COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matters of:

ELECTRONIC APPLICATION OF KENTUCKY	)	
UTILITIES COMPANY FOR AN ADJUSTMENT	)	CASE No.
OF ITS ELECTRIC RATES	)	2018-00294

ATTORNEY GENERAL'S INITIAL DATA REQUESTS

Comes now the intervenor, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention, and submits these Initial Data Requests to Kentucky Utilities Co. ["KU," or "the Company"]. Occasional references are also made to both KU's sister company, Louisville Gas & Electric Co. ["LG&E"], and jointly to both Companies ["LG&E-KU" or "the Companies"]. These data requests are to be answered by the date specified in the Commission's Order 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 Office of the Attorney General can provide counsel for 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 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.

(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 the Office of Attorney General.

(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 company has objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify the Office of the Attorney General 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 company, 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 and Filing

Counsel certifies that the foregoing is a true and accurate copy of the same document being filed in paper medium with the Commission within two business days; that the electronic filing has been transmitted to the Commission on November 13, 2018; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding.

This 13th day of November, 2018.

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Assistant Attorney General

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I. AFFORDABILITY

1. Refer to the direct testimony of Robert M. Conroy, pages 7-8, wherein he states that the "Companies work every day to provide safe, reliable, and economical utility service to our customers," and he discusses the Companies' understanding "of the needs of low- and fixed income customers."
   a. Do the Companies consider customer affordability in their operations?
   b. Does the Company consider the interest of low- and fixed-income customers to be unique, in that they perceive the costs and service of utilities, in particular their affordability, differently than other customers?

2. Refer to the direct testimony of Kent W. Blake, page 12, and the Exhibit KWB-1 to his testimony.
   a. Provide the data used to conduct the "benchmarking study."
   b. Provide the annual "benchmarking study" conducted by the Companies "for the past fifteen years."
   c. Provide the names of each vertically-integrated utility holding companies used in the "benchmarking stud[ies]."

3. Refer to the direct testimony of Kent W. Blake, page 17, wherein he states, "the Companies' average residential rates remain some of the lowest in the state."
   a. Provide support for this assertion.

II. OVEC

4. Refer to the direct testimony of David S. Sinclair, page 30, wherein he described "Purchased Power."
   a. Is the Ohio Valley Electric Corporation ("OVEC") purchased power expense considered market economy? If the response is in the negative, why not?
   b. Compare the OVEC purchase power expense by MWh to the market economy purchased power expense for the past 3 calendar years, the base period and forecasted test period.
   c. Explain whether continued operation, and subsequent Company ownership, of OVEC is economic.

5. Regarding the Company's ownership interest in the OVEC:

   a. Provide the annual sums of energy, in MWh, that LG&E and KU purchase from OVEC.
   b. Confirm that LG&E's current ownership interest in OVEC is 5.63% and KU's ownership interest is 2.50%.

c. State whether the annual energy purchases from OVEC are contractually required as a firm commitment. If not, describe under what circumstances LG&E and KU are or may be able to modify or eliminate their OVEC purchases.
d. Provide the rate at which LG&E and KU purchase power from OVEC under the inter-company power agreement ("ICPA"), both with and without sunk costs.
e. Confirm that in 2010, OVEC's owners extended the ICPA to the year 2040.
f. Confirm that in 2040, both OVEC generating stations will be 85 years old.
g. Confirm that in Case Nos. 2011-00099 and 2011-00100,[1] LG&E and KU in their supplemental responses to PSC 2-1 provided a copy of an independent technical review conducted by URS Corporation of OVEC's Kyger Creek and Clifty Creek generating stations ("Report"),[2] which stated that although the stations could continue operating through 2040, major risks included, *inter alia*, any potential "major shift in fuel prices and technologies."[3]
h. Provide the most recent data regarding the extent to which the Clifty Creek and Kyger Creek stations have been depreciated. Provide each station's net book value including the asset and reserve. Also provide the depreciation rates and average service lives.
i. Provide the most recent data regarding the extent to which OVEC's transmission plant has been depreciated. Provide the transmission plant's net book value including the asset and reserve. Also provide the depreciation rates and average service lives.
j. Provide the total energy production (excluding station use) of the Clifty Creek and Kyger Creek stations in MWh for each of the past seven years.
k. Confirm that FirstEnergy Corporation has three unregulated subsidiaries[4] whose combined OVEC ownership interest totals 8.35%.
l. Confirm that on March 31, 2018 FirstEnergy Solutions Corp. filed a petition in the Northern District of Ohio seeking voluntary Chapter 11 bankruptcy.
m. Confirm that the bankruptcy court has granted FirstEnergy Solutions Corp.'s motion to terminate its partnership in OVEC.[5]

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[1] Case No. 2011-00099, Verified Application of Louisville Gas & Electric Co. for an Order Pursuant to KRS 278.300 and for Approval of a Long-Term Purchase Contract, and Case No. 2011-00100, Verified Application of Kentucky Utilities Co. for an Order Pursuant to KRS 278.300 and for Approval of a Long-Term Purchase Contract.
[2] Accessible at: https://psc.ky.gov/PSCSCF/2011%20cases/2011-00099/20110711_LGEs%20Response%20to%20Commission%20Staffs%20Supplemental%20Response%20Question%20No%201.pdf
[3] Report, at 3-4.
[4] Allegheny Energy Supply (3.01%), FirstEnergy Solutions Corp. (4.85%), and Monongahela Power Co. (0.49%).
[5] Accessible at: https://www.eenews.net/assets/2018/05/24/document_pm_02.pdf

n. Confirm that as a result of the granting of the motion described in subpart (m), above, costs that FirstEnergy Solutions Corp. would have paid instead will be re-allocated among the remaining OVEC owners, including LG&E and KU.
o. Provide the additional costs LG&E and KU customers will have to pay as a result of the re-allocation of OVEC costs described in subpart (n), above.
p. Confirm that FirstEnergy Solution's bankruptcy petition included analysis indicating that over the remaining 22-year projected lifespan of the two stations, the remaining owners of OVEC are collectively projected to lose in excess of $5 billion.
q. Confirm that OVEC's plants are currently being subsidized by ratepayers residing in the state of Ohio.
r. Confirm that if the State of Ohio should discontinue the subsidy described in subpart (q), above, a second re-allocation of OVEC costs will occur, causing LG&E and KU customers to pay even more for OVEC's power.
s. State whether OVEC conducts IRP analyses, and if so, with which regulator the IRP plans are filed. If available, provide a link to OVEC's most recent IRP filing.

6. Provide a detailed discussion of how KU accounts for its respective share of OVEC costs, and how these costs are passed on to retail ratepayers.

    a. Identify where in the application all of these costs can be found.
    b. Identify all journal entries the Companies make with regard to OVEC costs.

7. Reference the Bellar testimony, p. 40, lines 3-16, in which he describes a project to add 345kV reactors to the Trimble County transmission substation, designed to prevent an overload of the 12.5 mile-long Trimble County to Clifty Creek 345 kV line during an outage of a neighboring system's transmission line. The line connects Trimble Station to OVEC's Clifty Creek Station. Mr. Bellar states "This is a major transmission line impacting power flows to and from other regional transmission systems."

    a. Given that the $2.9 million project, which apparently is being funded by LG&E-KU ratepayers, provides so much benefit and value to OVEC and other transmission owners and utilities in the region, state whether the Companies have attempted to obtain at least partial funding from these other entities.
    b. Confirm that the project also benefits the PJM regional transmission organization.
    c. State whether any other utilities that will benefit from this project have applied for any funding for the project, for example, through PJM as an RTEP project. If so, provide complete details.

III. GENERAL

8. Refer to the direct testimony of Paul W. Thompson, page 11, wherein he discusses the Companies' "first 500-kilowatt increment for the Companies' voluntary Solar Share Program." Further reference is made to the November 5, 2018, letter from Rick E. Lovekamp filed electronically in Case No. 2016-00274, wherein he states, "the Companies have now completed the land purchase and have issued a Request for Proposal with regard to construction of the first Facility." Further reference is made to the Companies' July 2, 2016, application in Case No. 2016-00274 wherein the Companies stated that they had selected a contractor to construct the facilities, "[t]hrough a competitive request-for-proposals process" and included a copy of the contract between the chosen contractor and the Companies.
    a. Explain why the Companies informed the Commission in the referenced post-hearing correspondence that they had issued a Request for Proposal, when in the application for approval of the Solar Share program they had asserted that they had chosen a contractor and provided a copy of the contract.
    b. Confirm that Exhibit 3 to the referenced application, described as the "preliminary design specifications for Solar Share Facility No. 1" was completed by and bears the name of the chosen contractor from the original "competitive request-for-proposal[]."
    c. Did the Companies terminate the contract pursuant to section 7 of the contract provided as Exhibit 4 of the referenced application? If the answer is in the affirmative, provide a copy of the termination notice provided by the Companies. If the response is in the negative, explain whether the contract is still in place, and if so, what the purpose of the Request for Proposal referenced by Mr. Lovekamp is for.

