

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

|                                      |   |            |
|--------------------------------------|---|------------|
| ELECTRONIC APPLICATION OF LOUISVILLE | ) |            |
| GAS AND ELECTRIC COMPANY FOR AN      | ) |            |
| ADJUSTMENT OF ITS RATES FOR ELECTRIC | ) |            |
| AND GAS SERVICE, A CERTIFICATE OF    | ) |            |
| PUBLIC CONVENIENCE AND NECESSITY TO  | ) |            |
| DEPLOY ADVANCED METERING             | ) | CASE NO.   |
| INFRASTRUCTURE, APPROVAL OF CERTAIN  | ) | 2020-00349 |
| REGULATORY AND ACCOUNTING            | ) |            |
| TREATMENTS, AND ESTABLISHMENT OF A   | ) |            |
| ONE-YEAR SURCREDIT                   | ) |            |

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

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Dated: January 8, 2021

## **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 "KU" means Kentucky Utilities Company and/or any of their officers, directors, employees or agents who may have knowledge of the particular matter addressed, and affiliated companies including Pennsylvania Power and Light.

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.

**FIRST SET OF DATA REQUESTS PROPOUNDED TO KENTUCKY UTILITIES COMPANY (KU) BY JOINT INTERVENORS**

KU\_JI\_Data\_Request\_1

**Question 1-1**

Please provide the following information regarding the Company's NMS-1 customer-generators, for each year from 2015 through 2020. For all requests that result in a data response, please provide the data in Excel spreadsheet format with formulas intact and cells unlocked.

- a. For each month and year, how many kWh of excess generation ("Received" or "Rcvd" kWh) were supplied back to the Company from all NMS customers? How many kWh were consumed ("Delivered" or Dlvd") by all NMS customers? Provide the aggregate amount for each month and year of total delivered "Dlvd" kWh and received "Rcvd" kWh by rate class.
- b. List the number of residential and commercial customers taking NMS service. List the number within each specific rate class tariff.
- c. List the total installed generation capacity (AC and DC) for customers receiving NMS within each specific rate class tariff.
- d. For each NMS customer, please list the capacity (system size in KW) of their Distributed Generation System, the technology type (e.g. PV, wind, hydro, biomass), the date of interconnected operation, and their rate class. List the total amount of kWh Delivered and Received from each NMS customer in each month.

- e. What was the total combined capacity by rate class of all NMS customers, residential NMS customers, and commercial NMS customers for each year?
- f. What percentage of the Company's single hour peak load for the previous year did NMS represent for each year?
- g. Please provide any additional data concerning net metering or generation from NMS customers for the years 2015 through 2020 which the Company has reported to the US Energy Information Administration, FERC, the Kentucky Energy and Environment Cabinet, or any other regulatory agency. This would include but not be limited to data filed on Form EIA-861.
- h. For each NMS customer, please provide the monthly and annual energy consumption data for the year prior to the interconnected operation of the customer generation system. If this data is not available, please explain why not.

### **Question 1-2**

What is the Company's projection for how NMS customer cumulative capacity would expand through 2025 under two scenarios: (1) If the NMS tariff remained in its current form with 1 for 1 netting at the retail rate, and (2) Under the proposed NMS-2 tariff? Please represent this in terms of cumulative capacity (KW) and percent of the Company's single hour peak load for the previous year. Please provide a detailed explanation and copies of all analysis or studies supporting the Company's projections.

- a. Under each scenario, when does the company project the aggregate capacity of NMS customers would reach 1% of the Company's single hour peak load for the previous year? Please provide a detailed explanation and copies of all analysis or studies supporting the Company's projection.

### **Question 1-3**

Explain how each surcharge will be handled for NMS-2 customers? Will those surcharges that are based on kWh usage be treated as they are with NMS-1 now (i.e. based on the net kWh in a billing cycle)? With NMS-2, will monthly net excess kWh carry forward to offset future billing cycle surcharges as is done under NMS-1 now?

