

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matters of:

ELECTRONIC APPLICATION OF KENTUCKY)
UTILITIES CO. FOR AN ADJUSTMENT OF ITS)
ELECTRIC RATES, A CERTIFICATE OF PUBLIC) CASE No.
CONVENIENCE AND NECESSITY TO DEPLOY) 2020-00349
ADVANCED METERING INFRASTRUCTURE,)
APPROVAL OF CERTAIN REGULATORY AND)
ACCOUNTING TREATMENTS, AND ESTABLISH-)
MENT OF A ONE-YEAR SURCREDIT)

-and-

ELECTRONIC APPLICATION OF LOUISVILLE)
GAS & ELECTRIC CO. FOR AN ADJUSTMENT)
OF ITS ELECTRIC AND GAS RATES, A CERTIFI-)
CATE OF PUBLIC CONVENIENCE AND NECESSITY) CASE No.
TO DEPLOY ADVANCED METERING INFRA-) 2020-00350
STRUCTURE, APPROVAL OF CERTAIN)
REGULATORY AND ACCOUNTING TREATMENTS,)
AND ESTABLISHMENT OF A ONE-YEAR SURCREDIT)

**JOINT SUPPLEMENTAL DATA REQUESTS OF THE
ATTORNEY GENERAL AND KIUC**

The intervenors, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention [“OAG”], and the Kentucky Industrial Utility Customers [“KIUC”] hereby submit the following Supplemental Data Requests to Kentucky Utilities Co. [“KU”], and Louisville Gas & Electric Co. [“LG&E”][hereinafter jointly referenced as “LG&E-KU” or “the Companies”] to be answered by the date specified in the Commission’s Orders of Procedure, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate request item will be deemed a satisfactory response.

- (2) Identify the witness who will be prepared to answer questions concerning each request.
- (3) Repeat the question to which each response is intended to refer. The OAG-KIUC can provide counsel for LG&E-KU with an electronic version of these questions, upon request.
- (4) These requests shall be deemed continuing so as to require further and supplemental responses if the Companies receive or generate additional information within the scope of these requests between the time of the response and the time of any hearing conducted hereon.
- (5) Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.
- (6) If you believe any request appears confusing, request clarification directly from Counsel for OAG-KIUC.
- (7) To the extent that the specific document, workpaper or information as requested does not exist, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.
- (8) To the extent that any request may be answered by way of a computer printout, identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.
- (9) If the Companies have objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify OAG-KIUC as soon as possible.
- (10) As used herein, the words "document" or "documents" are to be construed broadly and shall mean the original of the same (and all non-identical copies or drafts thereof) and if the original

is not available, the best copy available. These terms shall include all information recorded in any written, graphic or other tangible form and shall include, without limiting the generality of the foregoing, all reports; memoranda; books or notebooks; written or recorded statements, interviews, affidavits and depositions; all letters or correspondence; telegrams, cables and telex messages; contracts, leases, insurance policies or other agreements; warnings and caution/hazard notices or labels; mechanical and electronic recordings and all information so stored, or transcripts of such recordings; calendars, appointment books, schedules, agendas and diary entries; notes or memoranda of conversations (telephonic or otherwise), meetings or conferences; legal pleadings and transcripts of legal proceedings; maps, models, charts, diagrams, graphs and other demonstrative materials; financial statements, annual reports, balance sheets and other accounting records; quotations or offers; bulletins, newsletters, pamphlets, brochures and all other similar publications; summaries or compilations of data; deeds, titles, or other instruments of ownership; blueprints and specifications; manuals, guidelines, regulations, procedures, policies and instructional materials of any type; photographs or pictures, film, microfilm and microfiche; videotapes; articles; announcements and notices of any type; surveys, studies, evaluations, tests and all research and development (R&D) materials; newspaper clippings and press releases; time cards, employee schedules or rosters, and other payroll records; cancelled checks, invoices, bills and receipts; and writings of any kind and all other tangible things upon which any handwriting, typing, printing, drawings, representations, graphic matter, magnetic or electrical impulses, or other forms of communication are recorded or produced, including audio and video recordings, computer stored information (whether or not in printout form), computer-readable media or other electronically maintained or transmitted information regardless of the media or format in which

they are stored, and all other rough drafts, revised drafts (including all handwritten notes or other marks on the same) and copies of documents as hereinbefore defined by whatever means made.

(11) For any document withheld on the basis 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.

(12) In the event any document called for has been destroyed or transferred beyond the control of the Companies, state: 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.

(13) Provide written responses, together with any and all exhibits pertaining thereto, in one or more bound volumes, separately indexed and tabbed by each response, in compliance with Kentucky Public Service Commission Regulations.

(14) “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.

(15) “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.

Respectfully submitted,

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Certificate of Service

Pursuant to the Commission's Orders in Case No. 2020-00085, and in accord with all other applicable law, Counsel certifies that an electronic copy of the forgoing was served and filed by e-mail to the parties of record. Further, counsel for OAG will submit the paper originals of the foregoing to the Commission within 30 days after the Governor lifts the current state of emergency.