9. Refer to the direct testimony of Kent W. Blake, pages 10-11, wherein he discusses the Companies' Merger Mitigation Depancaking ("MMD") transmission rate mechanism.
    a. Does the MMD have the effect of reducing transmission revenues paid by certain municipalities, thus increasing the revenue requirement as compared to a scenario where the MMD does not exist?
    b. How many years has the MMD been in effect?
    c. Did the Kentucky Public Service Commission approve the MMD?
    d. Is it fair to describe the MMD as a necessary effect of the Companies' merger activity and withdrawal from the Midcontinent Independent System Operator ("MISO")?
    e. Should the Federal Energy Regulatory Commission ("FERC") approve the Companies' requested elimination of the MMD charges, explain what effect on retail rates the decision will have in the context of this case.

10. Refer to the direct testimony of Lonnie E. Bellar, page 18, wherein he states that the Brown solar facility "was offline due to darkness or weather conditions 51.6 percent of the time."
    a. Explain, in detail, what Mr. Bellar means by "offline."

11. Refer to the direct testimony of Lonnie E. Bellar, page 22, wherein he notes that "Natural gas boiler firing also increases the life of the air heater baskets and the pulse jet fabric filter bags designed to collect particulate from the boilers, as well as improving startup efficiency."
    b. Have these improvements in life expectancy and efficiency been taken into account in the instant application in terms of overhaul schedules, outage-related investments or O&M reductions?

12. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, generally.
    a. Explain why the Companies did not contract with an independent entity or organization with expertise or insight into RTO membership in order to perform an unbiased analysis.
13. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 5 of 40, wherein the study states, "the Companies are market participants in, and regularly transact in, both RTOs."
    a. Explain the Companies' involvement in RTOs since their withdrawal from MISO, including which markets they have participated in, and generally, their level of involvement in those markets.

14. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 7 of 40, wherein one "Key Assumption[]" was that the "Companies did not use generator specific or load-specific Locational Marginal Pricing ("LMP") models.
    a. Explain why this assumption or methodology was reasonable.

15. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 7 of 40, wherein one "Key Assumption[]" was "No changes to the Companies' generating fleet occurring during the analysis time period."
    a. Confirm this assumption is consistent with the Companies' current plans outside of RTO membership.

16. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 15 of 40, wherein it references the Companies' target summer reserve margin of 16 percent to 21 percent.
    a. Is this the Companies' current, future and past target summer reserve margin? If the response is in the negative, provide the summer target reserve margin

currently, the estimate assumed in the Companies' 2018 IRP and the margin for each of the past 5 years.

17. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 18 of 40, wherein the risk associated with Capacity Performance was discussed.
    a. Confirm that along with charges for non-performance, the PJM Capacity Performance construct also provides for payments to generators who perform during assessment intervals.
    b. Cite to the portion of LEB-2 that discusses these payments, as opposed to assessments, associated with Capacity Performance.

18. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 30 of 40, Appendix D, wherein the document states, "although RTO membership is assumed to result in a decrease in the reserves necessary to meet the contingency reserve requirement, the benefit of this reduction in the reserves requirement alone is not a major driver of net costs or benefits."
    c. Confirm that revenues from the capacity auctions of either RTO would be considered "a major driver of net benefits."
    d. Confirm that if the Companies were indeed winter-peaking, revenues derived from the capacity auctions of either RTO would be a larger driver of net benefits than if the Companies 'target reserve margin was based on their summer peak.

19. Reference the final draft MISO 2018 MTEP Report, accessible at the link below.[6] At p. 165, the report states that outside of the regional planning process of the Southeastern Regional Transmission Planning Organization (SERTP), MISO is working with TVA and LG&E on "Market Congestion Planning Study project PC-4" to address "congestion on the Southern Indiana/Kentucky border."

    a. Does the "Market Congestion Planning Study project PC-4" have any LG&E or KU ratepayer impact in the current case? If so, describe in full and identify where in the application it can be referenced.
    b. Explain if any MISO-member utilities would participate in the project.
    c. If the project does not have any rate impact in the current cases, state whether it might in the future, and if so, provide a discussion of the nature of the project, how it would benefit LG&E-KU, and the extent to which LG&E-KU ratepayers would be expected to fund it.

20. Refer to Schedule B-2.6.

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[6] https://cdn.misoenergy.org/MTEP18 Full Report264900.pdf

a. State how many total acres comprise the site described as "Land located at Green River CC GT intended for Generation?"
b. Explain whether either of the Companies own land adjacent to this location, and if so, how many acres.

21. Refer to the direct testimony of Christopher ("Chris") M. Garrett, page 25, wherein he discusses the proposed removal of the "baseline ECR beneficial reuse operating expense credit."
    a. Provide the genesis of this credit, including the Case No. of the matter in which it was first proposed.
    b. Explain the negative impact to KU if it continues the baseline credit.

22. Reference the Bellar testimony, p. 12, wherein he discusses the departure of wholesale municipal customers in 2019. Discuss whether KU has been able to obtain any new load, municipal or otherwise, to replace the load lost due to the departures.

23. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

IX. REVENUE REQUIREMENTS

A. <u>Rate of Return</u>

24. Refer to the direct testimony of Adrien M. McKenzie, generally.
    a. Are the Companies aware of any instance since their 2016 rate cases in which they were unable to attract the capital needed for infrastructure and reliability investments on reasonable terms due to their allowed ROE of 9.7%?
    b. Although Mr. McKenzie's testimony seems to adequately address the risk a utility faces when its allowed ROE is set too low, explain, in complete detail, what risk(s) the Companies and their customers face if the Commission sets the allowed return on equity too high.
    c. Are the Companies aware of any organizations that rate or rank state regulatory commissions?
    d. If the response to subpart c., above, is in the affirmative, provide a discussion of how the Kentucky Commission ranks or rates in such reviews.

25. Refer to the direct testimony of Adrien M. McKenzie, page 3, wherein he cites to both the *Hope* and *Bluefield* cases.
    a. Cite to the specific instances in Mr. McKenzie's testimony where he balanced the interests of investors and consumers.

26. Refer to the direct testimony of Adrien M. McKenzie, page 13, wherein he notes that "Moody's recently lowered its ratings outlook for 24 utilities from 'stable' to 'negative,' and one utility from 'positive' to 'stable.'"
    a. Were either of the Companies any of these 24 utilities referenced?

27. Refer to the direct testimony of Adrien M. McKenzie, pages 16-18, wherein he briefly described LG&E and KU.
    a. Does the fact that the Companies do not operate as a member of an RTO, all else being equal, increase or decrease their risk relative to their peers?

28. Refer to the direct testimony of Adrien M. McKenzie, page 50 & Exhibit No. 5, page 3 of 3, wherein Mr. McKenzie provides his "DCF Cost of Equity Estimates."
    a. Confirm that Mr. McKenzie excluded 13 "low" figures and only 3 "high" figures.
    b. Explain the criteria used to determine which values on Exhibit No. 5 were, as Mr. McKenzie describes them, "illogical."
    c. Provide page 3 of 3, including the previously excluded values.

29. Is the forecast in the application consistent with the version used for quarterly earnings guidance and investor presentations?
    a. Describe the differences.
    b. Discuss the timing of the budget, long range plan and forecasts leading up to the version reflected in the application.
    c. Provide any updates to forecast related to earnings guidance since the Companies' applications were filed. Any response should take into account information offered at the 2018 EEI Financial Conference to be held in San Francisco, California on Tuesday, November 13, at 10 am Pacific Standard Time.

B. <u>Rate Base/Capitalization</u>

30. Refer to the direct testimony of Christopher ("Chris") M. Garrett, pages 4-8, wherein he discusses the Companies' choice of capitalization as the measure of valuation in these matters.
    a. Does the fact that both of the Companies' jurisdictional capitalizations exceed rate base play into the Companies' use of capitalization as the measure of valuation?
    b. Can the Commission and intervenors expect that, should the Companies' rate base exceed capitalization in future rate proceedings, the Companies will continue using capitalization as their measure of valuation?

31. Refer to the direct testimony of Chris M. Garrett, page 39, wherein the proposed extension of the amortization period for the Winter Storm 2009 and Wind Storm 2008 regulatory assets to June 2021 is discussed.
    a. Explain why June 2021 was chosen and is reasonable.

32. Refer to the direct testimony of Kent W. Blake, pages 5- 6.
    a. Provide the tables presented on page 6 for the period June 30, 2018, to April 30, 2020.
    b. Explain why using the midpoints of two test periods to compare capital expenditures is more reasonable or representative than using the 13-month average capitalization for each test period.
    c. Explain why the Companies chose to provide the capital spend using these two test-period midpoints.

33. Refer to the direct testimony of Lonnie E. Bellar, page 3, wherein he mentions "[s]everal recent projects to promote solar generation."
    a. Describe these recent projects.

34. Refer to the direct testimony of Lonnie E. Bellar, page 4, wherein he states, "I will present the details of the capital expenditures using the period January 1, 2018, to October 31, 2019, for the generation, transmission, distribution, customer service and gas operations in my testimony."
    a. Provide the same presentation of details of capital expenditures for the same categories for the time period October 31, 2019, to April 30, 2020.
    b. Provide, by project, the capital expenditures planned for the period May 1, 2019, to April 30, 2020.

35. Refer to the direct testimony of Lonnie E. Bellar, pages 16-17, wherein he describes the planned demolition of retired coal-fired generating units at several locations.
    a. Has the Commission previously approved the demolition of these units?
    b. If the response to 12 (a), above, is in the affirmative, provide the Case Nos. in which Commission approval was received.
    c. If the response to 12 (a), above, is in the negative, explain why the Companies have not yet sought Commission approval for each planned demolition.