### **Question 1-4**

Explain how customer-generators who are grandfathered under NMS-1 would be served under the following situations after NMS-2 takes effect:

- a. If the customer-generator decides to increase the capacity of their generator after NMS-2 takes effect, will the compensatory rate for excess generation from the customer-generator be changed, and if so, will that change affect all existing capacity or only that fraction attributable to the expanded capacity?
- b. If a grandfathered customer-generator taking service under NMS-1 replaces a failed solar module with a newer solar module of the same capacity, would they remain grandfathered under NMS-1? If not, why not? What if the new solar module has a larger capacity than the older module being replaced?
- c. Please identify proposed changes to tariff language intended to reflect the changes described in responses to 1-4.a. and 1-4.b.

#### **Question 1-5**

For each rate class with customer demand charges, list, by rate class, the percentage of fixed costs assigned to that rate class that are recovered through the demand charges within that rate class. Please provide references to the cost of service study where these fixed costs are reflected.

#### **Question 1-6**

Define how customers taking NMS-2 that also are taking a T.O.D. service would be billed.

#### **Question 1-7**

Provide a breakdown by category of each component of costs included in the Company's avoided cost calculations, and the methodology and data on which the cost was calculated and assigned.

#### **Question 1-8**

The [Final Net Metering-Interconnection Guidelines](#) that came out of PSC Administrative Case [2008-0169](#) addressed aspects that utilities raised at the time concerning cost-recovery. In those very detailed 23-page Guidelines, is included (condition 2—generation capacity will not exceed transformer nameplate rating on shared secondary and condition 1—on

a distribution circuit, the aggregated generation on that circuit, including the proposed will not exceed 15 percent of the Line Section's most recent annual one hour load).

- a. Do you agree that Condition 1 was included to prevent a distributed net metering service generator from supplying transmission through a substation and limiting the resource to within the line section distribution circuit only?
- b. What potential costs for monitoring and technology, e.g. back-flow preventers, are avoided by Condition 2 and Condition 1 guidelines?

**Question 1-9**

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 NMS) to the point of use?

**Question 1-10**

Explain the methodology for accounting for "Distribution losses" that were included in the avoided cost rate proposed for NMS-2. Does the methodology used by the Company account for variations in losses associated with variation in load level? Please explain.

**Question 1-11**

Provide the justification for the Company's proposal to maintain an avoided cost compensation rate for excess energy that is generated by distributed solar during on-peak hours when the Company's cost of generation is much higher than off-peak hours?

**Question 1-12**

Provide a detailed breakdown of the full cost for developing and administering the new NMS-2 tariff, including but not limited to legal and consultant fees and staff time for development; monies spent advocating for the NMS-2 tariff at the PSC; and the Company's costs for participating in the PSC Administrative Case 2019-00256, concerning net metering

- a. Explain whether this rate request seeks cost recovery for lobbying and other legislative expenses associated with SB 100.

### **Question 1-13**

What was the Company's load profile for each of the last two years, expressed in 15-minute intervals? Provide a breakdown of how the Company's cost of power changes over the course of each day for each month of the year? What is the Company's cost of power during peak demand times for each month (including all energy, demand, and transmission charges)? Identify what resources the Company uses to meet demand during times of peak demand? Identify the Company's costs for power and energy during on peak and off-peak times each month.

**Question 1-14** In determining the rate for crediting NMS-2 customers for excess generation, how do avoided demand and transmission costs factor into the Company's calculations and what value is assigned to each?

### **Question 1-15**

In the final order of case 2019-00256, dated December 18, 2019, the Commission announced an intention to initiate a proceeding to update the Interconnection Guidelines as one of "immediately in conjunction with implementing the Net Metering Act." (p. 34).

- a. Would the Company be willing to defer Commission consideration of the proposed NMS-2 tariff pending updates to these guidelines?

### **Question 1-16**

Please produce utility-specific data that substantiates any claim of non-negligible cost shifting from the current NMS-1 customers to non-net metered rate payers. Please provide the dollar amount that the Company believes a non-participating net metered customer pays, on a monthly and yearly basis, due to service being provided to the NMS-1 customers under the current tariff. Assuming that the number of NMS-1 customers under the current tariff rose to the 1% statutory cap, what would the dollar amount that a non-participating customer pays, on a monthly and yearly basis, due to service being provided to the NMS-1 customers under the current tariff.

### **Question 1-17**

If a customer investing in solar submits a net metering application for NMS service before the NMS-2 service tariff is approved, but due to weather or

other contingencies the system is not “operational” before NMS-2 service takes effect, would they be served under NMS-1 or NMS-2?