This 5th day of February, 2021



Assistant Attorney General

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I. REVENUE REQUIREMENTS

1. Explain whether the Companies will be eligible to apply for federal stimulus funds to pay off or otherwise alleviate utility customer arrearages. Provide all details.
 - a. If the Companies are eligible to receive such funds but will not be applying for such funds, explain in detail why not.
 - b. If the Companies have applied or are applying for such funds, provide: (i) an update on the status of the application; and (ii) a detailed explanation of the impact such funds will have on the revenue requirements sought in the instant rate cases.
 - c. Provide all assumptions, data, and calculations in live Excel format with all formulas intact.
 - d. Provide a calculation of uncollectible accounts expense and uncollectible accounts reserve in the test year to reflect the receipt of stimulus or other relief funds to pay off or otherwise alleviate utility customer arrearage in response to Covid-19.
 - e. Explain if the Companies are aware of whether any city or county governments located within their service territories have applied for these funds.
2. [THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2020-00350]
3. Provide the amount of Supplemental Executive Retirement Plan (“SERP”) expense in the test year and the amount included in the revenue requirement. Provide the SERP expense directly incurred by the Companies (KU and LG&E Electric and Gas) and the SERP expense charged to the Companies from each other affiliate.
4. Refer to the trial balances provided in response to AG-KIUC DR 1-8 for both Companies. Refer also to the notation contained on the final page of both trial balances which reads, “(1) At the time this data request was submitted the December 2020 pension remeasurement entries had not yet been booked.”
 - a. Provide the amount of pension expense for 2020 by FERC subaccount and in total before and after the “remeasurement entries” were booked.
 - b. Explain what is meant by the “remeasurement entries” and describe the source of the information used to perform the entries.
 - c. Provide copies of all source documents and calculations for the “remeasurement entries” in electronic format with all formulas in place.

- d. Provide copies of all journal entries used to record the “remeasurement entries” applicable to December 2020.
 - e. Indicate whether there are “remeasurement entries” applicable to OPEB expense as well. If so, provide the information requested in each subpart above that is applicable to OPEB expense.
5. Refer to the Companies’ responses to AG-KIUC DR 1-63 subparts (i) and (j) related to the collection, payment, and recording of sales taxes.
 - a. Indicate whether the Companies “earn” a vendor compensation credit for acting as a collection agent for the state and local sales tax authorities. If so, confirm that this credit reduces the sales tax collected that must be remitted to the state and local sales tax authorities.
 - b. Provide the FERC accounts/subaccounts in which sales tax related vendor (taxpayer) compensation credits are recorded. If more than one FERC account/subaccount, then describe the costs that are recorded to each account/subaccount.
 - c. Provide the amounts of sales tax related vendor (taxpayer) compensation credits recorded for each month during the years 2018, 2019, and 2020 as well as the amounts forecast for each month in the base year and the test year.
 - d. Describe how sales tax related vendor (taxpayer) compensation credits are reflected in the calculation of the revenue requirement, including the test year filing schedules and workpapers. Annotate the amounts shown on the filing schedules and workpapers. If not reflected, explain why not.
6. Refer to the Commission’s January 13, 2021 Order in Case No. 2020-00174 at pages 18-19 pertaining to the disallowance of costs for meals, snacks, and beverages consumed by the utility and its affiliates during meetings involving rate case matters and witness coaching for the rate case provided by parties other than the counsel of record. Provide the costs for meals, snacks, and beverages consumed by the utility and its affiliates during meetings involving rate case matters and for witness coaching provided by parties other than the counsel of record related to this proceeding included in the estimated rate case expense regulatory asset and amortization expense in the test year. In addition, provide all invoice support for such costs.
7. Confirm that the Company does not maintain subaccounts for each generating unit by plant account for accumulated depreciation in its accounting records.
 - a. If this is not correct, then please provide a detailed description of the Company’s accounting by generating unit and plant account for accumulated depreciation and the subaccounts that are used for this purpose. Provide a copy

of all written documentation of the Company's accounting and all related procedures and guidelines.

- b. Provide a detailed description of all allocations or reallocations of the accumulated depreciation reserve in whole or part among generating units and plant accounts by Mr. Spanos or by the Company for use by Mr. Spanos in his depreciation study in this proceeding. In your response, address how the demolition costs for Tyrone, Green River, Pineville, Cane Run, and Canal, as discussed by Mr. Bellar in his direct testimony at 16-17, were allocated or reallocated to the accumulated depreciation reserve in whole or part among other operating generating units and plant accounts.
 - c. To the extent that there was an allocation or reallocation of the accumulated depreciation reserves in whole or part among generating units and plant accounts reflected in the depreciation study in this proceeding, provide: i) a detailed narrative explanation as to why such an allocation was necessary, ii) a detailed description of the methodology used for this purpose, iii) a detailed explanation as to why the methodology used for this purpose was selected and applied in the depreciation studies filed in these proceedings, and iv) all reasons why this methodology is reasonable.
 - d. Provide a detailed description of all allocations or reallocations of the accumulated depreciation reserve in whole or part among generating units and plant accounts by Mr. Spanos or by the Company for use by Mr. Spanos in his depreciation study in the Company's last base rate proceeding.
 - e. To the extent that there was an allocation or reallocation of the accumulated depreciation reserves in whole or part among generating units and plant accounts reflected in the depreciation study in the Company's last base rate proceeding, provide: i) a detailed narrative explanation as to why such an allocation was necessary, ii) a detailed description of the methodology used for this purpose, iii) a detailed explanation as to why the methodology used for this purpose was selected and applied in the depreciation studies filed in these proceedings, and iv) all reasons why this methodology is reasonable.
8. Confirm that the demolition costs for retired power plants are debited to (used to reduce) the accumulated depreciation reserve.
- a. Confirm that, as a practical matter, these demolition costs increase the net book value of all other generating units by plant account that are not retired and still are operating.
 - b. Provide the amount of demolition costs for Tyrone, Green River, Pineville, Cane Run, and Canal, as discussed by Mr. Bellar in his direct testimony at 16-17, that are reflected as a reduction of the accumulated depreciation by

generating unit and plant account at June 30, 2020 in the Company's depreciation study in this proceeding. Provide a copy of all assumptions, data, and workpapers, including electronic workpapers in live Excel format and with all formulas intact.