36. Refer to the direct testimony of Lonnie E. Bellar, page 17, wherein he discusses a $20.8 million capital project to replace an existing gas transmission line with a new line that "will be placed underneath the riverbed."
    a. Did the Companies request and receive a CPCN for this project?
    b. Provide the cost-benefit analysis conducted by the Companies to determine the efficacy of this project.
    c. Provide the expected remaining service life of the "Brown CT units."
    d. Is the replacement of the parapet wall of Dix Dam included in the referenced project and further included in the $20.8M price tag?

   e. If the response to 13 (d), above, is in the negative, describe the parapet wall replacement project, including whether or not a CPCN was requested and received for the project and any cost-benefit or similar studies as to the reasonableness or need for same.

37. Refer to the direct testimony of Lonnie E. Bellar, pages 17-18, wherein he describes the gypsum dewatering project at Mill Creek.
    a. Provide a citation to the Case No. in which the Companies requested and received approval for this project.

38. Refer to the direct testimony of Lonnie E. Bellar, pages 36-37, wherein he discusses the Companies' TSIP and investment in their "aging and deteriorated transmission system infrastructure."
    a. Explain, in complete detail, how the Companies prioritize transmission upgrades and enhancements, including the weighting and criteria used.
    b. Provide the current ten (10) most prioritized transmission upgrades, replacements or enhancements, whether or not those projects are included in the TSIP. Each project should indicate the size and scope of the project, including the estimated capital and O&M costs, and note whether the project is included in the Companies' TSIP.

39. Refer to the direct testimony of Lonnie E. Bellar, page 40, wherein he describes the Clifty Creek 345kV overload risk.
    a. Explain whether the Companies anticipate reflecting this investment in capitalization for ratemaking purposes.
    b. Explain whether there will be offsetting revenues from this $2.9M project, and if so, from whom those revenues will be recovered.
    c. Explain the need for and use of the 345kV Trimble County to Clifty Creek line.

40. Refer to the direct testimony of Lonnie E. Bellar, page 45.
    a. Provide the same table with capital expense additions in transmission, by company, calculated based on the 13-month average capitalization as used in the test period of the last rate cases, compared to 13-month average capitalization as used in the test period of these cases.

41. Refer to the direct testimony of Lonnie E. Bellar, page 50, wherein he discusses the investments and capital costs related to the Companies' DA projects.
    a. Provide, broken out by company, the original capital estimate for the DA project, the actual capital expended to-date, the estimated investment through completion of the project, the estimated in-service date and the actual in-service date.

   b. Provide the estimated completion date for the project DA, by company if the date for each is different.

42. Refer to the direct testimony of Lonnie E. Bellar, page 50, wherein he states, "A proposed expansion of DA is discussed in the Distribution Plan attached to my testimony."
   a. Are the Companies requesting in this matter amendments to the CPCNs they received for the current DA program? If the response is in the affirmative, provide a citation to the record where they have made their request. If the response is in the negative, explain why the Companies believe they can expand the DA program without Commission approval.
   b. Explain why an expansion of a yet-completed plan is in the best interest of the Companies' customers. Any response should include the cost-benefit analyses conducted by the Companies to evidence as much.

43. Refer to the direct testimony of Lonnie E. Bellar, pages 51-52, wherein he discusses the Distribution Substation Transformer Contingency program.
   a. Provide the cost-benefit justification for the Companies investing $37M in redundant, spare equipment.
   b. Provide the specific criteria used to determine that the redundant, spare equipment should be recorded as capital asset.

44. Refer to the direct testimony of Lonnie E. Bellar, pages 52-53, wherein he discusses the DCC and the costs thereof.
   a. Provide a breakdown of the $13M capital cost, including how the costs will be allocated between each company.

45. Refer to the direct testimony of Lonnie E. Bellar, pages 53, wherein he discusses the planned "additional building on existing property at the South Service Center in Louisville."
   a. Explain this proposed building, including the need for it to service customers. Any response should detail the cost justification for the investment, including detail of the expected savings resulting thereof.
   b. Further, provide a breakdown of the estimated capital cost, including how the costs will be allocated between each company.
   c. Are any capital costs or O&M expenses included in the forecasted period for recovery in this matter? If the response is in the affirmative, provide citation to all such costs.

46. Refer to the direct testimony of Lonnie E. Bellar, page 53, where he states that the DCC "facility is specifically designed to house 12-hour shift employees."

a. Explain what Mr. Bellar intended to indicate with this statement, including what design differences were necessary or implemented to accommodate "12-hour shift employees."

47. Refer to the direct testimony of Lonnie E. Bellar, page 55.
    a. Provide the table presented on page 55 for the period June 30, 2018, to April 30, 2020.

48. Refer to the direct testimony of Lonnie E. Bellar, page 56, and Exhibit LEB-6 to Mr. Bellar's testimony.
    a. Provide the same exhibit but with an additional column down the right hand side providing the amounts for June 30, 2018, to April 30, 2020.
    b. For which of the projects listed have the Companies requested and received CPCNs?
    c. For which of the projects listed do the Companies intend to request a CPCN?

49. Contributions in Aid of Construction ("CIAC"): Provide the CIAC balances for each month in 2016, 2017, and 2018 YTD for each company. Explain how CIACs are reflected in the base year and forecasted cost of service.

50. Do the Companies recover income taxes assessed on CIAC in base rates?
    a. If the response is in the affirmative, provide the amount of taxable CIAC income reflected in the base and forecasted test years.
    b. If the response is in the negative, how do the Companies recover income taxes assessed on CIAC?

51. Reference the Bellar testimony at p. 52, wherein he discusses the ongoing construction of a new Distribution Control Center located adjacent to the existing Transmission Control Center. State whether the Companies have obtained a CPCN for the construction of this facility.

52. Reference the Bellar testimony at p. 53, wherein he discusses the construction of two new facilities for distribution operations. State whether the Companies intend to file a petition with the Commission to obtain a CPCN for the construction of these facilities.

53. With regard to Exhibit LEB-6, "Smart Grid Investments" attached to the Bellar testimony, identify for which projects the Companies either have obtained, or plan to obtain a CPCN.

54. Reference the Bellar testimony, p. 6, wherein he discusses the construction of a new power generation technical training center at Trimble Station, and of a new safety and technical training center at the LG&E East Operations Center.

   a. Was any thought given to combining the two new facilities into one? If not, why not?
   b. Will the Companies be filing an application for a CPCN for one or both of these facilities? If not, explain why not.

55. Refer to the direct testimony of Chris M. Garrett, page 40, wherein he discusses KU's proposal regarding Brown Units 1 and 2, stating that the proposal is "consistent with the regulatory treatment provided for the closure of Green River," and citing the "Settlement Agreement, Stipulation, and Recommendation" that provided for that regulatory treatment.
    a. Confirm that section 4.13 of that agreement specifies that it "shall not have any precedential value in this or any other jurisdiction."
    b. Other than KU's assertion that the proposed amortization is period because of the treatment of Green River, what evidence specific to Brown Units 1 and 2 support an amortization of three years.
    c. Which expert(s) in this matter provides support for the reasonableness of the deferral accounting requested for the Brown Units 1 and 2?

56. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

57. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

C. <u>Cash Working Capital/Lead-Lag Study</u>

58. Cash Working Capital. Provide a reconciliation of total operating expense reflected in the forecasted cost of service (Schedule C.1) to the total expenses lagged in the Companies' requested cash working capital allowances (Schedule B-5.2).

	Schedule C.1	Schedule B-5.2	Difference
	(A)	(B)	(C)
KU			
Total O&M Expenses	884,639,921	877,467,419	(7,172,503)
Total Depreciation and Amortization Expense	268,954,148	347,669,956	78,715,807
Total Taxes Other Than Income	43,682,224	45,617,136	1,934,912
Total Income Tax Expense	24,634,790	46,746,420	22,111,630
	1,221,911,084	1,317,500,930	95,589,847
LG&E - Electric			
Total O&M Expenses	627,292,494	635,106,277	7,813,783
Total Depreciation and Amortization Expense	155,800,380	228,887,386	73,087,006
Total Taxes Other Than Income	34,932,925	36,773,893	1,840,968
Total Income Tax Expense	24,281,656	43,595,949	19,314,292
	842,307,455	944,363,505	102,056,050
LG&E - Gas			
Total O&M Expenses	93,616,747	221,950,793	128,334,046
Total Depreciation and Amortization Expense	38,418,048	40,461,755	2,043,707
Total Taxes Other Than Income	11,768,640	12,584,590	815,950
Total Income Tax Expense	5,322,515	7,982,424	2,659,909
	149,125,951	282,979,562	133,853,612

59. Schedule B-5.1 reports the inclusion of Fuel Stock, Gas Stored Underground, Materials and Supplies, and Prepayments under Other Working Capital Allowances on Schedule B-1. Have the test period operating expenses associated with these items been removed from cash working capital determined under the lead-lag method on Schedule B-5.2?
    a. If the response is in the affirmative, explain why there are lagged expenses related to Fuel, Non-Fuel Commodities, Purchased Power, and Purchased Gas in cash working capital, as computed under the lead-lag method.
    b. If the response is in the negative,
        i. Explain why not removing the related expense from cash working capital under the lead-lag method does not lead to double counting in rate base?
        ii. Provide the related expense reflected in each lagged item on Schedule B-5.2 for the forecast test year.

