COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF)	
KENTUCKY UTILITIES COMPANY FOR AN) CASE NO. 2020-0034	9
ADJUSTMENT OF ITS ELECTRIC RATES, A)	
CERTIFICATE OF PUBLIC CONVENIENCE)	
AND NECESSITY TO DEPLOY ADVANCED)	
METERING INFRASTRUCTURE,)	
APPROVAL OF CERTAIN REGULATORY)	
AND ACCOUNTING TREATMENTS, AND)	
ESTABLISHMENT OF A ONE-YEAR)	
SURCREDIT)	

In the Matter of:

ELECTRONIC APPLICATION OF)
LOUISVILLE GAS AND ELECTRIC) CASE NO. 2020-00350
COMPANY FOR AN ADJUSTMENT OF ITS)
ELECTRIC AND GAS RATES, A)
CERTIFICATE OF PUBLIC CONVENIENCE)
AND NECESSITY TO DEPLOY ADVANCED)
METERING INFRASTRUCTURE,)
APPROVAL OF CERTAIN REGULATORY)
AND ACCOUNTING TREATMENTS, AND)
ESTABLISHMENT OF A ONE-YEAR)
SURCREDIT)

JOINT DATA REQUESTS OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY PROPOUNDED TO KENTUCKY SOLAR INDUSTRIES ASSOCIATION, INC.

Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") (collectively, "the Companies") respectfully submit the following data requests to the Kentucky Solar Industries Association, Inc. ("KYSIA") to be answered by the date specified in the procedural schedule established by the Kentucky Public Service Commission ("Commission") in this matter on December 9, 2020.

Instructions

1. As used herein, "Documents" include all correspondence, memoranda, notes, email, maps, drawings, surveys or other written or recorded materials, whether external or internal, of every kind or description in the possession of, or accessible to, KYSIA, its witnesses, or its counsel.

2. Please identify by name, title, position, and responsibility the person or persons answering each of these data requests.

3. These requests shall be deemed continuing so as to require further and supplemental responses if KYSIA receives or generates additional information within the scope of these requests between the time of the response and the time of any hearing conducted herein.

4. To the extent that the specific document, work paper, or information as requested does not exist, but a similar document, work paper, or information does exist, provide the similar document, work paper, or information.

5. To the extent that any request may be answered by a computer printout, spreadsheet, or other form of electronic media, please identify each variable contained in the document or file that would not be self-evident to a person not familiar with the document or file.

6. If KYSIA objects to any request on the ground that the requested information is proprietary in nature, or for any other reason, please notify the undersigned counsel as soon as possible.

7. For any document withheld on the ground of privilege, state the following: date; author; addressee; indicated or blind copies; all persons to whom distributed, shown or explained; and the nature and legal basis for the privilege asserted.

8. In the event any document requested has been destroyed or transferred beyond the control of KYSIA, its counsel, or its witnesses, state: the identity of the person by whom it was

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destroyed or transferred and the person authorizing the destruction or transfer; the time, place and method of destruction or transfer; and the reason(s) for its destruction or transfer. If such a document was destroyed or transferred by reason of a document retention policy, describe in detail the document retention policy.

9. If a document responsive to a request is a matter of public record, please produce a copy of the document rather than a reference to the record where the document is located.

Data Requests

Justin R. Barnes

- 1. Provide copies of all electronic files in native format with formulas intact used in your analysis. This includes copies of all workpapers supporting your testimony, analyses, and conclusions.
- 2. Provide pdf copies of the following articles or publications listed by Justin R. Barnes in his curriculum vitae attached as Exhibit JRB-1 to his direct testimony in this proceeding:
 - a. Barnes, J., Barnes, C., 2013 RPS Legislation Gauging the Impacts, December 2013.
 - b. Barnes, J., Solar for Everyone? 2012.
 - c. Barnes, J. SREC Market: The Murky Side of Solar, 2012.
 - d. Barnes, J., Varnado, L., The Intersection of Net Metering and Retail Choice: an overview of policy, practice, and issues, 2010.
- 3. Provide pdf copies of all testimonies submitted by Justin R. Barnes in the following regulatory proceedings identified in his curriculum vitae attached as Exhibit JRB-1 to his direct testimony in this proceeding:
 - a. South Carolina Public Service Commission, Docket No. 2019-182-E.
 - b. Virginia State Corporation Commission, Docket No. PUR-2020-00015.
 - c. North Carolina Utilities Commission, Docket No. E-7, Sub 1219.
 - d. South Carolina Public Service Commission, Docket No. 2018-318-E,
 - e. South Carolina Public Service Commission, Docket No. 2018-319-E.
 - f. New Orleans City Council, Docket No. UD-18-07.
 - g. North Carolina Utilities Commission, Docket No. E-7, Sub 1146.
 - h. Ohio Public Utilities Commission, Docket No. 17-1263-EL-SSO, provide copy of final testimony that was prepared but not filed.
 - i. North Carolina Utilities Commission, Docket No. E-2, Sub 1142
 - j. Public Utilities Commission of Texas, Control No. 46831.
 - k. Utah Public Service Commission, Docket No. 14-035-114.

