

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTONIC APPLICATION OF LOUISVILLE GAS)
AND ELECTRIC COMPANY FOR AN ADJUSTMENT) CASE NO. 2020-00350
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)

**LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT'S
SECOND REQUEST FOR INFORMATION TO LOUISVILLE GAS & ELECTRIC**

In accordance with the Public Service Commission's ("Commission") December 9, 2020, Order, Intervenor Louisville/Jefferson County Metro Government ("Louisville Metro") propounds the following data requests upon the Applicant Louisville Gas & Electric ("LG&E"). LG&E shall respond to these requests in accordance with the provisions of the Commission's December 9, 2020, Order, applicable regulations, and the instructions set forth below.

INSTRUCTIONS

1. Please provide written responses, together with any and all exhibits pertaining thereto, separately indexed and tabbed by each response.
2. The responses provided should restate Louisville Metro's request and also identify the witness(es) responsible for supplying the information.
3. If any request appears confusing, please request clarification directly from counsel for Louisville Metro.

4. Please answer each designated part of each information request separately. If you do not have complete information with respect to any item, please 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.

5. To the extent that the specific document, workpaper, or information does not exist as requested, but a similar document, workpaper, or information does exist, provide the similar document, workpaper, or information.

6. To the extent that any request may be answered by way of a computer printout, please identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.

7. If LG&E objects to any request on any grounds, please notify counsel for Louisville Metro as soon as possible.

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

9. In the event any document called for has been destroyed or transferred beyond the control of the company, state the following: the identity of the person by whom it was 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 destroyed or disposed of by operation of a retention policy, state the retention policy.

10. These requests shall be deemed continuing so as to require further and supplemental responses if the company receives or generates additional information within the

scope of these requests between the time of the response and the time of any hearing conducted hereon.

Respectfully submitted,



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CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that the February 5, 2021, electronic filing of this document is a true and accurate copy of the same document being filed in paper medium; that the electronic filing will be transmitted to the Commission on February 5, 2021; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that copy of the document will be delivered to the Commission within 30 days after the lifting of the State of Emergency.



Counsel for Louisville Metro

1. Refer to Response to Metro 1-1. See Chart provided as answer to Metro 1-1(a) and 1-1(d) and PSC 2-130(a), line 42, "material burden," which shows a 120% mark up for material on each column.
 - (a) What is basis for this "material burden"?
 - (b) What is basis for the amount of the "material burden" being 120% of material cost?
 - (c) Is there a true-up mechanism to determine the true value of the material and give credit, or additional cost, when actual expenses are known?
2. Refer to Response to Metro 1-1. See Chart provided as answer to Metro DR 1-1(a) and 1-1(d) and PSC 2-130(a), line 50, "labor burden," which shows a 112% mark up for labor on each column.
 - (a) What is basis for this "labor burden"?
 - (b) What is basis for the amount of the "labor burden" being 112% of labor cost?
 - (c) Is there a true-up mechanism to determine the true value of the labor and give credit, or additional cost, when actual expenses are known?
3. Please provide in native (Excel) format the Attachment to Response to Metro 1-2(c).
4. Please refer to Response to Metro 1-2(c) and (d).
 - (a) Would NBV of fixture decrease over time until it is either replaced, either by failure or conversion?
 - (b) What is NBV of fixtures as of January 1, 2018, 2019, 2020, and 2021?
 - (c) Why shouldn't one-time conversion fee be tied to each years' NBV, thus ratcheting down with depreciation?
5. Refer to the Attachment to Response to Metro 1-2(c).
 - (a) What is the cost of LED installations included in the "New Business" section for 2017, 2018 and 2019?
 - (b) What is the cost of LEDs included for each year shown in the "Repair/replace Def Street Lighting" section?
 - (c) Reference the section titled "Calculated Present Day NBV."
 - i) What is the source of the NBV figures shown for OH Fix, UF Fix, and Poles?
 - ii) Why is "Total NBV" of \$148,199,192.13 different from "Net Cost Rate Base" for Distribution Street & Customer Lighting (Outdoor Lighting LS & RLS) of \$7,771,357.00 as shown on Exhibit WSS-32, page 6/36?
6. Please refer to Response to Metro 1-2(g) and Exhibit WSS-5. Of the \$277.29 proposed one-time conversion fee, in dollars and cents, what amount is salvage and what amount is revenue?
7. Refer to the Response to Metro 1-5.
 - (a) Why do reactive conversions require a one-man crew but proactive conversions require a two-man crew?
 - (b) Please refer to Witness Wolfe's "Labor Cost Detail" spreadsheet (page 71 of 89).
 - i) Please describe what is included in "Total Labor Costs." Specifically, does Total Labor Cost include:
 - (1) Any labor time spent not at the worksite, for example in planning and preparation or in transit to each work site?
 - (2) Any indirect or overhead labor charges, for example labor costs of staff who prepare and represent project proposals to customers, engineering and design