60. Schedule B-5.2 reflects the inclusion of average balances related to Pension, OPEB, Regulatory Debits, and Regulatory Assets/Liabilities under Additional Cash Working Capital Items. Have the test period operating expenses associated with these items been removed from cash working capital under the lead-lag method?
    a. If the response is in the affirmative, explain why there are lagged expenses related to Pension, OPEB, Regulatory Debits, Amortization of Regulatory Assets, and Amortization of Regulatory Liabilities in cash working capital, as computed under the lead-lag method.
    b. If the response is in the negative:

i. Explain why not removing the related expense from cash working capital under the lead-lag method does not lead to double counting in rate base.
ii. Provide the related expense reflected in each lagged item on Schedule B-5.2 for the forecasted test year.

61. The adjustment to remove ECR Cash Working Capital is based on the 1/8th principle, rather than the lead-lag method.
    a. Provide a justification for the difference in methodology.
    b. If the operating expenses proposed in base rates are synchronized with lagged expenses, would it be fair to say the ECR adjustment in cash working capital is unnecessary?

62. Refer to the direct testimony of witness William Steven Seelye, page 102, wherein he states, "Mr. Garrett provided the balance sheet analyses used for the study of cash working capital based on amounts from the Companies' forecast." Provide a copy of the referenced balance sheet analyses.

63. Refer to the direct testimony of witness William Steven Seelye, page 104, wherein he indicates the revenue lag includes a "bank lag, which is the period from when the customer payment is received to when the Companies have access to funds."
    a. Provide bank documentation or other evidence to support the appropriateness of adding one day to the revenue lag.
    b. Do the expense leads measure the bank lag associated with the period from when vendor payments are disbursed to when the Companies no longer have access to the funds?

64. Refer to Exhibit WSS-36 which presents the individual revenue lags and expense leads developed for each Company.
    a. For each item with an expense lead of 0 (e.g., pension and OPEB expense, depreciation, amortization, and deferred taxes), clarify whether the intention is to reflect an exclusion from cash working capital or an actual expense lead of 0 days in the computation.
    b. If the item with an expense lead of 0 should be reflected in the computation as shown in Schedule B-5.2, explain and provide supporting workpapers for the determination of 0 days.

65. What is the statutory payment date(s) for the KPSC Assessment?

66. What are the statutory payment dates for sales tax, school tax, and franchise fees?

67. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

D. Operating Revenues

68. Refer to Schedule C-1, sponsored by Chris M. Garrett, in which "Electric Sales Revenue" is proposed to increase, but "Other Operating Revenues" is proposed to decrease.
    a. Explain why it is reasonable to assume Other Operating Revenues will decrease in the forecasted test period.

69. Refer to the direct testimony of Chris M. Garrett, pages 26-27, wherein he discusses the Companies' adjustments to operating revenues "that concerns OSS revenues related to the ECR calculation." Mr. Garret notes that the adjustments were performed "in a manner generally consistent with the methodology" used in the 2009, 2012, 2014 and 2016 base rate cases.
    a. Explain what differences exist between previous methodologies used in the past base rate cases cited and the methodology used in these matters.

70. Refer to the direct testimony of Lonnie E. Bellar, page 20, wherein he describes the revenues the Companies derive from the sale of ash.
    a. Explain why these revenues are reflected in the environmental surcharge mechanism and not through base rates.

71. Refer to the direct testimony of Lonnie E. Bellar, pages 20-21, wherein he discusses refined coal facilities and the actual or anticipated revenues from same.
    a. Provide citations to the test year where the revenues or anticipated revenues from the Ghent, Trimble County and Mill Creek stations are incorporated.
    b. Explain whether these revenues or anticipated revenues are reflected or anticipated to be reflected in base rates or through the environmental surcharge

72. Reference the Bellar testimony, p. 21, wherein he discusses refined coal projects at Ghent, Trimble and Mill Creek.

    a. Have the Companies been able to quantify any additional savings arising from reduced mercury and NO_X emissions? If not, are the Companies aware of whether any other utilities' coal-fired generation stations utilizing similar refined coal systems have been able to achieve any such emission reductions?
    b. Have the companies been able to achieve any additional savings through the Section 45 Production Tax Credit? Provide a quantification of any such savings, and indicate where in the application they can be found, and the accounting treatment afforded.

E. Operating Expenses

73. Refer to the direct testimony of Chris M. Garrett, page 32, wherein he discusses advertising expenses.
    a. Did the Companies remove all advertising expense, or only that advertising expense that did not produce a "material benefit" to ratepayers.
    b. If the response to subpart a., above, indicates the latter, provide the advertising expense not removed for ratemaking purpose, including the rationale for each expense that it produces a "material benefit" for ratepayers. If necessary, break out these expenses and explanations by utility.

74. Refer to the direct testimony of Chris M. Garrett, page 37, wherein he states, "major outages typically occur on an eight-year cycle."
    a. Provide evidence that outages occur on an eight-year cycle, rather than a shorter or longer schedule.
    b. Provide the historical expenses for years 2013 through 2018 and forecasted expenses for years 2018 through 2024.
    c. Explain why amortizing the regulatory deferrals over the same period as the "eight-year major outage cycle" is reasonable.

75. Refer to the direct testimony of Lonnie E. Bellar, page 19, wherein he states that "[i]n the calendar year 2018, the Companies have generated more than $11.4 million for the benefit of customers as a result of Off-System Sales ("OSS") of power produced by the Companies' generation facilities.
    a. Explain if the $11.4 million amount is the amount of profit in total earned from OSS in 2018, or the amount allocated to customers.

76. Refer to the direct testimony of Lonnie E. Bellar, page 30, wherein he states, "the Companies project operating expenses related to meter readers and field service contracts to significantly increase over current spending on these services." Further reference Schedule C-2.1 Page 4 of 12 and Page 10 of 12.
    a. Other than the slight change in jurisdictional percentage, explain and provide support for the increase in METER READING EXPENSES located on line No. 106 on both referenced pages of Schedule C-2.1.

77. Vegetation Management: Provide the following information related to Vegetation Management non-storm related O&M and capital expenditures. Provide this information separately for Transmission and Distribution.

a. The accounting policy for each company that determines what Vegetation Management expenditures are charged to Capital and what are charged to O&M.
b. For O&M Expenses:
    i. The total dollars budgeted by company, by year, for 2013–2017 and 2018 YTD.
    ii. The total dollars spent by company, by year, for 2013–2017 and 2018 YTD.
    iii. Please explain over/under variances from budget by company, by year, by functional area (Transmission, Distribution).
c. For Capital:
    i. The total dollars budgeted by company, by year, for 2013–2017 and 2018 YTD.
    ii. The total dollars spent by company, by year, for 2013–2017 and 2018 YTD.
    iii. Please explain over/under variances by company, by year, by functional area (Transmission, Distribution).
d. Explain the Companies' methodologies and policies regarding what level of detail each Company plans and budgets for Vegetation Management.

78. Refer to Attachment to Filing Requirement 807 KAR 5:001 Section 16(7)(c) I. Page 214 of 235.
    a. Explain why the Companies expect a $3.5M increase in "Total O&M Expense – Mgmt. View" between actual 2017 and forecast 2018. Any response should explain the more than $2M increase in "Outside Counsel" between the two periods.

79. Refer to Attachment to Filing Requirement 807 KAR 5:001 Section 16(7)(c) I. Page 215 of 235.
    a. Explain the significant increase in "Regulatory" expenses between the actual 2017 expenses and the increase to 2018 forecast and further increase in 2019 and beyond.
    b. Explain the doubling of "All Other" expenses for 2018 forecast compared to 2017 actual.

80. Refer to Attachment to Filing Requirement 807 KAR 5:001 Section 16(7)(c) I. Page 213 of 235, wherein "Major Assumptions" for the 2019 General Counsel Operating Plan states in part:

    External Affairs
    - Expectation that at least one 2019 legislative issue will require modest outside communications agency spending
    - Convergence of legislative, regulatory and legal issues expected to continue (e.g. Solar Share and Planning and Zoning legislation, change in Basic Service Charge and legislations

limiting the same, potential change in net metering statute requiring filing of new tariffs, etc.).

a. Are the Companies requesting recovery of anticipated costs of engaging on legislation, including "communications agency spending" in the forecasted period?

81. Directors' and Officers' ("D&O") Liability Insurance: Does the cost of service include any premium costs for D&O insurance either direct charged or allocated? If the response is in the affirmative, provide the following items:
    a. Amount included in the base year and forecasted period. If the amount is allocated, provide the allocations.
    b. List of officers and directors covered by the insurance.
    c. List of acts covered by the insurance.

82. Refer to the direct testimony of Paul W. Thompson, page 10, wherein he states the "Companies are long-standing supporters of and leaders in economic development in Kentucky."
    a. Do the Companies recover through rates specific expenses, investments, monies, salaries, etc. dedicated exclusively or in part to economic development activities?
    b. If the response to 4 (a), above, is in the affirmative, indicate where in the Companies' applications those monies are located.

83. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 32 of 40, Appendix D, wherein the document discusses the Companies' "plans and processes . . . to address current and future environmental and regulatory requirements."
    a. Cite to the portion of the Exhibit where the Companies compared the costs and benefits associated with this variable, particularly where they compared their own "plans and processes" to those that would be administered or adhered to if they were members in an RTO, such as those envisioned by EKPC.