- 1. Colorado Public Utilities Commission, Proceeding No. 16A-0055E.
- m. Public Utility Commission of Texas, Control No. 44941
- n. Oklahoma Corporation Commission, Cause No. PUD 201500271
- o. South Carolina Public Service Commission, Docket No. 2015-55-E.
- p. South Carolina Public Service Commission, Docket No. 2014-246-E.
- 4. On page 9 of Mr. Barnes's Direct Testimony in these proceedings, he references an Order by the North Carolina Utilities Commission in Docket No E-100, Sub 158. In reference to this docket:
 - a. Provide the hedging value in cents per kWh that Duke Energy Carolinas, LLC and Duke Energy Progress, LLC ("Duke Energy") proposed to eliminate in the proceeding.
 - b. Provide a detailed description of how the hedging value approved in Docket No. E-100, Sub 140, was calculated.
 - c. Provide a complete detailed description of Duke Energy's financial hedging practices for fuels.
- 5. On page 9 of Mr. Barnes's Direct Testimony in these proceedings, he references an Order by the North Carolina Utilities Commission in Docket No E-100, Sub 158, in which a "hedging value" was calculated. Provide a detailed description of the methodology, along with mathematical formulas, used in North Carolina to calculate the hedging value. Provide all descriptions all input values to the mathematical formula.
- 6. Provide the normal frequency that QF rates are updated in North Carolina. Provide documentation supporting the response.
- 7. Provide a side-by-side comparison of Duke Energy's current generation mix and LG&E/KU's current generation mix, showing both MW of capacity and percent of total capacity by generation type.
- 8. On page 9 of Mr. Barnes's Direct Testimony in these proceedings, he references an Order by the North Carolina Utilities Commission in Docket No E-100, Sub 158, in which a "hedging value" was calculated. Using LG&E and KU's generation mix, calculate the current hedging value for the Companies using the methodology prescribed for Duke Energy. Provide all source documents supporting the inputs to the calculation, including each fuel cost, interest rates, etc., with all formulas intact and cells unlocked.

- 9. Identify each regulatory jurisdiction that has required the inclusion of a "hedging value" for purchase rates for small qualifying facilities. Also provide docket number and a copy of the commission order requiring the hedging value.
- 10. Provide the MW capacity and annual MWH output of the three largest QF customers served by Duke Energy Carolinas.
- 11. On page 9 of Mr. Barnes's Direct Testimony in these proceedings, he states that "avoided cost is typically not controversial." Provide the following in reference to this statement:
 - a. Please identify each jurisdiction to which Mr. Barnes is referring to in making this statement.
 - b. For each such jurisdiction, provide support in the form of a Commission order or utility calculation of avoided costs that demonstrates that line losses are included in the calculation of avoided energy costs.
- 12. Provide a detailed list of and estimate in cents per kWh for each long-term value provided by customer-generators on KU and LG&E's systems for the energy they flow to the grid. Also, provide a detailed description of each value provided by customer-customer generators, as well as all workpapers supporting the dollar estimate of the value in cents per kWh.
- 13. On page 22, lines 10-14, of Mr. Barnes's Direct Testimony in these proceeding, he states, "The effectiveness of my recommendation that avoided capacity costs be 'tethered' to the integrated resource planning process is contingent on the Commission not permitting LG&E or any other utility to engineer circumstances that allow it to evade the purpose of tethering, given that the obligation to offer payment for capacity is ties to a utility's relative resource sufficiency or deficiency." Then on page 22, line 19 of his testimony he gives "determining a plant retirement date" as an example of an "evasion" of "tethering."
 - a. Please explain whether it is Mr. Barnes's position or opinion that LG&E and KU's retirement dates of Mill Creek Units 1 and 2 and E.W. Brown Unit 3 are merely attempts to "engineer circumstances" to avoid higher LQF charges. If so, provide all documents or other evidence of such "engineering." If not, then explain the relevance of this particular example of an attempt to "engineer circumstances."
 - b. Provide copies of all environmental documents, decrees, laws, etc. related to Mill Creek Units 1 and 2 and E. W. Brown Unit 3 that Mr. Barnes reviewed prior to reaching his apparent conclusion or suggestion that KU and LG&E are "engineering" the retirement dates of these units.
- 14. Provide Mr. Barnes's calculation of avoided capacity costs for LQF if the retirement dates of Mill Creek Units 1 and 2 and E. W. Brown Unit 3 are moved forward.