- (b) Address whether credits, or other compensation, are granted automatically or if they require a request and documentation from the customer.
 - (c) Provide an accounting for 2017, 2018 and, 2019 for total outage-related bill credits or compensation, and if credits are granted for different reasons break down the accounting accordingly.
12. Refer to Response to Metro 1-15, 1-22, and 1-25. Metro believes it is imperative that the system currently employed for failed fixture replacement be improved.
- (a) Is there any technology available, used by other utilities, that can identify street light outages without the need for human inspection?
 - (b) Assuming so, what is the cost for such technology and what does it consist of?
 - (c) Is the Company familiar with Citytouch, by Phillips or Current, by GE? If so, has the Company considered these applications?
 - (d) See answer to Metro 1-25(a) regarding mobile applications that allows street light outages to be “geo-tagged” or otherwise noticed to the Company. What is status of the “company considering the feasibility of developing this type of feature on the Company’s App or Website”?
 - (e) Has Company reviewed what other utilities have done regarding this?
 - (f) If so, which utilities?
 - (g) Would Company be willing to accept information regarding street light outages that is reported to Louisville Metro through Metro technology?
 - (h) Assuming so, would company work with Louisville Metro to set up a bridge to receive directly?
13. Refer to Response to Metro 1-18.
- (a) Does the average time to repair of 2.01 days in 2020 include outages identified through the patrol-and-fix practices described in the answer to question 15?
 - (b) If so, what was the average time to repair for outages other than those identified and addressed by patrol-and-fix?
 - (c) What is Standard Operating Procedure for repair calls including how the contractor is chosen?
 - (d) Does the process differ based on how the Company receives the outage report?
14. Refer to Response to Metro 1-22(b) stating that the rate schedule provides LG&E two business days to initiate a repair. Is there any time standard within which the company is required to complete a repair and restore service? If the answer is yes, please identify under what authority or agreement the standard has been established, and how the Company communicates that standard to customers.
15. Refer to Response to Metro 1-24, which states that Based on historical maintenance the Company expects to replace approximately 2,095 fixtures with LED fixtures each year over the next 5 years.
- (a) Confirm that the Company’s expectation to replace approximately 2,291 fixtures per year is for the Company’s entire system, and not only within Louisville Metro.
 - (b) If customers request conversion of traditional street lighting to LED lighting, does the Company anticipate that there will be a maximum capacity of conversions that can occur in one year? If so, what is that anticipated maximum capacity?
 - (c) What assurances will the Company provide that it will not prioritize replacing traditional RLS lights with lower rates than their LED equivalent?