- c. Confirm that including the demolition costs of retired units as a reduction to the accumulated depreciation reserves of operating generating units has the practical effect of including the costs in rate base and depreciating them over the remaining lives of the operating generating units. If this is not correct, then provide a corrected statement.
 - d. Confirm that the Company's allocation of demolition/decommissioning costs approach to the operating generating units by reducing the accumulated depreciation reserves for those units effectively increases the net book value, and therefore, the taxable value, for property tax expense. If this is not correct, then provide a corrected statement.
 - e. Confirm that if the Company deferred the demolition/decommissioning costs on retired generating units to a regulatory asset, then the costs would not be subject to property tax. If this is not correct, then provide a corrected statement.
 - f. Confirm that demolition/decommissioning costs are not deductible for income tax purposes until incurred.
 - g. Confirm that the collection in revenues of future demolition/decommissioning costs through the net salvage component of the depreciation rates and expense is included in taxable income without an offsetting deduction against taxable income and therefore results in an asset ADIT that is not reversed until a later date when the costs actually are incurred. Explain your response. Confirm also that an asset ADIT increases the rate base and the revenue requirement from the date the demolition costs are collected through depreciation expense until the ADIT finally is fully reversed after all demolition/decommissioning costs are incurred and deducted. Explain your response.
9. Provide a copy of all Excel workbooks in live format and with all formulas intact that have not already been provided by Mr. Spanos, including, but not limited to, the calculations of the accumulated reserve allocations among generating units and plant accounts.
10. Provide the accounts payable outstanding for each month January 2018 through the end of the test year related to the following balance sheet accounts:
- a. Construction work in progress;
 - b. Prepayments; and
 - c. Materials and supplies

11. Refer to the Commission's Order in Case No. 2020-00174 at 10-11 wherein it addresses an adjustment to increase Kentucky Power Company's pension and OPEB expense by \$3.7 million based on a calculation performed by KPCo witness Ms. Whitney addressed in her rebuttal testimony and detailed in her Exhibit_HMW-R3 in that proceeding.
 - a. Provide a calculation for the adjustment to pension expense using the KPCo methodology for the Company, including allocations/charges from LKE, for the test year in this proceeding. Provide all assumptions, data, and workpapers in live Excel format with all formulas intact.
 - b. Provide a calculation for the adjustment to OPEB expense using the KPCo methodology for the Company, including allocations/charges from LKE, for the test year in this proceeding. Provide all assumptions, data, and workpapers in live Excel format with all formulas intact.
 - c. Confirm that a portion of the Company's pension and OPEB costs is charged to expense and a portion is charged to capital.
12. Confirm that the Company has never sought, and the Commission never has authorized, the deferral of a regulatory asset for pension "contributions" in excess of per books pension "costs" in order to true-up the pension costs.
13. Confirm that the Company has never sought, and the Commission never has authorized, the deferral of a regulatory asset for the difference in per books pension "costs" and pension costs recovered through rates from customers.
14. Refer to the Company's response to AG-KIUC 1-54(d) related to the pension regulatory asset recorded as "Regulatory Asset – FAS 158 Pension" in account 182 shown on Schedule B-5.2, page 5 of 6.
 - a. Confirm that the unamortized prior service costs are the portion of the pension liability that has not yet been recorded in pension cost." Confirm that the pension cost calculation includes no return or interest on the prior service cost, but it does include interest on the entire pension liability. If either of these statements are incorrect, then provide corrected statements and all support for the corrected statements.
 - b. Confirm that the net actuarial losses of the plan are reflected in the trust fund assets used to determine the net funding of the pension plan. Confirm that the pension cost calculation includes a return on the trust fund assets and that if there have been losses they are reflected in a lower return on the trust fund assets and thus, a higher pension cost. If either of these statements is incorrect, then provide corrected statements and all support for the corrected statements.

15. Refer to the large increases in the costs for Property Insurance (FERC account 924) and Injuries and Damages (FERC account 925). Refer also to the variance explanations contained in Schedule D-1 for these accounts referencing anticipated premium increases for both categories. Provide copies of all correspondence or reports in the Company's possession on which the assumptions were based.
16. Refer to the large increases in the costs for Outside Services (FERC account 923). Refer also to the variance explanations contained in Schedule D-1 for KU and LG&E for this account referencing several increases in costs in the test year. The explanation for LG&E cost increases read as follows and the one for KU was very similar:

“Increase is primarily within the IT organization due to increases in supplemental contractor expenses for IT Development data cleanup initiatives, IT infrastructure for Enterprise Security Standards effective in 2021 and assessment costs for major capital projects. In addition, the Legal department as a result of COVID-19, which delayed a number of expenses in the base period, delaying some activity during the first half of the year and pushing it later into 2020 or even out into 2021.”

For each of the specific initiatives noted in the Companies' explanations, provide the estimated increases from the base year to the test year related to the initiative and indicate whether those increased cost levels should be considered recurring or not after the end of the test year and explain why or why not.