84. Does the Company use credit cards that include rebates? If the response is in the affirmative, provide the following items:
    a. Amount of rebate reflected in the cost of service base year and forecasted period. If the amount is allocated, provide the allocations.
    b. Actual credit card rebates by year for 2016, 2017, and 2018 YTD. For each year, state the expense accounts where these credit card rebates are reflected and provide a detailed breakdown of those expense accounts.

85. Regarding uncollectibles:
    a. Explain how the Bad Debt Expense of 0.18% used in the development of Schedule H-1 was derived. Provide the supporting documentation for the derivation.
    b. Why is KU and LG&E (gas and electric) bad debt expense used on Schedule H-1 the same if the actual history of bad debt is different as shown in the response to PSC-1-49?
    c. Refer to the 2015 Gas Operations % of bad debt to revenue: Explain why the Reserve Account balance was significantly higher in 2015 than the Reserve in 2016 and 2017.

86. Is it possible, based on the cost allocation manual and service agreements in place, for more than one service company (among LKS, PPL Services, and PPL EU Services) to provide the same kind of services to KU and LG&E?
    a. If the response is in the affirmative, fully describe the safeguards in place to prevent more than one service company from allocating duplicate charges for the same service.
    b. If the response is in the negative, fully explain the delineation and differentiation of services provided by each service company.

87. Provide a narrative explaining the details and how the amounts were estimated for the categories as shown on the Schedules of Rate Case Preparation Costs (Response to Question No. 59[b]). In the narrative, provide purpose and give examples. For example, regarding the Newspaper Advertising category, explain the purpose and content of the advertising, how many newspapers are involved, how many ads and iterations per paper are required, and what the average cost per ad is.

88. Reference Case No. 2018-00120,[7] in which the named complainants alleged that LG&E-KU paid for certain advertisements regarding House Bill 227 of the 2018 General Assembly, Regular Session (Ky. 2018), for the purpose of promotional, political or institutional advertising as set forth in 807 KAR 5:016.

    a. State whether one or both companies are seeking rate recovery for any expenses associated with the running of these advertisements or these type of advertisements. If the response is in the affirmative, provide the amount thereof and identify where in the application these expenses can be found.

89. State whether LG&E-KU considered any alternatives to moving to a cycle-based transmission vegetation management plan. If alternatives were considered, identify the alternatives, discuss their respective merits, and state why the Companies rejected them.

[7] In re: Complaint of Andy McDonald, et al., vs. Kentucky Utilities and Louisville Gas & Electric. Co.

90. Confirm that in KU rate case 2003-00434, the Commission in its Final Order dated June 30, 2004,[8] relying in part on data broken down by NARUC operating expense category, at p. 44-45 removed 45.35% of KU's dues paid to Edison Electric Institute ("EEI"), for a total exclusion of $67,044, because EEI applied that portion of the dues KU paid toward: (i) legislative advocacy; (ii) regulatory advocacy; and (iii) public relations [hereinafter jointly referred to as "covered activities"].

91. Confirm that since 2007, EEI no longer prepares the same breakout of its activities by NARUC operating expense category.

    a. For each rate case since 2007, provide the allocation the Companies utilized in determining the exclusion of particular EEI dues.
    b. Provide a narrative explanation of the bases used for each rate case allocation provided in response to subpart a., above.

92. Reference FR 16(8)(f), Sch. F-1 of the current application.

    a. Confirm that in the base period, KU paid $400,967 in jurisdictional dues to EEI, and excluded $64,343.85.
    b. Confirm that for the forecasted period, KU seeks to recover $420,215.55 of the jurisdictional dues it believes it will pay to EEI, and to exclude $70,071.48.
    c. Confirm that for both the base period and the forecasted test period, EEI has engaged in, and will continue to engage in, *inter alia*, covered activities.
    d. Confirm that all portions of the EEI dues KU proposes to exclude for the forecasted period are non-jurisdictional.
    e. If subpart (d), above is so confirmed, explain why the non-recoverable portions of EEI dues identified here are not recoverable in KU's other jurisdictions.
    f. Since EEI no longer breaks out its activities by NARUC operating expense category, provide the basis for KU's proposed exclusion of $70,071.48 in EEI dues from the forecasted test period. Provide copies of all documents supporting both the amount of KU's proposed exclusion, and the amounts of EEI dues KU suggests should be included for recovery.
    g. Confirm that based on Commission precedent of excluding 45.35% of EEI dues, KU should exclude $190,567.76 from the forecasted period.

93. Reference FR 16(8)(f), Sch. F-1.
    h. For the Base Period category, fully identify each vendor falling into the "Various Vendors" and "Other Non-Specific KU Dues" categories, as to both recoverable and not recoverable dues.
    i. For both the base and forecasted periods, fully identify all vendors falling in the "Other Non-Specific KU Dues" category.

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[8] Accessible at: https://psc.ky.gov/order_vault/Orders_2004/200300434_06302004.pdf

j. Confirm whether Electric Power Research Institute (EPRI) engages in any one or all of the covered activities. If confirmed as to any one or more of such covered activities, provide the amount of KU dues that EPRI applies to the covered activities, both in dollar terms and percentages of total dues.
k. Confirm that Hunton & Williams, LLP has a lobbying arm/affiliate. Identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
l. Explain whether North American Transmission Forum engages in covered activities. If so, identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
m. Explain whether Steptoe & Johnson LLC engages in covered activities. If so, identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
n. Confirm that the Utility Air Regulatory Group (UAR) engages in covered activities. Identify the amount of KU dues that UAR applies toward covered activities, both in terms of dollars and percentages of total dues.
o. Confirm that the Utility Water Act Group (UWAG) engages in covered activities. Identify the amount of KU dues that UWAG applies toward covered activities, both in terms of dollars and percentages of total dues.
p. Explain whether the Midwest Ozone Group (MOG) engages in covered activities. If so, identify the amount of KU dues MOG applies toward covered activities, both in terms of dollars and percentages of total dues.
q. Explain whether the Utility Solid Waste Activities Group (USWAG) engages in covered activities. If so, identify the amount of KU dues that USWAG applies toward covered activities, both in terms of dollars and percentages of total dues.

94. Provide copies of the Annual Reports of EEI, EPRI, and of every other organization which require the Companies to pay dues [hereinafter collectively referred to as the "Dues Requiring Organizations"] since the conclusion of the Companies' last rate case.

95. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

96. For each Dues Requiring Organization, provide: (i) the amount of dues the Companies paid during the base period; (ii) the amount they are asking to be recovered from customers during the forecasted period. Provide the complete basis for KU's determination of whether dues should be recoverable or not recoverable.

97. Provide a copy of the formula(s) used to compute, and the actual calculation of the dues the Company paid to each Dues Requiring Organization since the conclusion of the Company's last rate case.

98. Provide a complete copy of invoices received from each Dues Requiring Organization since the conclusion of the Company's last rate case.

99. Provide any and all documents in the Companies' possession that depict how each Dues Requiring Organization spends the dues it collects, including the percentage that applies to all covered activities.

100. Provide a detailed description of the services each Dues Requiring Organization provided to the Company since the conclusion of the Company's last rate case. Of these services or benefits, state which benefits accrue to ratepayers, and how.

101. Provide a list of all presentations, webinar recordings, briefing books, policy memos, and white papers that each Dues Requiring Organization provided to the Companies since the conclusion of their last rate cases.

102. Has the Company included in operating expenses any amount for: (i) EEI Media Communications, and (ii) any similar division of any other Dues Requiring Organization?

    a. If so, state the amount, indicate in which account this has been recorded, and provide a citation to any and all Commission Orders or other authority upon which the Companies are relying for the inclusion of such expense in the test period.
    b. If not, provide an estimate of how much of the Company's dues are being spent on media or public relations work.

103. State whether the Company is aware whether any portion of the dues it pays to any Dues Requiring Organization are utilized to pay for any of the following expenditures, and if so, provide complete details:

    a. Influencing federal or Kentucky legislation;
    b. Any media advertising campaigns backing the Companies' or the Dues Requiring Organization's position on net metering;
    c. Expenditures on "We Stand For Energy," or "Defend My Dividend," public relations, advocacy efforts or other covered activities;
    d. Contributions from EEI, EPRI or other Dues Requiring Organizations to third-party organizations and contractors including any of the expenditures identified in a. – c., above.

104. Since the conclusion of the Company's last rate case, how much has EEI paid for its efforts to "rebrand" the utility industry? Include in your response payments to external public relations firms as well as the associated salary to any EEI staff involved in contracting, coordinating with, or promulgating internally or externally the rebranding campaign effort.[9]

105. Do the Company's EEI dues contribute to the salary, benefits and expenses of the EEI Executive Vice President for Public Policy and External Affairs, or any other EEI officer or employee who has led an effort EEI undertook to rebrand the utility industry?

106. List all travel and entertainment expenses that Company employees incurred in the base period and are included in the forecast period, or that are expected to be incurred and included in the forecast period, in relation to Dues Requiring Organization activities. Show accounts, amounts, descriptions, person, job title and reason for the expense. Provide a copy of applicable employee time and expense reports and invoices documenting such expenses.

107. Is the Company relying upon any NARUC reports or other studies for the exclusion from or inclusion in rates of a portion of its dues payable to EEI, or to any other Dues Requiring Organization? If so, provide a copy of such report and indicate how the report's recommendations have been included in its filing.