**Question 1-18**

Please provide a comprehensive tabulation of all costs and allocation of costs associated with the following activities, for each of the years 2011-2020:

- a. Trade association dues to and staff time spent on activities conducted by any organization developing or taking any position on net metering rate design, rate design in general, or conducting studies or issuing reports on net metering rate design and rate design in general.
- b. Lobbying and regulatory affairs advocacy and communications relating to net metering rate design, non-utility generation, and related topics; and other utility-related topics.
- c. Economic development rates and incentives.
- d. Storm and extreme-weather damage prevention and response.

**Question 1-19**

The National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources (“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 rely upon the NSPM-DER in developing its proposal for a new net metering tariff? Please explain why or why not.

**Question 1-20**

The NSPM-DER (referenced in Question 1-19) identifies the following electric utility system potential impacts. Please indicate and explain in

detail for each whether the Company evaluated and quantified these impacts, and if not, why not, over the life of an installed customer generation facility, in developing its proposal for a new net metering tariff, and provide copies of any and all such evaluation and quantification:

- 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
- l. Distribution - Distribution voltage
- m. General - Financial incentives
- n. General - Program administration
- o. General - Utility performance incentives
- p. General - Credit and collection
- q. General - Risk
- r. General - Reliability
- s. General - Resilience

### **Question 1-21**

The NSPM-DER (referenced in Question 1-19) identifies the following host customer potential impacts. Please indicate and explain in detail for each whether the Company evaluated and quantified these impacts, and if not, why not, over the life of an installed customer generation facility, in developing its proposal for a new net metering tariff, and provide copies of any and all such evaluation and quantification:

- 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 1-22**

The NSPM-DER (referenced in Question 1-19) identifies the following societal potential impacts. Please indicate and explain in detail for each whether the Company evaluated and quantified these impacts, and if not, why not, over the life of an installed customer generation facility, in developing its proposal for a new net metering tariff, and provide copies of any and all such evaluation and quantification:

- 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 1-23**

Mr. Seycle, at p. 46, (p. 50 of pdf 13-KU\_Testimony 4 of 4) quotes the recent net metering law, stating that the law will allow each electric utility to implement rates to recover from new net metering customers all costs necessary to serve its eligible customer generators, including but not limited to fixed and demand-based costs". Have the companies quantified the fixed and demand-based costs necessary to serve solar customers?

### **Question 1-24**

Has the Company performed cost of service analysis on net metering customers? Please explain whether and how net metering customers cost more or less to serve than non-net metering customers. If the Company has not performed cost of service analysis on net metering customers, how has the Company determined that its proposed net metering tariff changes adhere to the principle of cost causation, i.e. that customers are fairly allocated the costs to serve them. Please provide copies of any and all such studies.

### **Question 1-25**

Please provide a technical and economic description and accounting for the impacts and effects of energy exported from customer generator

facilities. Please confirm whether or not exported energy serves nearby unserved load. Please confirm whether such service results in metered charges for service of such load. Please detail all measured and metered costs associated with the distribution system receiving injected or exported energy from net metered facilities.

**Question 1-26**

Please detail all hosting capacity studies and the hosting capacity status of the distribution system.

**Question 1-27**

Has the Company prepared or commissioned any marginal cost of service studies for its distribution system? Please provide copies of any and all such studies. If it has not, please explain why not.

**Question 1-28**

Please explain in detail whether any functionality and capabilities that will be provided by the deployment of AMI and the increase in collected and available data regarding customer usage will enable or improve the Company's understanding of the impacts of customer generation as listed in Questions 1-20 through 1-22. If the AMI data will enable or improve understanding of such impacts, how does the Company intend to incorporate such understanding in its net metering tariff and proposed net metering tariff?

**Question 1-29**

Referring to Mr. Seelye's testimony (p.75 of "13-KU\_Testimony\_4of4(Seelye)"/ p. 79 of pdf) and Exhibit WSS-11 (pdf pg.202), regarding the optional Electric Vehicle Supply Equipment Rider (EVSE-R), clarify all charges the participating customer would be responsible for, including fixed and variable charges.