17. Provide updated actuarial calculations of pension cost and OPEB cost for 2021 and 2022 based on year end 2020 trust fund assets and pension and OPEB liabilities and other relevant updated information. Provide a copy of all correspondence with the Company's actuary, a copy of all reports and schedules, and a copy of all calculations in live Excel format with all formulas intact. If the Company is unable to provide the updated actuarial calculations, then provide the all underlying information necessary to perform the calculations, including, but not limited to, the pension and OPEB trust fund assets and pension and OPEB liabilities by account used to determine the net funded status of each and any assumptions that have been communicated to the actuary, including, but not limited to, the return on trust fund assets and the discount rate for the liabilities.
18. Refer to the Direct Testimony of Mr. Wolfe at pages 11 and 12, wherein he discusses the decline in hazard-related vegetation management unit costs due to the decrease in at-risk ash trees on the electric distribution. Refer also to the response to AG-KIUC 1-257 for KU showing a small reduction in hazard-related vegetation management costs from 2019 to 2020 but then a doubling of the costs from \$1.844 million in 2020 to \$3.686 million in 2021 and increases each year thereafter. Reconcile the apparent discrepancies in the statements from Mr. Wolfe's testimony and the forecasted increases in costs in the response to AG-KIUC 1-257 and explain why there are such high increases in the level of hazard related vegetation management costs starting in 2021.

19. [THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2020-00350]
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27. [THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2020-00350]
28. Refer to the trial balances provided in response to AG-KIUC DR 1-8 for KU. Refer further to page 19 of 30 and to the 2020 monthly data provided for subaccounts 186074 (Cane Run 7 LTPC Asset) and 186075 (Brown 6 and 7 LTSA Asset). Refer also to the attachment to the response to AG-KIUC DR 1-54a which shows the sum of the two subaccounts as account 186 Miscellaneous Deferred Debits LTPC noted above for the months January 2020 through the end of the test year.
 - a. Provide a description of the Cane Run 7 LTPC Asset and provide a copy of the agreement(s) applicable to this asset balance. As part of the description, describe all parties to the agreement and explain what causes the balance to increase and to decrease month over month and why.
 - b. Refer to the 2020 monthly trial balance amounts for the Cane Run 7 LTPC Asset in account 186074. Provide the journal entries to record for each month the increases and decreases to the balances month over month.
 - c. Refer to the 2020 monthly trial balance amounts for the Cane Run 7 LTPC Asset in account 186074. Explain what happened in March 2020 that caused

the balance to decrease from \$20.711 million at the end of February 2020 to only \$2.298 million at the end of March 2020.

- d. Refer to the 2020 monthly trial balance amounts for the Cane Run 7 LTPC Asset in account 186074. Explain all reasons why the monthly balances for the Cane Run 7 LTPC Asset are included as deferred debits in FERC account 186 as opposed to prepaids in FERC account 165.
- e. Describe and provide a copy of all analyses, source documents, and Excel workbooks in live format with all formulas intact used to quantify the monthly LTPC Asset expense accruals to account 186074 and the charges against account 186074 for the forecast portion of the base period, the bridge period between the end of the base period and the beginning of the test year, and the test year. Annotate the expense accruals and charges to the Company's MFR rate base and expense schedules for the base year and test year.
- f. Describe the interaction of the amounts accrued to and charged against account 186074 with the generation outage expense amounts deferred to the regulatory asset as well as all underlying calculations. To the extent this is any interaction, then reconcile the amounts booked to account 186074 to the amounts booked to account 182.3.
- g. Provide a description of the Brown 6 and 7 LTSA Asset and provide a copy of the agreement(s) applicable to this asset balance. As part of the description, describe all parties to the agreement and explain what causes the balance to increase and to decrease month over month and why.
- h. Refer to the 2020 monthly trial balance amounts for the Brown 6 and 7 LTSA Asset in account 186075. Provide the journal entries to record for each month the increases and decreases to the balances month over month.
- i. Refer to the 2020 monthly trial balance amounts for the Brown 6 and 7 LTSA Asset in account 186075. Explain what happened in December 2020 that caused the balance to increase from \$5.001 million at the end of November 2020 to \$10.614 million at the end of December 2020.
- j. Refer to the 2020 monthly trial balance amounts for the Brown 6 and 7 LTSA Asset in account 186075. Explain all reasons why the monthly balances for the Brown 6 and 7 LTSA Asset are included as deferred debits in FERC account 186 as opposed to prepaids in FERC account 165.
- k. Describe and provide a copy of all analyses, source documents, and Excel workbooks in live format with all formulas intact used to quantify the monthly LTSA Asset expense accruals to account 186075 and the charges against account 186075 for the forecast portion of the base period, the bridge period between the end of the base period and the beginning of the test year, and the

test year. Annotate the expense accruals and charges to the Company's MFR rate base and expense schedules for the base year and test year.

1. Describe the interaction of the amounts accrued to and charged against account 186075 with the generation outage expense amounts deferred to the regulatory asset as well as all underlying calculations. To the extent this is any interaction, then reconcile the amounts booked to account 186075 to the amounts booked to account 182.3.
29. Refer to the attachment to the response to AG-KIUC DR 1-48 and further to the base year and test year amounts for capacity-related purchased power amounts from OVEC.
- a. Explain why the capacity-related purchased power amounts from OVEC are projected to increase from \$9.621 million (total Company) in the base year to \$10.239 million (total Company) in the test year.
 - b. Provide copies of source budget information provided by OVEC as well as all other documentation that justifies the increase projected for the test year compared to the base year.
30. Refer to the comparison of jurisdictional O&M expenses by FERC account provided in the response to AG-KIUC DR 1-23.
- a. The amount for Distribution Meter Expenses in account 586 increases from \$9.125 million in the base year to \$9.701 million in the test year. Explain all reasons why an increase of 6.3% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
 - b. The amount for Transmission Overhead Lines Expense in account 563 increases from \$0.803 million in the base year to \$1.106 million in the test year. Explain all reasons why an increase of 37.7% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
 - c. The amount for Transmission Maintenance of Overhead Lines in account 571 increases from \$9.496 million in the base year to \$10.708 million in the test year. Explain all reasons why an increase of 12.8% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
 - d. The amount for Distribution Miscellaneous Expenses in account 588 increases from \$7.002 million in the base year to \$8.492 million in the test year. Explain all reasons why an increase of 21.3% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.