16. Describe how revenue received from the Pole Attachment rates effectively results in lower rates for street lighting. Within your answer, please identify where this is demonstrated in the Company's Application materials.
17. This item is intentionally left blank.
18. Please refer to the Response to Metro 1-42(a) referencing Table 2 of the Meter Life Study in Exhibit LEB-3, Appendix C.
 - (a) Are the electromechanical meters with a total failure rate in 70 years those contemplated in the Company's Status Quo scenario?
 - (b) The Company's requested meters total failure rate is 28 years, less than $\frac{1}{2}$ the comparable meters, has the company compared the cost of the status quo versus the requested meters over the 70-year period?
 - (c) If so, please provide.
 - (d) If not, why not?
19. Please refer to the Response to Metro 1-46. Please detail the assumptions used by LG&E in concluding that the combined revenue requirement is zero.
20. Please refer to the Response to Metro 1-46 and KWB-2, which identifies Status Quo meter reading and field services on the order of \$22M and \$17M, respectively. Please provide support for the derivation of these figures.
21. Please refer to the Response to Metro 1-46(c): Is it possible that a Cost of Service Study for the rate impact of AMI proposal could require rate increases for a customer class even though the projections currently provided by the Company's current "combined revenue requirement impact is shown as zero"?
22. Please refer to the Response to Metro 1-46. If the Company is unsuccessful in its CPCN application for the AMI proposal does it plan to follow the status quo scenario as outlined in the application? If not, what other options are there?
23. Please refer to the Response to Metro 1-47(a). For the AMI meters in use in the "downtown network" over the last 10 years
 - (a) How many actual AMI meters were installed?
 - (b) For each meter that is in use for Metro as a customer of LG&E, please state the locations of each meter and whether the meter provides usage data to Metro within 24 hours of the use.
 - (c) Are there any Metro meters within the "downtown network" in which AMI meters have not been installed? If so, where? If so, why?
 - (d) What was the actual failure rate of these meters?
 - (e) What type of failures occurred?
 - (f) What savings did these meters provide the Company?
 - (g) What savings did these meters provide the ratepayers?
 - (h) What rate classifications used these meters?
 - (i) Were customers able to expand their rate options?
 - (j) Where TOD rates available?
 - (k) If so, how many changed to TOD rates in response to the AMI option?
24. Please refer to the Response to Metro 1-47(c), referencing the answer to Metro 1-42(a).
 - (a) In DR 1-47(c), the company says, "AMI meters are assumed to have the same failure rates as non-communicating electronic meters." Are these "non-communicating

- electronic meters” different than the “electromechanical meters” with the 70-year total failure rate shown in Table 2 of the Meter Life Study in Exhibit LEB-3, Appendix C?
- (b) If so, what are the meters described as “electromechanical meters” with the 70-year total failure rate shown in Table 2 of the Meter Life Study in Exhibit LEB-3, Appendix C?
 - (c) What are the “non-communicating electronic meters” referred to in the answer to Metro 1-47(c)?
 - (d) If they are the same meters, how does the Company explain its contradictory answers to Metro 1-47(c) and Metro 1-42(a)?
 - (e) Which meter is the Company using as the status quo alternative to the AMI proposal?
 - (f) If the answer to (e) is “non-communicating electronic meters,” please provide a chart like that provided in Table 2 of the Meter Life Study in Exhibit LEB-3, Appendix C, with the “non-communicating electronic meters” added.
25. Please refer to the Response to Metro 1-47, 1-53, and 1-59.
- (a) Will multi-factor authentication be required to access customer data provided by the AMI meter?
 - (b) If not, how will consumer data access be protected?
26. Please refer to the Response to Metro 1-48.
- (a) Explain how will LG&E know when the back-up power capacitor is failing or has failed?
 - (b) Do the proposed meters have self-diagnostics?
 - (c) The Response indicated the lifecycle replacement has been included in Ongoing Maintenance projections show in LEB-3 6.1 and 6.2, but there is not an increase in these costs on KWB-2’s 15- and 20-year rate making projections.
 - i) Confirm that it is reasonable to anticipate maintenance costs would increase in years 15-20 due to anticipated meter and capacitor failures.
 - ii) Please explain why there would not be an increase in costs in KWB-2’s 15- and 20-year rate making projections.
27. Please refer to the Response to Metro 1-50. Please state the type of information/data coming from both SCADA and AMI that would overlap.
28. Please refer to the Response to Metro 1-51. There are concerns that with such a large number of meters serving Louisville Metro accounts, any automated response system to an outage or issue has the potential to overwhelm Metro’s incoming phone system, or email accounts. In addition, even on smaller issues, it may be difficult for the automated response system to adequately identify the account, meter, address. Metro is not unique in this situation and other major accounts may have similar issues, such as property management entities and apartment complex owners. These same issues are expected to impact the MyMeter interface as well. Metro is very concerned that these critical communication and information points and tools touted as key factors to improve communication as part of the proposed AMI project will have inherent flaws for Major Account holders unless they are included within the design from day one of development, as opposed to being addressed by Key Account representatives after deployment when there will not be resources to reprogram major systems, if needed. The identification of multiple types of information management arrangements was discussed as a key point during the 2017 AMS collaborative. Please explain how these issues that may impact Major Accounts will be implemented into the proposed AMI project from the initial design phases.