- a. Explain what the "Distribution Energy per kWh per month" charge of \$52.00 represents.
- b. Provide an example monthly bill for a customer taking EVSE service and taking EVSE-R service. For purposes of the example, assume the customer drives 500 miles per month using a 2020 Nissan LEAF and recharges for all driving at home using the Company-provided EVSE charger. Furthermore, assume the customer's

electric usage excluding EV charging is 1000 kWh per month. Show all calculations, formulas, and inputs used to determine the customer bill.

- c. Clarify whether a customer using the EVSE or EVSE-R rates will be charged \$52.00 per month for Distribution Energy PLUS a per-kWh charge for all electricity consumed by the EV charger. What will be the rate charged to the customer for kWh used for EV charging? Explain why it is reasonable to bill these customers twice for energy consumed for EV charging, if that is the effect of the EVSE and EVSE-R tariff.
- d. Provide all calculations to justify the fixed rate proposed for EVSE and EVSE-R tariffs. Include the Company's estimate for energy consumed by the EVSE charger each month. Justify the basis for these estimates.
- e. Clarify the difference between rates EVSE and EVSE-R from the customer's perspective, including but not limited to what the customer receives from Company and the costs to the customer.
- f. Do customers taking service under the EVSE and EVSE-R tariffs pay the annual O&M charge? If yes, how is that fee charged to the customer? If no, does the Company absorb the O&M charge or is it paid by non-participating customers? Provide all data and calculations used to determine the O&M charge and any evidence which indicates the reasonableness of each EVSE charger requiring \$126 of annual O&M.
- g. Explain the role of Chargepoint, which is listed in Exhibit WSS-11.

### **Question 1-30**

Ms. Saunders, at p. 3, lines 8-17 (p. 408 of pdf 10--LGE\_Testimony 1 of 4), discusses "improving the quality of life" of customers served and "refusing to compromise on safety and health.". Have the companies considered offering any energy efficiency programs that also simultaneously address the health of your customers? Programs like the Green and Healthy Homes Initiative have already proven to lower asthma rates, lower energy bills, and provide an overall better quality of life for residents. Is this something KU and LG&E would consider offering? If not, why not?

### **Question 1-31**

Mr. Thompson, at p. 3 (p. 5 pdf 10--LGE\_Testimony 1 of 4) discusses customer expectations for more options and for energy efficiency, and states that the company carefully plans and strategically executes for the benefit of customers.

Rural Electric Cooperatives in Kansas, eastern Kentucky, North Carolina, and Arkansas have recently pioneered inclusive financing programs for residential and small commercial energy efficiency retrofits via the Pay-As-You-Save (PAYS) tariffed on-bill cost recovery mechanism. The six rural electric cooperatives that have PAYS programs in Kentucky have invested over 2.5 million dollars into efficiency retrofits, creating an average monthly savings of over 5000 kWh/year for participants, with a default rate of less than .5%.

Has KU considered offering PAYS-based inclusive financing to any of its residential, municipal, or commercial customers as a response to their expectations for energy efficiency?

### **Question 1-32**

Mr. Blake, at p. 2 (p. 33 pdf 9—KU Testimony 1 of 4) states, “We constantly seek to strike the right balance between delivering excellent service and low rates for our customers while also delivering an appropriate return of and on the investments of our creditors and shareholders.”

Ouachita Electric in Arkansas, another cooperative with a PAYS program, implemented a 4.5% rate decrease in February of 2020; their general manager Mark Cayce said, “solar installations have lowered our peak demand by approximately 8 MW and our energy efficiency efforts have contributed an additional 2 MW. That, together with some growth on our system, has made this rate decrease possible.” Investor-owned utilities in Georgia, Minnesota, California, and elsewhere are investigating and implementing PAYS-based programs as well.

Has KU considered offering PAYS-based inclusive financing to any of its residential, municipal, or commercial customers as a response to every stakeholder's desire for lower rates?

### **Question 1-33**

Mr. Thompson, p. 15 (p. 17 pdf 12—KU Testimony 1 of 4) states, “Providing assistance to our low-income customers is another integral part of our culture and commitment to the community principles discussed above.”

The six rural electric cooperatives that have PAYS programs in Kentucky have invested over 2.5 million dollars into efficiency retrofits, creating an average net cash flow of over \$10/month for participants, with a default rate of less than .5%.