- e. The amount for Meter Reading Expenses in account 586 increases from \$9.256 million in the base year to \$9.902 million in the test year. Explain all reasons why an increase of 7.0% is projected for this account in the test year, especially when base year costs were so much higher than all the other comparative years. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
 - f. The amount for Outside Services Employed in account 923 increases from \$18.041 million in the base year to \$21.333 million in the test year. Explain all reasons why increase of 18.2% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
 - g. The amount for Property Insurance in account 924 increases from \$6.974 million in the base year to \$8.726 million in the test year. Explain all reasons why an increase of 25.1% is projected for this account in the test year. Provide a copy of all support relied on for the amount in the test year and the increase over the base year.
31. Refer to Schedule D-2 at page 7 related to the remove ECR mechanism adjustment #2 amounts for accounts 501 (Fuel) and 502 (Steam Expenses), which are a positive \$514,424 and \$1,569,842, respectively. Explain why expenses are being added for each of these accounts instead of being removed as the adjustment description implies.
32. Please refer to KU Tariff Sheet P.S.C. No. 20, Original Sheet No. 45, "Special Charges." Please explain the reasons that the Company will not provide time pulses ("Time pulses will not be supplied").
33. What would be the cost to the Company to provide time pulses? Include a detailed list of the equipment necessary to provide such time pulses.
34. Is KU aware of any electric utility in Kentucky, or any other state (including any utility owned by PPL), that provides time pulses to its large industrial customers. If so, please identify the names of each such electric utility.
35. Confirm that on January 20, 2021, Edison Electric Institute ("EEI") issued a press release¹ stating that the organization, "welcome[s] the Biden administration's initial actions on climate change, including rejoining the Paris Agreement."

¹ https://energycentral.com/news/edison-electric-institute-supports-biden-administration-executive-orders-climate-change-and?utm_medium=eNL&utm_campaign=DAILY_NEWS&utm_content=0&utm_source=2021_01_25

36. Reference the Attachment to AG-KIUC DR-1-93, pp. 13-14. Confirm that while EEI's invoice to the Companies indicates the amounts EEI spends on "lobbying," it nonetheless fails to indicate the sums EEI spends on (i) regulatory advocacy; and (ii) public relations.²
37. Confirm that the Companies are refusing to disaggregate the amount of ratepayer-funded EEI dues associated with Covered Activities.
38. Provide a breakout of the total amount of ratepayer-funded dues EEI has collected from all member companies by year, for each year since 2005.
39. Provide the total amount of ratepayer-funded dues the Companies paid EEI by year, for each year since 2005.
40. Has EEI's level of funding for Covered Activities decreased, or increased since the last NARUC audit?
41. Confirm that the amount of ratepayer-funded dues EEI collected in 2020 from all member companies exceeded the amount it collected in 2005.
42. Provide all documents that illustrate how EEI utilizes the Companies' ratepayer-funded dues. If such documents are not in the Companies' immediate possession, provide all correspondence, letters, documents and memoranda between the Companies and EEI in which the Companies requested such information.
43. Explain all measures the Companies took to request information from EEI in response to the AG-KIUC's initial and supplemental data requests. If none, explain in complete detail why not.
44. The AG-KIUC are aware that as members of EEI, the Companies have the ability to request data from EEI. Accordingly, please request in writing that EEI provide: (i) its budget for Covered Activities since the date of the last NARUC audit; and (ii) the ratio that the Covered Activities budget bears in relation to EEI's overall budget. If EEI refuses to provide such data: (i) provide such refusal in writing; and (ii) ask EEI to explain why it wants the Commission and the ratepayers who finance the Companies' EEI membership to believe that EEI does not have a budget for Covered Activities.
45. Confirm that only the Companies, by virtue of their membership in EEI, have access to the necessary data, and that the AG-KIUC does not have any such access.
46. Provide copies of all documents handed out at the 2020 EEI Annual CEO Meeting which describe EEI's achievements and accomplishments.

² For purposes of these data requests, the three terms "legislative advocacy," "regulatory advocacy," and "public relations" are hereinafter collectively referred to as "Covered Activities."

47. Provide all evidence that the Companies' ratepayer-funded EEI membership provides a direct benefit to ratepayers.
48. Confirm that the Companies' ratepayer-funded EEI membership provides direct benefits to the Companies' shareholders.
49. Provide a breakdown of the monetary value that the Companies' ratepayer-funded EEI membership provides to: (i) ratepayers; and (ii) shareholders.
50. Explain whether the Companies believe that providing EEI's internally-generated invoice to the Companies satisfies the Companies' burden of proof as to the reasonableness of EEI dues included for recovery. If so, explain the basis for that belief in complete detail.
51. Given that EEI no longer provides a detailed breakdown of its budget depicting the percentages of its budget devoted to each of the NARUC operating categories set forth in NARUC's most recent audit of EEI, explain why the Commission should not use the breakdown set forth in that most recent audit.
52. Do the Companies agree that their ratepayers should not be required to pay the cost of Covered Activities in which EEI and all other dues-requiring organization engage, to the extent those costs exceed the sums the Companies have excluded from their applications? If not, explain why not.
53. Provide a detailed description of all services EEI provided to the Companies both in calendar year 2020, and the services the Companies expect will be provided during the fully forecast test period. Of these services or benefits, provide a detailed breakdown of all benefits that accrue to ratepayers and how, and all benefits that accrue to shareholders and how.
54. Reference AG-KIUC DR 1-97. The answer was unresponsive to the question posed. Provide an answer responsive to the question, and to each subpart.
55. Reference AG-KIUC DR 1-98. Given that the question was not limited to EEI and EPRI, the answer was unresponsive to the question posed. Provide an answer responsive to the question, and to each subpart thereof.