Benjamin D. Inskeep

- 15. Provide copies of all electronic files in native format with formulas intact used in your analysis. This includes copies of all workpapers supporting your testimony, analyses, and conclusions.
- 16. Provide pdf copies of the following articles or publications listed by Benjamin D. Inskeep in his curriculum vitae attached as Exhibit BDI-1 to his direct testimony in this proceeding:
 - a. Inskeep, B., States Charting Paths to 100% Targets, March 15, 2019.
 - b. Inskeep, B., The 50 States of Solar, February 2015, April 2015, August 2015, November 2015, and February 2016.
 - c. Inskeep, B., et al., Utility Ownership of Rooftop Solar PV, November 2015.
 - d. Inskeep, B., and A. Shrestha, Comparing Subsidies for Conventional and Renewable Energy, March 2015.
 - e. Daniel, K., B. Inskeep et al., In-State RPS Requirements, November 2014.
- 17. Please provide a detailed description of Mr. Inskeep's experience performing electric cost of service studies. In this regard, provide the following:
 - a. List each electric utility for which Mr. Inskeep has performed a cost-ofservice study. For each such utility, provide the test period of the cost-ofservice study, the party for whom Mr. Inskeep conducted the cost of service study, the regulatory jurisdiction in which the utility provides service, and the case or docket number as applicable to the cost-of-service study performed by Mr. Inskeep.
 - b. For each cost of service performed by Mr. Inskeep, describe the methodology used to allocate production fixed costs and purchased power costs.
- 18. Please identify each and every regulatory proceeding in which Mr. Inskeep has testified, including jurisdiction, regulatory authority before whom he appeared, name or style of the proceeding, and the case or docket number of the proceeding.
- 19. On page 8, line 20, of Mr. Inskeep's Direct Testimony, he refers to the "Bonbright principles" that "govern the broader ratemaking process." With reference to the "Bonbright principles," please provide the following:
 - a. Provide the specific pages from Bonbright's text that identify the specific principles that should be used.

- b. Please list each Bonbright principle, providing a page reference to Bonbright's text listing the principle.
- 20. On page 8 of his testimony, Mr. Inskeep discusses the use of "cost benefit analysis" in the evaluation of subsidies. In this regard:
 - a. Provide a detailed description of Mr. Inskeep's experience performing cost-benefit analysis in the context of electric utilities.
 - b. Please provide copies of each cost benefit analyses performed by Mr. Inskeep along with the name of the utility or entity for whom Mr. Inskeep performed the cost-benefit analysis, the regulatory jurisdiction in which the utility or entity operates, and the case or docket number as applicable to the cost benefit analysis performed by Mr. Inskeep.
 - c. A description of the methodologies used in the cost-benefit analyses performed by Mr. Inskeep.
- 21. Please indicate whether Mr. Inskeep or his associates performed a cost-benefit analysis to calculate a value of energy that KU and LG&E's customer-generators supply to the grid. If so, provide all such analysis performed by Mr. Inskeep or his associates, including all Excel spreadsheets or other files or documents.
- 22. Provide a detailed description of Mr. Inskeep's experience conducting load research for electric utilities. In this regard, provide the following:
 - a. Identify the electric utilities and clients for which Mr. Inskeep has conducted load research.
 - b. Provide all reports and analyses prepared by Mr. Inskeep in regard to the load research studies he has performed.
- 23. Please provide the level of accuracy that Mr. Inskeep believes should be achieved for a load research sample.
- 24. Based on Mr. Inskeep's experience conducting load research studies for electric utilities, has he determined whether net metering customers have approximately the same, higher, or lower load factors? Provide all load research data analyzed by Mr. Inskeep to reach his conclusion. With respect to this question, load factor refers to both coincident peak load factors and non-coincident peak load factors.
- 25. On page 14 of his testimony, Mr. Inskeep references Oklahoma Corporation Commission, Docket No. PUD 101500273.
 - a. Please indicate whether Mr. Inskeep testified in that proceeding.
 - b. Please indicate whether Mr. Inskeep provided any analysis of support to any party in that proceeding.