Has KU considered offering PAYS-based inclusive financing to any of its low-income customers in response to this stated commitment?

**Question 1-34**

If KU has considered offering a PAYS program to any of its customers, please provide documentation of your analysis, as well as your reasoning for not doing so.

**Question 1-35**

What, if any, measures are taken to ensure that commercial customers with contract demand that is fair? What triggers a review of contract demand if metered demand trends down over time as demand savings improvements are made?

**Question 1-36**

Mr. Thompson, at p. 10, (p. 12 of pdf 10--LGE\_Testimony 1 of 4) in discussing cost containment, presents evidence that LGE and KU rates are lower than average US rates.

- a. Please provide similar data on the “energy burden” (the percent of income spent on energy bills) of KU customers vs. energy burdens nation-wide.
- b. Please provide similar data on the size of the “Basic Service Charge” for KU customers compared to such fixed, customer, charges nationwide.

**Question 1-37**

Given that AMI will enable meter reading and other customer services to become automated or remotely handled, do the companies expect the residential Basic Service Charge to decline with the full AMI build-out? If so, what is the size of the expected decline? If not, why not?

**Question 1-38**

Please detail what functions and capabilities will be enabled by AMI in addition to traditional consumption and billing metering and basic condition sensing. Please detail what services are enabled and/or supported by AMI, including energy efficiency, demand response, service connection/disconnection, integration of distributed energy resources (including distributed generation, distributed storage, electric vehicle charging, energy efficiency, etc.). Please provide a detailed accounting of how the costs of AMI will be functionalized and allocated to the various functions and services enabled by the AMI.

### **Question 1-39**

Analysis of customers currently opting in to Advanced Metering shows that their energy use declines by 1.3-1.7% (Exhibit LEB-3, Appendix E, Testimony 1). Since these data come from customers who requested AMS, the energy savings are likely to be much lower for customers in general as stated on Appendix A, A-19, (p. 205 of pdf 10--LGE\_Testimony 1 of 4).

- a. Do the companies plan to take steps to increase this amount of energy saved by customers once AMI is installed? What are these steps?
- b. The reason that customers would like to monitor their usage is so that they can lower their usage and bills. Are there specific tools, beyond detailed information about usage, that will be made available to customers to allow them to "actively manage" usage? E.G. will the company supply "smart thermostats" to customers? Will the company provide financial support for energy efficiency upgrades (beyond that given to customers qualifying for WeCare)?
- c. How do you square your goal of improving customers' ability to actively manage their bills via AMI, with the continual increases in the Basic Service Charge that substantially reduce customers' control over their bills?

### **Question 1-40**

Mr. Bellar, at p. 58 (p. 129 of pdf 10--LGE\_Testimony 1 of 4) states that the companies are committed to offering innovative rate designs such as pre-paid and time-of-day rates when AMI is in operation.

- a. Please provide examples of these prepaid and TOD rates, and estimates of how much they could decrease a customer's bills (please illustrate both for customers who do and do-not have

- rooftop solar). (Have bill declines with such rates been illustrated with other utilities using AMI?)
- b. How will the TOD rates available after AMI differ from the currently available TOD rates?
  - c. Will the new rate designs include demand charges for residential customers as Mr. Seelye recommends? Please illustrate how such charges will impact customers' bills, and how these would interact with TOD rates. Document how such residential demand charges have reduced demand in other states.

#### **Question 1-41**

Mr. Thompson at p. 3 (p. 5 pdf 10--LGE\_Testimony 1 of 4) discusses customer expectations for more options and for energy efficiency, and states that the company carefully plans and strategically executes for the benefit of customers. Please explain:

- a. How continual increases in the Basic Service Charge (already it has doubled since 2013), which create poor price signals and discourage energy efficiency and investment in efficiency upgrades, benefit customers and meet their expectations for energy efficiency?
- b. How the proposed net metering policy, which will drastically increase the time to recover a customer's investment in rooftop solar (making it unaffordable for most customers), benefits customers and meets their expectations for more options?
- c. What in your current application positively addresses customers' desire for energy efficiency (other than the provision of detailed usage information through AMI)?
- d. What in your current application positively addresses customers' desire for renewable energy options?