II. COST OF SERVICE AND RATE DESIGN

56. With regard to the Company's response to AG-KIUC DR 1-115, the Companies provided hourly sales (load data) for January 2019, February 2020, and March 2019 through December 2019. In this regard, please:
 - a. explain why February 2019 data was not provided; and,
 - b. provide the data requested in Question 115 items (a) through (l) if available.

Provide your response in executable (Excel) electronic format.

57. With regard to the Company's response to AG-KIUC DR 1-136, the Company indicates that it did not perform the requested analysis for subparts (g) [forecasted Test Period revenues at current rates] or (h) [forecasted Test Period billing determinants] as it relates to negotiated rate or special contract customers. In this regard, please explain where, and how, the revenues for these negotiated rate or special contract customers are reflected in the Company's rate filing and provide all calculations supporting these forecasted revenues including billing determinants for each negotiated rate or special contract customer. Provide your response in executable (Excel) electronic format.
58. With regard to the Company's response to AG-KIUC DR 1-136, the Company indicates that it did not perform an analysis relating to subpart (l) [identification of the class in which each customer is included in Mr. Seelye's electric class cost of service study]. In this regard, are special contract customers' revenues and exogenous characteristics (demands, energy, number of customers, etc.) utilized in any way in Mr. Seelye's class cost of service study and, if so, please identify the amount of each exogenous characteristic for each negotiated or special rate customer along with the class in Mr. Seelye's class cost of service study.

III. ADVANCED METERING INFRASTRUCTURE

59. Refer to the Companies' response to AG-KIUC DR 1-193(a) which states, regarding the level of expense reductions from AMI after the deployment period to which the Companies are willing to commit, "Any further adjustments will be resolved using actual costs and projected savings in the Companies' next base rate cases." This appears to be a commitment that the Companies will reduce future revenue requirements by the savings the Companies are projecting in the current AMI business case. The AG-KIUC would expect such a commitment up through the rate case immediately following the particular rate case in which recovery of AMI deployment costs is first requested (in other words, the second rate case to be filed following full AMI deployment). The AG-KIUC are concerned that several types of benefits will not yet be fully realized in the Companies' books and records at the time they file their first post-AMI deployment rate case in which they request recovery of AMI deployment costs. Please confirm whether the AG-KIUC's understanding and expectation in this regard represent the Companies' commitments. If either the understanding or the expectation cannot be confirmed, please explain in complete detail.
60. Refer to the Companies' response to AG-KIUC DR 1-193(b), which does not appear responsive. As requested, "describe any commitments the Companies are willing to make to measuring actual expense reductions, and the Companies' recommendations on a measurement approach." If the Companies are not willing to make such a commitment, please so state, and explain in detail why not.
61. Refer to the Companies' response to AG-KIUC DR 1-200.

- a. Confirm that a comparison of the costs of building and operating the proposed RF Mesh network to the cost of using public networks from AT&T and Verizon Wireless were not completed. If this cannot be confirmed, please provide any such comparisons.
 - b. The AG-KIUC are aware that new communications network technologies from AT&T and Verizon Wireless are available which dedicate bandwidth to clients such as first responders and utilities. These technologies, including 4gLTE and 5g, and associated capabilities, such as NBIoT (AT&T) and Cat M1 (Verizon) are promoted by suppliers as being in place for future decades, reliable, secure, and impervious to public demands for bandwidth from the non-dedicated portion of the network. (The capability is known generally as “bandwidth slicing”.) AT&T television commercials the AG-KIUC have observed target Police and Fire Departments as potential clients for these “networks with networks.” Provide any technical evaluation of these technologies, or the option to employ them for direct meter communications the Companies completed, as part of its evaluation of the RF Mesh meter communications network option the Companies ultimately proposed.
62. Refer to Exhibit KWB-1. Provide full calculation details by year for the line item “Remaining Net Book Value – Retired & Replaced Meters” on pp. 2 and 3. Provide the response to this question in MS Excel format with no pasted values and all cell formulae working, intact, and available for review.
63. Refer to Exhibit KWB-2. Provide full calculation details by year for the line item “Regulatory Asset Amortization” on pp. 2 and 3. Provide the response to this question in MS Excel format with no pasted values and all cell formulae working, intact, and available for review.
64. Refer to Exhibit KWB-2. Provide full calculation details by year for the line item “Regulatory Liability Amortization” on pp. 2 and 3. Provide the response to this request in MS Excel spreadsheet format with no pasted values and all cell formulae working, intact, and available for review.
65. Refer to the Attachment provided by the Companies in response to AG-KIUC DR 1-206 (a) (a list of meters that were replaced by year from 2015 through 2019 due to failure). Provide this Attachment in MS Excel spreadsheet format with no pasted values and all cell formulae working, intact, and available for review.
66. Refer to the Attachment provided by the Companies in response to AG-KIUC DR 1-206 (a), which is a list of meters that were replaced by year from 2015 through 2019 due to failure. Provide a list of meters that were replaced by year from 2015 through 2019 for any reason. In this list of meters, include identifiers such as: 1) manufacturer; 2) model; 3) type (electromechanical or electronic); 4) phase (single or poly); and 5) reason for replacement. Provide the response to this request in MS Excel spreadsheet format with no pasted values and all cell formulae working, intact, and available for review.