29. Please refer to the Response to Metro 1-52, wherein the term “validated” was underlined in the response addressing the process if the proposed AMI deployment is approved.
- (a) Is the current data from Opt-in meters not validated?
 - (b) Please explain the process of how this data will be validated in the proposed AMI project.
30. Please refer to the Response to Metro 1-53.
- (a) Will LG&E commit to not obtaining the disaggregated data without: (1) providing notice to its customers, and (2) obtaining PSC approval?
 - (b) Does the commitment to not sell customers’ energy usage data including future data collected, such as the data which it may obtain from future analytics’ system?
 - (c) Does the data collected from AMI increase the risk to customers’ data being breached? If so, why?
 - (d) Please provide all documentation, research, presentations, internal and external communications regarding advanced analytics, data mining, load or use identification associated with the proposed AMI project, specifically for information at the meter level.
 - (e) Use of analytics to identify specific loads, use, equipment/device, and use patterns at the meter level does not appear to be a critical business need. This information done at the circuit level would seem sufficient to identify any clear business needs, e.g. infrastructure improvements. Please explain why LG&E needs to have the ability to “See behind the meter” using advanced analytics in comparison to at the circuit level.
 - (f) Please provide a list of all data points the AMI proposed meters are capable of measuring.
 - (g) Please provide a list of all data points the AMI proposed meters are capable of measuring that LG&E intends to record and the interval of those readings.
 - (h) Please provide a business use/need for each AMI proposed meters data point LG&E intends to record and analyze.
 - (i) Has LG&E developed a policy under which it will share or allow third parties to access meter level data, including any developed as a result of advanced analytics from data obtained via AMI meters? This response may disregard data sharing that has been “specifically” authorized by the customer, e.g., to a third-party energy efficiency contractor or landlord.
31. Please refer to the Response to Metro 1-53(b). The Companies state that they “previously committed to not sell customer energy usage information.”
- (a) How was this commitment stated or provided?
 - (b) What is penalty if the company violated this commitment?
 - (c) Is this commitment in the tariff?
 - (d) If not, will the company put the commitment in the tariff?
 - (e) Has the company sold any other customer data to any entity?
 - (f) Will the company commit to not sell any customer data to outside entities in the future?
32. Please refer to the LG&E Response to Metro 1-58. Regarding customer connection to AMI via Zigbee, please describe what equipment/software is needed by the customer, such as the make/model of the “bridge.”
33. Please refer to the LG&E Response to Metro 1-59(a).
- (a) Are the 24 employees dedicated to cybersecurity for LG&E, LKE or throughout all of PPL?
 - (b) Do these 24 employees handle cybersecurity throughout generation, transmission and distribution? If not, what do these 24 specifically handle?