#### **Question 1-42**

Mr. Thompson, at p. 19, discusses the companies' position on reducing carbon emissions. He describes the companies' goals of reducing emissions from generation assets by 45-90% by 2050. (Page 21 of pdf 10--KU\_Testimony 1 of 4).

- a. What proposals in the current rate case address these goals? Please provide quantitative estimates of the impact of the current rate case proposals on achieving these goals. For example, with installation of AMI, Conservation Voltage Reduction is expected to yield energy savings. Please quantify the impact of this estimated energy saving on reaching emissions reduction goals.
- b. To what degree will the companies achieve these emissions reductions by changing the energy mix, and to what degree will these reductions be achieved through energy efficiency measures?
- c. Please provide data on how energy use by KU residential customers compares to usage by customers nationwide (or in similar geographical regions).
- d. Does the company have goals to reduce methane emissions?
- e. How do the Company's proposed changes to net metering impact carbon emissions reductions over the next 25 years?

#### **Question 1-43**

Mr. Thompson, at p. 22 (p. 24 of pdf 10--LGE\_Testimony 1 of 4), discusses the companies' need for more revenue. Please explain how the proposed changes to Net Metering will address the companies' need for more revenue. Please quantify how current, grand-fathered, net metering customers are impacting revenue shortfalls. Please account for how all costs, avoided costs, and benefits are changed between current net metering and proposed changes in net metering. Please provide copies of any and all such studies associated with this accounting.

#### **Question 1-44**

Ms Saunders, at p. 12 (p. 417 of pdf 10--LGE\_Testimony 1 of 4), presents data on WeCare and other low-income assistance programs. Please provide:

- a. The percent of eligible customers who request WeCare assistance. What percent of these (eligible customers who make a request) receive assistance?
- b. Of those who have received WeCare assistance, what percent have received just educational information, and what percent have received upgrades?

- c. The percent of eligible customers you envision helping with WeCarePlus.
- d. The percent of eligible customers who request bill pay assistance through WinterCare and WinterHelp. What percent of these (eligible customers who make a request) receive assistance?

**Question 1-45**

Customers are not eligible for WeCare benefits if they have already received benefits in the past three years. Does that apply only to customers who previously received upgrades, or does it also apply to customers who just received educational information?

**Question 1-46**

Mr. Seycle, at p. 10 (p. 14 of pdf 13-KU\_Testimony\_4of4) discusses the division of the energy charge into the infrastructure component and variable component.

- a. Please list other utilities that have divided the energy charge in this way.
- b. Since this division is not displayed on customer bills, in what way does this division educate customers?

**Question 1-47**

Mr. Seycle, at p. 20 (p. 24 of pdf 13-KU\_Testimony\_4of4) discusses the claim that intra-class subsidies arise because low-usage customers are paying less than their fair share of a utility's fixed costs.

- a. Is this claim about intra-class subsidies consistent with the relationship between usage and demand? Is it not the case that customers with higher usage also have higher demand? Please present data showing whether there is a negative or positive correlation between usage and demand.

**Question 1-48**

In terms of intra-class subsidies, do low usage customers living in multi-family housing or dense neighborhoods impose lower distribution costs than high usage customers?

### **Question 1-49**

Mr. Seelye, at p. 13 (p. 17 of pdf 13-LGE\_Testimony\_4of4), states that a portion of “customer costs” are currently recovered through the Energy Charge.

- a. Please list what these costs are.
- b. Please demonstrate how these costs have no connection to the volume of electricity used by the customer either in the short or the long run.
- c. Please explain which of these costs will be recovered in the Basic Service Charge in the proposed rates.

### **Question 1-50**

Mr. Seelye, at p. 11 ( p. 15 of pdf 13-LGE\_Testimony\_4of4) discusses costs that “do not vary directly with energy use”, including “fixed operation and maintenance expenses related to utility infrastructure” and costs that are “not automatically” reduced when customers use less energy.

- a. Please distinguish “fixed” vs “variable” operation and maintenance expenses.
- b. Are there costs that vary “indirectly” with energy use, rather than varying directly?
- c. What does “not automatically” reduced mean? Does that mean some of these costs may be reduced over the long term with less energy use?