67. Refer to the Companies' response to AG-KIUC DR 1-206 (b), regarding a statement in the Commission's Order dated April 13, 2016 (at p. 11): "With regard to CPCNs, the Commission finds it appropriate for jurisdictional electric utilities to obtain CPCNs for major AMR or AMI meter investments and distribution grid investments for DA, SCADA or volt/var resources." As it pertains to this statement, the Companies' response to AG-KIUC DR 1-206 (b) states "Thus, the Companies considered that it had limited authority to install an AMI meter."
- a. Explain why the roll-out of AMI on a routine, course-of-business basis (for example, as existing meters failed) constitutes a "major" meter investment.
 - b. Explain why the Companies considered the statement referenced in the Commission's Order dated April 13, 2016 as prohibiting individual AMI meter installations in the routine course of business (for example, as individual meters failed), when the Commission's statement clearly specifies "major" meter investments.
68. Refer to the Companies' response to AG-KIUC DR 1-206 (c), which states, "If these meters are replaced in a non-contiguous fashion, as would be expected by replacing failed meters, then they may not communicate and would thus need to be manually read," and, "The other option is to overbuild the communication network." The AG-KIUC is aware that alternatives to communicating with AMI meters installed sporadically throughout a utility service territory – for example, AT&T and Verizon public network rental – are available for use in the event of a routine, course-of-business approach to AMI installation over time.
- a. Confirm that these statements assume the Companies' only option was to build and operate its own "RF Mesh" meter communications network. If this cannot be confirmed, please explain.
 - b. Provide any analysis the Companies completed comparing the costs of: 1) the installation of AMI meters over time, in the routine course of business, as meters failed using the public network rental option for meter communications, to 2) the installation of AMI meters all-at-once using the proposed RF Mesh approach. If the Companies did not complete such an analysis, please so state.
69. Refer to the Companies' response to AG-KIUC DR 1-207 (a), which describes how AMI voltage increases will be used to identify transformers which might fail. The AG-KIUC are aware that voltage variation occurs for many reasons; an increase due to a short in a transformer winding is just one of them.
- a. Explain how the Companies plan to avoid false positives when using AMI voltage data to identify potential transformer failures.
 - b. Estimate the number of total notifications of AMI voltage increases of 7% the Companies anticipate receiving in a year. Provide the basis for this estimate.

- c. Of the notifications the Companies receive which pass any screens for false positives the Companies described in response to subpart (a), explain any other processes the Companies will follow to ensure transformers are not replaced unnecessarily.
70. Refer to the Companies' response to AG-KIUC DR 1-207 (b), which states "The Companies estimate that planned versus reactive replacement of distribution transformers will save on average 1.5 hours of outage time on approximately 320 avoided customer outages annually."
 - a. Calculate the system-wide impact on SAIFI and CAIDI of avoiding 1.5-hour service outage for 320 customers annually.
 - b. Provide the number of distribution transformers the Companies would have to replace prospectively each year to avoid outages due to transformer failures for 320 customers.
 - c. Provide the number of distribution transformers operating on the KU grid as of December 31, 2020.
 - d. Provide the number of distribution transformers operating on the LG&E grid as of December 31, 2020.
71. Refer to the Companies' response to AG-KIUC DR 1-212 (a), which provides an extremely high-level explanation of how annual energy savings from the e-Portal were projected. Provide the actual calculations used to estimate fuel cost savings from the e-Portal on tab "Risk_AMI+AMR_GO" of the Confidential Attachment provided by the Companies in response to AG-KIUC Q-203 (b). Be sure the actual calculations include: 1) the assumed energy reduction percentage used (base case) by customer class; 2) the forecast energy requirements by year, by customer class, over the analysis period, of customers who would be receiving an AMI meter; 3) the assumed, avoided cost of energy for each year of the analysis period; and 4) the pace of AMI meter deployment.
72. Refer to: the Companies' response to AG-KIUC DR 1-213 (d), which states that the Companies plan to implement a dynamic approach to CVR; and to the Companies' response to AG-KIUC DR 1-213 (e), which states that there are no incremental costs associated with CVR implementation. As the AG-KIUC understand it, this means that the Companies are planning only to adjust the load tap changer voltage settings at the head-end of the 404 circuits selected for CVR.
 - a. Confirm the AG-KIUC's understanding. If this cannot be confirmed, please explain.
 - b. Provide support that the modifications of load-tap-changer settings alone can deliver the level of energy reductions the Companies project from CVR (140 GWh to 270 GWh annually per Table 7 of p. 27 of Exh. LEB 3) on just 404 circuits representing just 1/3 of the KU/LG&E energy sales.