- (c) What tools are used to ensure cybersecurity of the customers data assisting the cybersecurity team?
34. Please refer to the LG&E Response to Metro 1-59(g). Will LG&E commit to notifying Metro if its Metro's data has been breached?
35. Please refer to the LG&E Response to Metro A-60(b).
- (a) Please refer to the last sentence, "The advanced motor deployment schedule has meters installed from late 2022-2026." Does that include all meters including those Power Service meters served by the company's Itron MV-90 system?
 - (b) What is the location of Metro Power Service meters currently not billed by Itron's MV-90 system?
 - (c) Exhibit 5 of the Application listed only model meters with 200A and 320A ratings. Please provide data sheets for any other meters that will be used for PS applications where the rating may be above 320A.
 - (d) Louisville Metro benefits from interval data, but receipt of the data is often delayed.
 - i. With the full implementation of the RF mesh network, will there be any improvements or benefits to the interval data collection and availability to the customer including Louisville Metro, e.g., will the reporting lag be reduced? If not, why?
 - ii. What would it take to interconnect the to the new RF Mesh network? If interconnection is possible, would it result in near real time readings with the meters?
 - iii. If the response is no, it is not possible, or it was not included in the proposed AMI project for that reason; Was there any research or discussion of including of a compatible meter for TOD and PS meters to take advantage of the new RF mesh network? Would the inclusion of these meters then result in a further reduction of meter reading services, a key cost reduction measure for the proposed AMI project?
 - (e) Metro currently has accounts that started out as TOD accounts, thus requiring the MV-90 meter. Some of these accounts have changed use/demand profiles and are now PS accounts thus not needing MV-90 metering. The proposed AMI project results in 24 hour lag on interval data vs the MV90 minimum of 30 day lag. Will it be possible to request AMI meters be installed at PS accounts that currently have MV90 meters, but do not require them for their current billed rate code?
36. Please see LG&E Response to Metro 1-61. Which meters of Metro will not receive an AMI meter?
37. Please refer to the LG&E Response to Metro 1-64. Does your Response mean that participants in the Solar Share or Business Share Programs receive credits not measured by the amount of solar energy produced by the Customer? If the credits are not measured this way, how is the amount of the credit determined?
38. Please refer to the Response to Metro 1-68. From review of testimony referenced, it appears that the Company believes KRS 278.486(5), which allows recovery of "all costs necessary to serve its eligible customer – generators," would allow a greater recovery from net metering customers than the SQF tariff that the Companies are proposing.
- (a) Is this accurate?
 - (b) If so, please explain what additional recovery the Companies believe it can recover?
 - (c) Please include any analysis to support these answers.

39. Please refer to the LG&E Response to Metro 1-66, 1-68 and 1-69. Based on the very few customers who use the net metering rates, what is the actual dollar amount of the subsidies they are receiving from other customers in total and by customer by class? What would the subsidies be under the proposed tariff?
40. Please refer to the LG&E Response to Metro 1-81. Please break down these increased costs specifically by group in dollar amount. Explain.
41. Please refer to the LG&E Response to Metro 1-83(a). Is the 2007 Distribution Plan filed still in effect in its entirety? If not, please indicate which provisions are not in effect and documentation of what has replaced provisions in the 2007 plan.
42. Please refer to the LG&E Response to Metro 1-83(b).
 - (a) Have any of the four (4) plans attached been submitted to the PSC? If so, please state which plans were submitted and why were they submitted?
 - (b) Have any of the four (4) plans been submitted to NERC or FERC for review and/or approval?
43. This item intentionally left blank.
44. This item intentionally left blank.
45. Please identify the location of all transmission lines in Louisville Metro and the kV level of each.
46. Please refer to paragraph 7 on page 9 of the Transmission Vegetation Practice Plans submitted in Response to Metro 1-83(b).
 - (a) Under what circumstances “may” nearby property owners need to be notified of work plan and schedule.
 - (b) Under what circumstances are rights deemed “necessary” to procure before work occurs on private property, or Federal, State, and County road rights of way?
47. This item intentionally left blank.
48. Please refer to the LG&E Response to Metro 1-85.
 - (a) How much was spent on transmission vegetation management within Louisville Metro for each year between 2017 – 2020?
 - (b) How much does removing a tree cost on average?
 - (c) Do you pay a set cost regardless of type of tree or different cost depending on the type of tree?
49. Refer to Response to Metro 1-86. Provide a true-scale map of Louisville Metro (or larger geographical area) identifying LG&E’s transmission-line corridors and distinguishing between transmission-line corridors that have been cleared under the current five-year plan and transmission-line corridors that have not been cleared under the current five-year plan.
50. Please refer to the Response to Metro 1-87(a), referring to Distribution Vegetation Management Plan provided in response to DR 1-83(a), page 4 “Routine Trimming Cycle Plan” and “Mid-Cycle Touch up Plan.”
 - (a) How often is the same circuit, on average, trimmed?
 - (b) Do only circuits with “fast growing and hazard trees” get a mid cycle touch up?
 - (c) How does the Company determine what are “fast growing and hazard trees”?
51. This item intentionally left blank.
52. This item intentionally left blank.
53. This item intentionally left blank.
54. This item intentionally left blank.