108. Do any of the Company's personnel actively participate on Committees and/or perform any other work for any Dues Requiring Organization or any other industry organization to which the Company belongs, including but not limited to EEI?

a. If so, state specifically which employees participate, how they are compensated for their time (amount and source of compensation), and the purpose and accomplishments of any such association related work.
b. List any and all reimbursements received from industry associations, for work performed for such organizations by Company employees.

109. [*THIS REQUEST INTENTIONALLY LEFT BLANK IN ORDER TO MAINTAIN NUMBERING WITH CASE NO. 2018-00295*]

[9] See, e.g., https://www.huffingtonpost.com/entry/messaging-utilities-solar-power_us_56f45cd6e4b014d3fe22b572

F. Compensation

110. Refer to the direct testimony of Lonnie E. Bellar, page 27, wherein he discusses the starting pay for the Companies' Customer Representatives.

a. Under what category of employees (i.e. hourly, exempt, salary, etc.) do Customer Representatives fall under in reference to wages in rate case applications?

111. Refer to the direct testimony of Lonnie E. Bellar, page 28, wherein he discusses the hourly wage increases for Customers Representatives.

a. Where is this adjustment located in the application?

112. Regarding findings of the Willis Towers Watson ("WTW") Target Total Cash Compensation Study, the direct testimony of Gregory J. Meiman, page 10, states, "The Companies' use of base salary and target incentive compensation as its primary pay vehicles for employees is consistent and aligned with market pay vehicles used by utility and general industry peers."

a. Identify the list of utility peers used in the comparison.
b. Identify the criteria for the "utility peers" that WTW used to qualify them as peers for the study's comparative purposes.

113. Refer to the direct testimony of Gregory J. Meiman, page 6, wherein he testifies that costs to train call center reps is $16,000 per person. Provide a detailed breakdown for how this cost was derived. Include all workpapers in Excel format, with formulas intact and cells unprotected and with all columns and rows accessible.

114. Refer to the direct testimony of Gregory J. Meiman, page 6, wherein he testifies that the three-year average turnover rate in the call center was 13.4%, excluding retirements. Mr. Meiman also testifies that the Companies determined compensation paid to those individuals was below market (page 6, line 17) and that adjusting their wages "to become market competitive . . . will reduce turnover costs and allow for uninterrupted service for our customers."

a. Explain in detail how Mr. Meiman determined that call center employees' pay was below market. Provide all supporting documentation.
b. Explain how Mr. Meiman determined that the below-market compensation was the cause of the turnover rate (e.g., exit interviews or surveys)? Any response should provide all supporting documentation.

115. Refer to the direct testimony of Gregory J. Meiman, pages 6-7, wherein he explains the Companies' compensation philosophy. In that discussion, he states that the policy has been in effect since 1997, regularly reviewed, and used for compensation decisions, which are supported by various levels of approval. Mr. Meiman concludes

that the policy results in "ensuring base salaries are competitive based on the nature and responsibilities of the employee's position and are fair relative to the pay for other similarly-situated positions within the organization."

a. If the Companies' compensation philosophy ensures competitive and fair pay as stated in testimony, provide the reason that the call center employee compensation had been below market for three years, as stated on page 6.

116. Refer to the direct testimony of Gregory J. Meiman, page 7, wherein he testifies that job pay midpoints are established using external market compensation data "of the national general or utility industry."

a. What determines whether the Companies use the national general compensation data as opposed to the utility industry compensation data?
b. Specifically which positions or groups of positions use national general compensation data as opposed to utility industry compensation data?
c. Is the compensation data used to establish job pay midpoints based on a set of criteria limiting the comparison to similar utilities (e.g., within the region)? If the response is in the negative, explain.
d. If compensation data comparison is limited to similar utilities, what is the criteria for types of industries included in the national general compensation data?
e. If compensation data comparison is limited to similar utilities, what is the criteria for utility peers to be included in the utility industry compensation data?

117. Refer to the direct testimony of Gregory J. Meiman, page 12, wherein he testifies that the Team Incentive Award ("TIA") Plan removed ties to financial performance, e.g., earnings per share and net income.

a. Provide examples of former incentive criteria for positions in which performance ties to financial performance existed, and also provide current adjusted incentive criteria for those same positions.
b. Provide the Individual and Team Effectiveness criteria for the TIA Plan for all Senior Managers in Electric Distribution and Energy Supply and Analysis.
c. Indicate whether any incentive awards or other compensation provided for any employees who are part of the TIA Plan receive stock-based awards. If so, indicate specific type of stock (e.g., restricted).
d. Explain whether any employees receive stock-based compensation, restricted or otherwise, in their base compensation.

118. Do the Companies or LKE have any other incentive award programs besides the TIA? If the response is in the affirmative, provide the following items:

a. Amount included in the base year and forecasted amount. If the amount is allocated, provide the allocations;
b. Copy of plan documents;
c. List of participates and awards made for 2016, 2017, and 2018 YTD; and

d. The performance objectives and actual performance results upon which the awards were based for 2016, 2017, and 2018 YTD

119. Indicate whether any award of executive compensation (e.g., incentive pay) is in the form of stock.

a. If so, indicate the specific type of stock (e.g., restricted).
b. If so, indicate the amount (by type of stock) included in the revenue requirement.

120. Refer to the direct testimony of Gregory J. Meiman, page 22, wherein he refers to "Mercer's comparator group." Identify those companies making up the comparator group and provide the criteria by which they are identified as peers of the Companies.

121. Provide a list of severance payments included in the base year, including the amount, reason, and position of employee involved.

122. Long Term Incentive Plans ("LTIP"): Does the cost of service include any long-term incentive plan costs, either direct charged or allocated? If the response is in the affirmative, provide the following items:

a. The amount included in the base year and forecasted period. If the amount is allocated, provide the allocations.
b. A list of the officers, directors, and key employees and the amounts of LTIP awarded to each for 2016, 2017, and 2018 YTD.
c. The performance objectives and actual performance results upon which the awards were based for 2016, 2017, and 2018 YTD.
d. A copy of the LTIP plan documents and explain how the awards are made.

123. Supplemental Executive Retirement Plan ("SERP"): Does the cost of service include any SERP either direct charged or allocated? If the response is in the affirmative, provide the following item:

a. The amount included in the base year and forecasted amount. If the amount is allocated, provide the allocations.

124. Supplemental Executive Retirement Program (SERP).

a. Provide the comparable SERP expense for each calendar year 2015, 2016, and 2017.
b. Provide the most recent three actuarial reports for SERP.
c. Provide all actuarial studies, reports, and estimates used for SERP for the rate effective period, as to both Companies.
d. If different for affiliated SERP costs charged or allocated to KU, also answer parts a-e above for each affiliate that incurred SERP costs that were charged or allocated to KU.

G. <u>Taxes</u>

125. Refer to the direct testimony of Chris M. Garrett, pages 32-35, and Schedule E-1 sponsored by Mr. Garrett. Mr. Garrett notes that the "TCJA retains the corporate deduction for state income taxes and the interest deductibility for utilities."

a. Are these two deductions taken into account in setting the Companies' rates?
b. If the response to subpart a., above, is in the affirmative, provide a citation to the application where the deductions are evidenced.

126. Refer to the direct testimony of Kent W. Blake, pages 4-5, wherein he described the *Offer and Acceptance of Satisfaction* as filed in Case No. 2018-00034, as "Commission-approved."

a. Is it the position of the Companies that the Commission approved the referenced *Offer and Acceptance of Satisfaction*? If the response is in the affirmative, provide support for same.

127. Tax Cuts and Jobs Act. Notwithstanding the regulatory treatment in Case No. 2018-00034, confirm that IRS normalization requirements for excess accumulated deferred income taxes ("ADIT") apply to only accelerated federal tax method-life depreciation, and that they do not apply to excess ADIT on other book-tax temporary differences, regardless of whether they have a basis in plant.

128. Tax Cuts and Jobs Act. The Companies' FERC Form 1's for 2017 state the following at page 123.22:

<u>KU</u>

> Regulatory liabilities associated with net deferred taxes represent the future revenue impact from the adjustment of deferred income taxes required primarily for excess deferred taxes and unamortized investment tax credits. At December 31, 2017, excess deferred taxes recorded as a result of the TCJA were $634 million, which includes the gross-up associated with the excess deferred taxes.

<u>LG&E</u>

> Regulatory liabilities associated with net deferred taxes represent the future revenue impact from the adjustment of deferred income taxes required primarily for excess deferred taxes and unamortized investment tax credits. At December 31, 2017, excess deferred taxes recorded as a result of the TCJA were $532 million, which includes the gross-up associated with the excess deferred taxes.

a. Provide a reconciliation of the Companies' excess deferred tax balances, before and after the referenced gross-up.
b. What is the purpose of the gross-up and why is it necessary?
c. Considering the excess deferred taxes are amortized, how is the gross up reflected in cost of service as the excess deferred taxes is amortized?

129. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 35, wherein he states, "Prior to the implementation of H.B. 487, the Companies paid a state corporate income tax rate of 6%. For taxable years beginning on or after January 1, 2018, the state corporate income tax will be imposed at a 5% tax rate."

a. What are the estimated savings from the corporate rate reduction and estimated increases in sales tax resulting from state tax reform for the period between January 1, 2018, and April 30, 2019?

130. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 35, wherein he states, "In a separate filing earlier this month, the Companies requested permission to establish regulatory liabilities by the end of the year for the excess ADIT created by the reduction in the state corporate income tax rate."

a. How are the regulatory liabilities reflected in the base and forecasted test years?

131. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 38, wherein he states, "Included in the forecasted test year is approximately $1.0 million for KU, $0.5 million for LG&E Electric, and $0.1 million for LG&E Gas of additional excess ADIT amortization associated with Kentucky state tax reform."

a. Reconcile the referenced amortizations to the excess ADIT adjustments in the Companies' respective Schedule Es.

132. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 35, wherein he states, "Like the Companies' treatment of the TCJA, KU and LG&E will account for the state corporate tax rate reduction by amortizing all protected excess ADIT using the Average Rate Assumption Method ("ARAM") and amortizing all unprotected excess ADIT over a 15-year amortization period. The Companies will continue to treat all property-related excess ADIT as protected."

a. Cite the Kentucky law or tax code that defines "protected" excess ADIT.
b. Cite the Kentucky law or tax code that requires using ARAM to amortize "protected" excess ADIT consistent with IRS requirements for electing federal accelerated depreciation.

133. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 35, wherein he states, "The amortization of the unprotected excess ADIT will begin when new base rates go into effect."

a. Discuss when the "protected" excess ADIT amortizations under the ARAM method begin.

b. If they do not begin when new base rates go into effect, will the benefit of the "protected" excess ADIT amortizations from January 1, 2018, through April 30, 2019, ever accrue to customers?

134. State Tax Reform. The Kentucky corporate income tax rate was previously reduced from 7 percent to 6 percent, effective in 2008, and from 8.25 percent to 7 percent, effective in 2006.

a. Were the excess ADIT's in connection with the previous tax rate reductions amortized consistently with the Companies' proposed ratemaking treatment in the instant case? If the response is in the negative, explain the differences.
b. Do the Companies have remaining excess ADIT balances on their books from the previous tax rate reductions? If the response is in the affirmative, provide the forecasted balances as of December 31, 2018, and April 30, 2019.

135. Property Tax. Refer to Filing Requirement 807 KAR 5:001 Section 16(7)(c), Item A, wherein the Companies describe the financial planning modeling process. Page 13 of 19 states the following:

> Property taxes are estimated annually based on net book asset values, including CWIP, as of December 31 of the previous year and include several current asset balances such as; fuel inventory and materials and supplies. The expense accrual is spread evenly over twelve months while cash payments are based on historic trends, which normally result in large cash payments during the fourth quarter of a calendar year.
>
> The primary source of data used to calculate the estimates is within the UI report labeled "KY Plant Account". The plant account assignment determines the property classification (real estate, manufacturing machinery, other tangible) and then the appropriate tax rates are applied to those balances. State and local tax rates are based on prior year settlements with an assumed increase to local tax rates of two percent per year.

a. Provide the computation supporting monthly property tax expense for 2019 and 2020. The computation should reflect:
    i. Net book asset values, including CWIP, as of December 31 of the previous year and current asset balances such as; fuel inventory and materials and supplies.
    ii. Rates applied to those balances.
b. Reconcile the state and local tax rates based on prior year settlements with the assumed increase to local tax rates of two percent per year going back to 2017.

136. Tax Depreciation. Refer to the Companies' response to PSC Data Request No. 1-65.

a. Provide the tax depreciation rates for each line item in Att_KU_PSC_1-65_Depreciation_Exp_Wkpr.
b. Reconcile the book-tax timing differences to accumulated deferred income taxes in rate base for the forecast period.

X. COST OF SERVICE/RATE DESIGN/TARIFFS

137. With regard to Mr. Seelye's Loss of Load Probability ("LOLP") study, he indicates that <u>hourly</u> loads were utilized for individual classes. In this respect, provide:

a. a detailed narrative description of how class hourly loads were developed;
b. each class hourly load for the forecasted test year (or the period utilized by Mr. Seelye within his CCOSS). Because of the joint dispatch of the Companies' generation facilities, include both KU and LG&E classes (showing KU and LG&E classes separately). In addition, also include each non-jurisdictional class;
c. a detailed explanation of how curtailable load or curtailable load credits are reflected within the class hourly loads;
d. all workpapers, analyses, spreadsheets, etc. showing the development of each hourly load for each class; and,
e. an explanation of whether the hourly loads provided in (b) are measured at the meter or generation level.

Provide all data in executable electronic format, preferably in native Excel format, with all formulas intact and cells unprotected and with all columns and rows accessible. If data is not available in Excel format, contact counsel for the Attorney General to provide the data in ASCII comma-delimited format with all fields defined.

138. For each of the last two years (or most recent 24-months available), provide actual class hourly loads for both KU and LG&E for every hour during the 24-month period. If the requested data for every hour and every class is not available, provide the most detailed information available.

139. With regard to Mr. Seelye's LOLP study, he indicates that <u>hourly</u> characteristics of LG&E and KU's generating facilities were utilized. In this respect, provide:

a. A detailed narrative description of how hourly generation output was developed;
b. Each hourly generation output (by unit) for the forecasted test year (or the period utilized by Mr. Seelye within his CCOSS). Because of the joint dispatch of the Companies' generation facilities, include both KU and LG&E generation resources. For facilities jointly-owned exclusively by LG&E and KU, provide

total unit output by hour. For facilities partially owned by LG&E and KU combined, provide KU and LG&E (combined) percentage output;

c. Hourly purchases of electricity (KU and LG&E combined); and,
d. Hourly wholesale sales of electricity (KU and LG&E combined).

Provide all data in executable electronic format, preferably in native Excel format, with all formulas intact and cells unprotected and with all columns and rows accessible. If data is not available in Excel format, contact counsel for the Attorney General to provide the data in ASCII comma-delimited format with all fields defined.

140. With regard to Mr. Seelye's LOLP study, provide a detailed explanation along with all mathematical formulae showing how hourly LOLP was calculated. In this response, specifically explain how off-system sales, wholesale purchases of power, curtailment capabilities, reserve margin requirements, and outage rates are considered, evaluated, and quantified in developing hourly LOLP.

141. With regard to Mr. Seelye's LOLP study, provide all analyses, workpapers, spreadsheets, etc. showing the following:

a. hourly system Loss of Load Probability;
b. hourly system load (MW);
c. hourly forced outage MW (by unit as available);
d. hourly planned outage MW (by unit as available);
e. available generation production from KU/LG&E-owned facilities;
f. wholesale sales (if applicable or utilized in determining hourly LOLP);
g. wholesale purchased power (if applicable or utilized in determining hourly LOLP); and,
h. required reserve margin (percent or MW as applicable)
i. curtailable load available (MW)
j. curtailable load actually curtailed (MW).

In this response, provide all data and formulae necessary to replicate each hourly system Loss of Load Probability. Provide all data in executable electronic format, preferably in native Excel format, with all formulas intact and cells unprotected and with all columns and rows accessible. If data is not available in Excel format, contact counsel for the Attorney General to provide the data in ASCII comma-delimited format with all fields defined.

142. Provide LG&E and KU individual and combined generation reserve margins for the following:

a. fully forecasted test year;
b. most recent actual period available; and,
c. as of December 31, 2017.

143. Provide all workpapers, analyses, spreadsheets, etc. showing the development of each class' weighted LOLP as shown in Exhibit WSS-19. Provide all data in executable electronic format, preferably in native Excel format, with all formulas intact and cells unprotected and with all columns and rows accessible. If data is not available in Excel format, contact counsel for the Attorney General to provide the data in ASCII comma-delimited format with all fields defined.

144. For each of the last ten years, provide the following:

a. annual winter system peak demand (KU and LG&E combined);
b. annual winter native load (jurisdictional) peak demand (KU and LG&E combined);
c. annual summer system peak demand (KU and LG&E combined); and,
d. annual summer native load (jurisdictional) peak demand (KU and LG&E combined).

145. For each KU and LG&E generating unit owned individually, jointly, or partially, provide the following for the most recent actual 12-month period available:

a. names of owners (and ownership percentages);
b. type of fuel(s);
c. total nameplate (rated) capacity (MW);
d. total and individual company gross investment at the end of the period;
e. total individual company depreciation reserve at the end of the period;
f. total and individual company annual book depreciation expense;
g. gross KWh produced during the period; and,
h. net (less station use) KWh produced during the period.

Provide in executable electronic (Excel) format with all formulas intact and cells unprotected and with all columns and rows accessible.

146. For each KU and LG&E generating unit owned individually, jointly, or partially, provide the following for the <u>fully forecasted test year</u> ending April 30, 2020:

a. names of owners (and ownership percentages);
b. type of fuel(s);
c. total nameplate (rated) capacity (MW);
d. total and individual company gross investment at the end of the period;
e. total individual company depreciation reserve at the end of the period;
f. total and individual company annual book depreciation expense;
g. gross KWh produced during the period; and,
h. net (less station use) KWh produced during the period.

Provide in executable electronic (Excel) format with all formulas intact and cells unprotected and with all columns and rows accessible.

147. Provide the combined KU and LG&E generating order of dispatch by unit and the basis for this order of dispatch.

148. For each KU and LG&E generating unit, provide average monthly and annual fuel costs per KWh during the most recent 12-months available. Provide in executable electronic (Excel) format with all formulas intact and unprotected and with all columns and rows accessible.