- c. Provide a count of the total number of circuits operated in Kentucky by the Companies as of 12-31-2020.
 - d. Describe how the 404 circuits were selected for potential CVR application.
73. Refer to the Companies' response to AG-KIUC DR 1-213 (c), which describes the Companies' approach to calculating fuel cost savings from CVR.
 - a. Provide the actual calculations used to estimate fuel cost savings from CVR on tab "Risk_AMI+AMR_GO" of the Confidential Attachment provided by the Companies in response to AG-KIUC DR 1-203(b). Be sure the actual calculations include: 1) the identities of the 404 circuits identified for CVR; 2) the energy use in 2019 for each of the 404 circuits; 3) the average annual reduction in voltage on each circuit assumed; 4) the energy savings rate as a proportion of voltage reduction assumed; 5) the pace of CVR deployment; and 6) the assumed, avoided cost of energy for each year of the analysis period.
 - b. Of the 404 circuits identified for CVR listed in response to subpart (a), provide the average annual voltage at the load tap changer for i) 2018; ii) 2019; and iii) 2020.
 - c. Of the 404 circuits identified for CVR listed in response to subpart (a), provide the average annual voltage along the circuit length for i) 2018; ii) 2019; and iii) 2020.
74. Refer to the Companies' response to AG-KIUC DR 1-217, which indicates that: (a) "an in-person visit to the customer's premise for disconnects or reconnects will not be required" (to remain in compliance); and (b) "all consumer protections associated with disconnects for non-payment continue."
 - a. Provide the disconnection for non-payment rules with which the Companies must comply today.
 - b. Describe how the Companies conduct disconnects for non-payment today such that these disconnects are compliant with the rules provided in response to subpart (a).
 - c. Describe how the Companies will conduct disconnects for non-payment if AMI electric meters are installed such that these disconnects will be compliant with the rules provided in response to subpart (a).
 - d. Provide full details regarding the calculation of reductions in the Companies' costs on "Field Services" line of tab "Risk_AMI+AMR_GO". Describe how the assumptions made in the calculation mirror the description provided in response to subpart (c).

75. Refer to the Companies' response to AG-KIUC DR 1-227, which claims that the benefits to distribution management resulting from the proposed AMI deployment cannot be tracked and quantified.
- a. The first example provided is feeder load management. The AG-KIUC understand one of the goals of feeder load management to be the deferral of capital spending for distribution capacity increases. Explain why the use of feeder load management to defer capital spending could not simply be tracked by the amount of investments deferred times the number of years deferred, and the associated, avoided revenue requirements for customers estimated, as a benefit measure.
 - b. The second example provided is FLISR. Explain why the customer minutes out saved from FLISR operations couldn't simply be tracked, and translated into system-wide SAIDI and SAIFI impacts annually, as a benefit measure.
76. Refer to Exh. LEB-3, Table 7 on p. 27 (sensitivity analysis), as well as Figure 11 on p. 28 (which provides a probability distribution of sensitivity analysis assumptions).
- a. The Impact value direction (+/-) appearing in Table 7 appear to be reversed. For example, if outside services labor escalation rate is 3% (high case), rather than 2% (base case), one would expect the PVRR differences between the AMI+AMR_GO alternative and the Status Quo alternative to increase – a high case of +\$23.4 Million – rather than decrease (as indicated on Table 7, -\$23.4 Million). Similarly, as fuel savings from CVR and the ePortal increase (high case), one would expect the PVRR Impact to increase. Please investigate all line items and either i) provide a revised Table 7, or ii) explain why Table 7 is correct.
 - b. Line item "CVR Fuel Savings" is limited in the analysis to from 140 GWh to 270 GWh. Please provide the "Impact of Changing Input on PVRR Difference" (Low Case Impact and High Case Impact) if the CVR Fuel Savings are Zero in the low case and 292 in the high case.
 - c. Please reproduce Figure 11 with the CVR Fuel Savings values listed in subpart (b).
77. Refer to the Companies' recommended AMI+AMR_GO proposal generally. The AG-KIUC are aware of several revenue improvement benefits common to almost all utility AMI deployment proposals which the Companies do not quantify in projected AMI deployment benefits. Reduced bad debt, reduced theft, reductions in usage on inactive accounts, and improved meter accuracy are the most common of the revenue improvement benefits of which the AG-KIUC are aware. Explain why the Companies did not estimate and include these benefits among the benefits the Companies attribute to AMI deployment.

78. Refer to the Companies' recommended AMI+AMR_GO proposal generally. The AG-KIUC are aware that AMI data can be used to improve the evaluation, measurement, and validation (EM&V) of Demand-Side Management (DSM) program impact.
- a. Describe any plans the Companies may have to use AMI data to improve the EM&V of DSM program impact.
 - b. Describe any commitments the Companies are willing to make regarding the use of AMI data for DSM program EM&V.
 - c. Explain why the Companies did not tout the use of AMI data as an opportunity to improve DSM EM&V as a benefit of AMI deployment in its proposal.
79. Refer to Table 5 of Exh. LEB-3, p. 24. This Table indicates that under the AMI+AMR_GO alternative, meter reading expenses will fall from \$18.6 million annually to \$500,000 annually, meter services expenses will fall from \$14.3 million annually to \$10.0 million annually, and electric distribution operations spending will fall by \$200,000 annually. Provide the headcount, vehicle, supervisory, and other cost reduction details pre-deployment vs. post-deployment which indicate:
- a. Meter reading expenses will fall by \$18.1 million annually under AMI+AMR_GO;
 - b. Meter services expenses will fall by \$4.3 million annually under AMI+AMR_GO; and
 - c. EDO spending will fall by \$200,000 annually under AMI+AMR_GO.

IV. GENERAL

80. Describe what actions the Companies are taking now, and will take in the future, to address the reliability risk from increased reliance on renewable forms of energy production.
81. Discuss whether a threshold exists in the ratio of renewable energy utilization to that generated from coal and gas resources above which the Companies will become concerned about reliability. If so, specify that threshold.
82. Reference the response to AG-KIUC DR-1-263. Confirm that shareholders will also benefit from the referenced proposed economic development investments.