55. This item intentionally left blank.
56. This item intentionally left blank.
57. Please see Response to Metro 1-87(d). Does LG&E comply with those standards for vegetation management or not? Does LG&E comply with the standard related to unacceptable pruning methods?
58. Please refer to the Response to Metro 1-95. Are the listed current arborists ISA certified arborists? Does LG&E have any certified arborists for transmission lines? If so, please state their names.
59. This item intentionally left blank.
60. Please Refer to Response to Metro 1-29.
- (a) What would the cost to Metro and savings to Metro to be in the scenario provided if Metro chose to use the one-time conversion fee instead of the monthly conversion fee. Please provide for the year the conversion fee would come into effect, and each of the next five years. In other words, if Metro converted in year 1, year 2, year 3, year 4 and year 5.
 - (b) Is there any scenario on any LED conversion (not just the scenario listed in question 29) in which it would be cheaper for Metro to use the monthly conversion fee as opposed to the one-time conversion fee?
 - (c) If the answer to (b) is yes, please provide an example.
61. Please Refer to Response to Metro 1-99, 109(b), and Chart on Bellar testimony, page 52.
- (a) The three projects, Western Kentucky A and B modernization, and Magnolia Crossing, totaling \$26.7 million dollars, were denied by the Commission in 2019-301 on March 26, 2020 (as accurately noted in DR response) because the “projects did not address any immediate safety or reliability concerns” – what has changed in the last ten months to change this Commission finding?
 - (b) Have any other projects listed on the chart from Bellar testimony page 52 been disallowed by the Commission in any previous proceedings?
 - (c) Have any other projects listed in the chart on Bellar testimony page 52 been requested in a previous rate case but were withdrawn in a settlement?
 - (d) Are the projects listed on the chart on page 52 of Bellar’s testimony, which have not received a CPCN or have been previously rejected by the Commission, necessary now? Why?
62. Please Refer to Response to Metro 1-107(c) and Chart on Bellar Testimony page 52.
- (a) Is the project, at the top of the chart on page 52, titled “Gas Transmission Modernization (Penile-Blanton, Penile-Preston, Preston-Piccadilly)” totaling \$28.6 Million, the same as described in answer to Metro DR 107(c)?
 - (b) If so, is the company only requesting \$28.6 million be recovered in the current rate case?
 - (c) This amount is different than what is in the answer to DR 107(c), please explain?
 - (d) What portion of these costs are currently in the GLT?
 - (e) What portion is being requested to be in the rates in this case?
 - (f) What portion will remain in the GLT?
63. Please refer to Response to Metro 1-112(a).
- (a) What additional technology would be necessary to allow for the safe remote disconnection of gas?

- (b) What is the cost per meter of such technology?
- (c) Is the company opposed to remote disconnection of gas service or will it consider remote disconnection of gas service in the future?