### **Question 1-51**

Witness Thompson states on p. 21 (p. 23 of pdf of 10—LGE Testimony 1 of 4 ): “Under my direction, the Companies delayed this filing two months from what was previously planned, to a time when Kentucky’s moratorium on disconnections for non-payment has been lifted and the economy has begun to reopen. Furthermore, we have taken unique measures to minimize the bill impact occasioned by a rate increase through the middle of 2022, including a proposed economic relief surcredit.”

- a. Have the companies developed estimates measuring the size of an economic recovery by the middle of 2022? Provide that analysis and any accompanying workpapers.
- b. The proposed surcredit reduces the size of the bill increases by the following: 0.7% for KU customers, 3% for LGE Electric customers, and 0.5% for gas customers. In the context of current and likely continuing economic hardship as a consequence of COVID-19, provide all information and sources relied on by the companies to support their claims that they have “minimized bill impacts through the middle of 2022”.
- c. Given the economic impacts of COVID-19, what are the expected increases in disconnections that are likely to occur in 2021, if any? Please provide an explanation of the analysis on projected disconnections for 2021. Provide numbers of actual disconnections, by month, for years 2018, 2019, and 2020.
- d. If there are projected increases in disconnections for 2021, what is the basis for the company increasing the fees for disconnections and reconnections? (\$9.00 KU; \$4.00 LGE).

### **Question 1-52**

Provide the workpapers (in excel, with formulas intact) the calculations of the bill increases given in the customer notices and by Witness Conroy, p. 6 page (388 of pdf. 11-KU Testimony 2 of 4).

- a. With respect first year the proposed rates are in place please explain and provide the financial impact of the sur credit.
- b. With respect to the time after the first year, please explain and provide the financial impact of the sur credit.

### **Question 1-53**

How does the company determine the costs to include in the residential basic service charge (or customer 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.

**Question 1-54**

Provide all workpapers (in excel worksheets with formula's intact) showing the proposed rate increases (by class), including all analysis broken down by charge type (i.e. customer charge, kWh, and Demand-charges).

**Question 1-55**

Provide the Company's current Integrated Resource Plan (public and confidential versions). Please include any updates that have been added since the time it was filed, if any. Identify the company's current capacity position and any planned additions or retirement of generation.

**Question 1-56**

Provide all analyses performed by the company (or its contractors) to evaluate the cost impact of installing AMI meters for all 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.

**Question 1-57**

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, on non-net-metering customers.

**Question 1-58**

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.

**Question 1-59**

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.

**Question 1-60**

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.

**Question 1-61**

Provide the Case docket numbers for the company's 5 most recent rate cases.

**Question 1-62**

Provide the amounts of all salary increases, financial incentives, or bonuses paid to C-suite level employees and other non-union employee in management positions by year for 2018, 2019, 2020, and projected for 2021, if any.

**Question 1-63**

Provide the amount of shareholder (below-the-line) money the company has spent on community outreach or financial assistance to customers for the years 2018, 2019, 2020, and projected for 2021, if any.

**Question 1-64**

Provide the amount of ratepayer (above-the-line) money the company has spent on community outreach or financial assistance to customers for the years 2018, 2019, 2020, and projected for 2021, if any.

**Question 1-65**

Provide the company's plan to develop rate offerings that offer customers choice and savings that AMI meters would enable, if any. Please include copies of the program tariffs.

**Question 1-66**

Identify all increased costs the company would incur by account, for each year during an implementation of system-wide AMI meters for residential customers. Please include all workpapers associated with these calculations, if any.

**Question 1-67**

Identify all savings the company projects it would incur, by account, for each year during an implementation of system-wide AMI meters for residential customers. Please include all workpapers associated with these calculations, if any.

**Question 1-68**

Does the company have a plan to use AMI meters to support distributed energy resources, such as solar? Provide any documentation of that plan, including tariff sheets, if available.

**Question 1-69**

Please explain whether any of the monies expended by LGE on legislative agents, on direct or grassroots lobbying, informational materials, and any other expenses associated with LGE's efforts to have SB 100 enacted by the General Assembly, are included in this rate case. If so, please itemize by category all of those expenses for which recovery is sought.

Respectfully submitted,



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Mountain Association, Kentuckians  
for the Commonwealth, and  
Kentucky Solar Energy Society

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 January 8, 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.



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Tom FitzGerald