- 26. On page 15, line 8 of Mr. Inskeep's testimony he refers to a "total resource cost framework." Regarding this reference, please provide the following:
 - a. Please confirm whether "total resource cost framework" refers to the "total resource costs" as defined by the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects ("California Manual").
 - b. If "total resource cost framework" does not refer to the methodology described in the California Manual, please define "total resource cost framework" and provide a copy of the sources used to define the framework as referenced by Mr. Inskeep.
 - c. Provide a detailed list of all costs that Mr. Inskeep considers to be "total resource costs."
- 27. Please provide a detailed description of the review that Mr. Inskeep performed of the cost-of-service studies submitted by KU and LG&E in these proceedings.
- 28. On page 17 of Mr. Inskeep's testimony, he states that "few jurisdictions have adopted major changes to net metering or established net metering successor tariffs without requiring one or both." In regard to this statement, provide the following:
 - a. Identify each utility that adopted changes to net metering based on an evaluation of a cost-of-service study. Also provide the docket number and date of the order.
 - b. Identify each utility that adopted changes to net metering based on evaluation of a cost benefit analysis. Also provide the docket number and date of the order.
 - c. Identify each utility that adopted changes to net metering based on neither a cost-of-service study nor a cost benefit analysis. Also provide the docket number and date of the order.
 - d. Identify each utility that established a successor tariff. Also provide the docket number and date of the order.
 - e. Identify each utility that established a successor tariff based on an evaluation of a cost-of-service study. Also provide the docket number and date of the order.
 - f. Identify each utility that established a successor tariff based on evaluation of a cost benefit analysis. Also provide the docket number and date of the order.

- g. Identify each utility that established a successor tariff based on neither a cost-of-service study nor a cost benefit analysis. Also provide the docket number and date of the order.
- 29. On page 17 of Mr. Inskeep's testimony, he states that "[a] cost of service analysis is more commonly used in ratemaking proceedings where specific revisions to DG customer purchase or compensation rates are being proposed."
 - a. Please provide a list of all cases, dockets, or instances in which a cost of service analysis is used in a ratemaking proceeding where specific revision to DG customer purchase or compensation rates are being proposed.
 - b. Please provide all empirical data supporting Mr. Inskeep's claim that this approach is more commonly used in those instances.
- 30. On page 17 of Mr. Inskeep's testimony, he states that, "Typically, benefit-cost analyses have been performed by consultants with subject matter expertise at the request of legislators or regulators."
 - a. Please provide a list of all cases, dockets, or instances in which benefit-cost analyses have been performed by consultants with subject matter expertise at the request of legislators or regulators.
 - b. Please provide all empirical data supporting Mr. Inskeep's claim that this approach is more typically used in those instances.
- 31. Provide a detailed list of and estimate in cents per kWh for each long-term value provided by customer-generators on KU and LG&E's systems for the energy they flow to the grid. Also, provide a detailed description of each value provided by customer-customer generators, as well as all workpapers supporting the dollar estimate of the value in cents per kWh.
- 32. On page 28 of Mr. Inskeep's testimony, he identifies energy-related costs of \$131,381,848 for the residential class. Please provide the following information regarding this amount:
 - a. Please indicate whether Mr. Inskeep attempted to derive this cost from the Company's cost of service study? If not, please explain why he did not perform such an analysis. If he did, provide a copy of Mr. Inskeep's analysis.
 - b. Provide a breakdown of each individual operation and maintenance expense from the Company's cost of service study included in amount.
 - c. A breakdown of each individual rate base component from the Company's cost of service included in the amount.

- d. Please provide a detailed explanation of whether these costs represent "avoided energy costs?"
- e. If these costs do not represent avoided energy costs, then provide a detailed explanation of what they do represent.
- 33. In a Benefit-Cost Analysis of distributed energy resources (DERs), please provide a detailed explanation of the considerations, if any, that should be given to the loss or displacement of coal mining jobs in Kentucky with the implementation of DERs.
- 34. Please provide a citation to the legal authority (i.e., regulatory commission order, statute, or regulation) for each entry in Exhibits BDI-3 and BDI-4 to the testimony of Benjamin Inskeep.

Dated: March 19, 2021

Respectfully submitted,

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Counsel for Kentucky Utilities Company and Louisville Gas and Electric Company

CERTIFICATE OF COMPLIANCE

In accordance with 807 KAR 5:001 Section 8(7), this is to certify that Kentucky Utilities Company's and Louisville Gas and Electric Company's March 19, 2021 electronic filing is a true and accurate copy of the documents being filed in paper medium; that the electronic filing has been transmitted to the Commission on March 19, 2021; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that a true and correct copy in paper medium will be delivered to the Commission within 30 days of the lifting of the State of Emergency.

Counsel for Kentucky Utilities Company and Louisville Gas and Electric Company