- Benefits and costs are treated symmetrically.
- Relevant and material impacts are included, even if hard to quantify.
- Benefits and costs are not double counted.
- Benefits and costs are treated consistently across DER types.

e. STEP 5 - Establish Comprehensive, Transparent Documentation

Establish comprehensive, transparent documentation and reporting, whereby:

- The process used to determine the primary test is fully documented.
- Reporting requirements and/or use of templates for presenting assumptions and results are developed.

Question JI-SDR-4

The NSPM-DER (referenced in Question 1-) identifies the following electric utility system potential impacts. Please indicate and explain in detail for each, whether the Company evaluated and quantified these impacts over the life of an installed customer generation facility in developing its proposal for a new net metering tariff. Please provide copies of any and all such evaluation and quantification. If the company did not evaluate and quantify these impacts, please explain in detail why it did not do so.

- a.** Generation - Energy generation
- b.** Generation – Capacity
- c.** Generation - Environmental compliance
- d.** Generation - RPS/CES compliance
- e.** Generation - Market price effects
- f.** Generation - Ancillary services
- g.** Transmission - Transmission capacity
- h.** Transmission - Transmission system losses
- i.** Distribution - Distribution capacity
- j.** Distribution - Distribution system losses
- k.** Distribution - Distribution operations and maintenance
- m.** Distribution - Distribution voltage
- n.** General - Financial incentives
- o.** General - Program administration

- p. General - Utility performance incentives
- q. General - Credit and collection
- r. General – Risk
- s. General - Reliability
- t. General - Resilience

Question JI-SDR-5

The NSPM-DER (referenced in Question 1-) identifies the following host customer potential impacts. Please indicate and explain in detail for each, whether the Company evaluated and quantified these impacts over the life of an installed customer generation facility in developing its proposal for a new net metering tariff. Please provide copies of any and all such evaluation and quantification. If the company did not evaluate and quantify these impacts, please explain in detail why it did not do so.

- a. Host Customer - Host portion of DER costs
- b. Host Customer - Host transaction costs
- c. Host Customer - Interconnection fees
- d. Host Customer - Risk
- e. Host Customer - Reliability
- f. Host Customer - Resilience
- g. Host Customer - Tax incentives
- h. Host Customer - Non-energy impacts
- i. Host Customer - Low-income customer non-energy impacts

Question JI-SDR-6

The NSPM-DER (referenced in Question 1-) identifies the following societal potential impacts. Please indicate and explain in detail for each, whether the Company evaluated and quantified these impacts over the life of an installed customer generation facility in developing its proposal for a new net metering tariff. Please provide copies of any and all such evaluation and quantification. If the company did not evaluate and quantify these impacts, please explain in detail why it did not do so.

- a.** Societal - Resilience impacts beyond those experienced by utilities or host customers

- b.** Societal - Greenhouse gas emissions created by fossil-fueled energy resources

- c.** Societal - Other air emissions, solid waste, land, water, and other environmental impacts

- d.** Societal - Incremental economic development and job impacts

- e.** Societal - Health impacts, medical costs, and productivity affected by health

- f.** Societal - Poverty alleviation, environmental justice, and reduced home foreclosures

- g.** Societal - Energy imports and energy independence

Question JI-SDR-7

Please provide a detailed explanation and quantification of any intraclass subsidies and of any interclass subsidies that the Company alleges to result from the current net metering service tariff. Please explain:

- a.** How the alleged cross subsidy has been measured.

- b.** Whether measurements have been taken for some or all net metering customers, the duration and frequency of measurement, and other factors impacting the quantification of the alleged cross subsidy.
- c.** The academic, professional, technical, and any other basis for the assertion that cross subsidies exist or occur, within a class or among classes of customers, under net metering.
- d.** The alleged magnitude of the alleged subsidy on non-participating customers, per customer, per year, and per future projected year resulting from the alleged cross subsidy.

Question JI-SDR-8

Please explain whether the Company views net metering customers as wholesale generators that generate exported or injected energy as energy sold for resale. If so, explain why. If not, explain why not. How does the Company's characterization of net metering customers impact the Company's identification and characterization of revenue impacts and just compensation for exports?

Question JI-SDR-9

Please document and quantify the extent and amount to which exported or injected energy from net metering customers must be transported:

- a.** By the distribution system
- b.** By the transmission system

Please explain and provide documentation, including metering data, for the responses to "a." and "b."

Question JI-SDR-10

Please explain how and when netting occurs under the Company's proposed new net metering tariff. Does netting occur instantaneously or over a billing cycle, or otherwise?

Question JI-SDR-11

Please explain and document the extent to which Advanced Metering Infrastructure capabilities and interval data have been used by the Company in designing the proposed net metering tariff.

Question JI-SDR-12

Please explain and document the extent to which Advanced Metering Infrastructure capabilities and interval data can be used by the Company in improving the precision and accuracy of the proposed net metering tariff.

Question JI-SDR-13

Please explain whether the Company has performed an analysis of and data collection for net metering customers that documents the differences and similarities between net metering customers in the following categories:

- a. Gross consumption of energy, including time and date of consumption
- b. Net consumption of energy, including time and date of consumption
- c. Coincidence of gross consumption with system peak hours (hours above average demand both before and after the specific peak hour)
- d. Coincidence of gross consumption with class peak hours (hours above average demand both before and after the specific peak hour)
- e. Coincidence of net consumption with system peak hours (hours above average demand both before and after the specific peak hour)
- f. Coincidence of net consumption with system peak hours (hours above average demand both before and after the specific peak hour)

- g.** Gross production of energy, including time and date of consumption
- h.** Net production of energy, including time and date of consumption
- i.** Coincidence of gross production with system peak hours (hours above average demand both before and after the specific peak hour)
- j.** Coincidence of gross production with class peak hours (hours above average demand both before and after the specific peak hour)
- k.** Coincidence of net production with system peak hours (hours above average demand both before and after the specific peak hour)
- l.** Coincidence of net production with system peak hours (hours above average demand both before and after the specific peak hour)
- m.** Coincidence of exported or injected production with system peak hours (hours above average demand both before and after the specific peak hour)
- n.** Coincidence of exported or injected production with class peak hours (hours above average demand both before and after the specific peak hour)

Question JI-SDR-14

As regards to responses in the previous question (Question 1-), please explain the Company's justification for proposing a single net metering compensation rate for all net metering customers despite difference between customers on each of the metrics/factors listed in the question.

Question JI-SDR-15

Please explain whether or why not the Company has conducted any analysis of net metering customers as to whether and by how much the cost to serve those customers differs from other customers within the same class or from the net metering customer's cost of service prior to the installation and operation of distributed generation.

Question JI-SDR-16

Please describe all conversations and provide copies of all communications between and among utilities, including (but not limited to) KPC, LGE, and KU relating to approaches and methods for quantifying net metering compensation value and/or designing and proposing net metering tariff designs.

Question JI-SDR-17

In light of the Commission's Order in Case No. 2020-00174 (pp.84-85) please explain the Company's position on the role that cost of service data and analysis can and should play in informing net metering compensation and tariff design.

Respectfully submitted,



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CERTIFICATE OF SERVICE

This is to certify that the electronic version of the foregoing is a true and accurate copy of the same document that will be filed in paper medium; that the electronic filing has been transmitted to the Commission on February 12, 2021; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that in accordance with the March 16, 2020 Commission Order in Case No. 2020-00085 an original and ten copies in paper medium of this *Statement Regarding Receipt of Electronic Transmissions* will not be mailed until after the lifting of the current state of emergency.



Tom FitzGerald