149. For each KU and LG&E generating unit, provide forecasted average monthly and annual fuel costs per KWh for the fully forecasted test year ending April 30, 2020. Provide in executable electronic (Excel) format with all formulas intact and cells unprotected and with all columns and rows accessible.

150. With regard to wholesale sales, resale sales, and all other non-jurisdictional sales of electricity, provide the following for each customer for the fully forecasted test year for KU and LG&E separately:

a. identification of customer;
b. sales of electricity revenue;
c. KWh at meter;
d. maximum peak demand;
e. maximum contract demand; and,
f. voltage level at delivered service.

151. Explain why sales for resale customers are not allocated any costs in Mr. Seelye's cost of service study, but rather, revenues are credited back to jurisdictional customers. In this regard, also explain how the loads associated with sales for resale are considered and reflected in Mr. Seelye's LOLP method.

152. With regard to the curtailable load credits reflected in the fully forecasted test year and Mr. Seelye's class cost of service study, provide the level (megawatts) of curtailable load embedded in the revenue credit separately by each rate schedule and by CR-1 and CR-2.

153. Provide a detailed itemization of each requested curtailment during the last five years. In this response, provide the date, duration, requested load curtailment by individual customer and by CR-1 and CR-2, along with the amount of load actually curtailed.

154. Explain in detail how each, KU and LG&E (acting alone or in conjunction with affiliates), treats interruptible/curtailable load in:

a. developing its long-run load forecast;
b. determining its long-run need for future supply-side resources;
c. determining its need for operating reserve capacity;
d. providing ancillary services; and,
e. determining whether such load qualifies as spinning reserve.

155. Explain in detail how KU and LG&E treat curtailment buy-through revenues in setting base rates and/or modifying its Fuel Adjustment Clause.

156. Identify and explain in detail how KU and LG&E treats test-year curtailment buy-through revenue in the electric cost-of-service study filed in this case. This request refers to the methodology that KU and LG&E would use even if it received no test-year CSR buy-through revenue.

157. Provide the most recent loss factors for energy and demand separated by voltage level; i.e., transmission, sub-transmission, primary, secondary.

158. Provide the current number of customers (accounts) by rate schedule for each zip code within the Company's service area. Note: street lighting accounts may be excluded from this data set. Provide in executable electronic (Excel) format with all formulas intact and cells unprotected and with all columns and rows accessible.

159. With regard to the Company's CCOSS, explain why Rate PS-Secondary, Rate TOD-Secondary, and Outdoor Sports Lighting (OSL) are not allocated any secondary line (overhead or underground) costs.

160. Provide references to each instance known to Mr. Seelye that the LOLP method has been proposed before State regulatory commissions to allocate generation plant for retail class cost allocations purposes. In this response, provide the name of

the utility, year, jurisdiction, docket number, and proposing party as available. Further, indicate whether the State regulatory commission that the LOLP was proposed to explicitly found the LOLP method to be reasonable to CCOSS purposes.

161. Provide an itemized list as well as a copy of all investor-owned electric utility testimony prepared by Mr. Seelye and provided to a regulatory commission on issues concerning class cost of service during the last five years. If such testimony is available electronically on Commission websites, simply provide a link to the respective testimony.

162. Refer to the direct testimony of William Steven Seelye, page 15, wherein he states "The Companies want customers, stakeholders, and employees to be aware that two types of costs are included in the energy charge for Rate RS and other rates that have a two-part rate structure consisting of a Basic Service Charge and an Energy Charge."

a. Why do the Companies want customers, stakeholders and employees to be aware that the energy charge includes these two types of costs?

163. Refer to the direct testimony of William Steven Seelye, pages 66-67, wherein he discusses late payments.

a. Following previous base rate cases, have the Companies noticed or identified that late payments tend to increase following increases in base rates?

164. Refer to the direct testimony of William Steven Seelye, page 74, wherein he states that the LOLP "was supported by several of the intervenors in those proceedings." Further,

a. Identify the intervenors who "supported" the LOLP in the Companies' last base rate proceedings.

165. Refer to the direct testimony of Robert M. Conroy, page 7, wherein he cites to the Edison Electric Institutes' *Typical Bills and Average Rates Report Winter 2018*.

a. Provide a copy of this report.

166. Refer to the direct testimony of Robert M. Conroy, page 9, wherein he states, "I believe an LOLP approach to conducting a cost of service study is appropriate."

a. Explain whether Mr. Seelye approached the Companies about using the LOLP approach or if the Companies initiated the idea and tasked Mr. Seelye with conducting that approach.
b. Is the LOLP approach the only time-differentiated embedded cost of service study approach available?

167. Refer to the direct testimony of Robert M. Conroy, page 14, wherein he notes that a change to a daily from a monthly Basic Service Charge "avoids any need to prorate service for customers who begin or end service mid-billing period."

   a. Provide the amount of savings included in the forecasted period due to the identifiable savings from this efficiency.

168. Refer to the direct testimony of Robert M. Conroy, page 14, wherein he discusses "splitting the energy charge into two components for informational purposes on the tariff sheets for rate schedules that do not have demand charges." Further, visit the following link to the Companies' own website: https://lge-ku.com/regulatory/rates-and-tariffs

   a. Provide the number of times a month for the year 2017 and 2018 to date that visitors to the site have clicked on/visited the following categories in order to download the PDFs:
      i. LG&E Electric Rates
      ii. LG&E Gas Rates
      iii. KU Electric Rates

   All three categories are listed in two separate locations on the website and the response may combine the clicks/visits between the two distinct locations. If discernable, the response should differentiate between unique visits/clicks and subsequent visits/clicks.

169. Refer to the direct testimony of Robert M. Conroy, pages 15-16, wherein he answered affirmatively whether "recovering a larger proportion of customer-specific fixed costs through the Basic Service Charge rather than through the energy charge . . . [has] the effect of stabilizing customers' monthly bills[.]"

   a. Confirm that recovery of revenues through fixed charges rather than through energy charges has the effect of stabilizing the Companies' monthly revenues.
   b. When did the Companies first begin recovering what it considers "customer-specific fixed costs" through residential customers' energy charge?

170. Refer to the direct testimony of Robert M. Conroy, page 22, wherein he discusses the "third Green Tariff option" and the proposed Green Tariff.

   a. Explain the purpose and need for the eligible customer to "be willing to enter into an obligation for 10 MW or more of new (not already existing) renewable capacity."
   b. Do the Companies anticipate that either Company may be the entity that develops the "renewable resource" envisioned under Option #3?
   c. Do customers interested in Option #3 get to choose or have input into what type of "renewable resource" it receives electricity for under Option #3, or any input into which "renewable resource" developer is chosen?

d. Are any of the interconnection requests for solar located at the link below requested by either of the Companies?

https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/LG&E_and_KU_GI_Queue_Posting_November_05,_2018.pdf

e. Will the projects chosen under Option #3 be pursuant to a formal RFP process?
f. If the response to subpart e., above, is in the affirmative, explain who sets the parameters of the RFP and if the ultimate customer will be consulted during the process.
g. Can customers with multiple locations throughout a service territory aggregate new load in order to participate under Option #3? If not, why not?
h. Have the Companies considered providing a pro-forma mock contract in the tariffs so that interested customers will understand the terms the Companies may consider under Option #3 (e.g., what effect the agreement may have on demand charges, ECR costs, etc.)?
i. If the Companies are unwilling to provide a pro-forma mock contract to provide interested customers additional certainty up-front, why do the Companies believe potential customers would be any more interested with Option #3 than they are now?

171. Refer to the direct testimony of Robert M. Conroy, page 32, wherein he describes the proposed changes to the Economic Development Rider.

a. For the five most-recent customers who have taken service under each Company's Economic Development Rider, provide the demand, by year, for the first 5 years under each contract.
b. As a general matter, would the Companies agree that customers who have taken under the Economic Development Rider, have increased, rather than decreased their usage over the discount period of the Rider?

172. Refer to the direct testimony of Robert M. Conroy, pages 32-33, wherein he describes the minimum load factor of 50% in order to take service under the EDR.

a. Explain how this minimum load factor does not preclude high energy intensity, low load factor customers from expanding in the Companies' territories. Any response should include an explanation as to how many of the new industrial or large commercial customers that have recently located in the Companies' territories satisfy this minimum.

173. Refer to the direct testimony of Paul W. Thompson, page 2, wherein he discusses the number of customers served by LG&E and KU.

a. Provide a breakout, between LG&E and KU, of the number of unique customers each utility has (e.g., one business with 5 meters on site, or one home with a residential meter at the home and another on a pool house, etc.). The response should not consider businesses with multiple locations located across service territories as one "unique" customer, but rather, the request is seeking information on the number of discrete locations customers are served. If possible, any response should provide the number of unique residential locations, separate from non-residential.

174. Refer to the direct testimony of Paul W. Thompson, page 2, wherein he notes that "20 years of common ownership has allowed KU and LG&E to streamline and fully integrate their operations, and jointly plan all aspects of their business, including safety, electric generation, transmission, distribution, customers service, information technology, and all service functions."

a. Confirm that although the Companies plan many of their aspects jointly, the legal separation between LG&E and KU requires the Companies to file separate rate cases for their electric operations and perform separate cost of service studies and revenue requirement models.

175. Refer to the direct testimony of David S. Sinclair, pages 9-10, wherein he discusses the impact from existing distributed generation, "almost all of it in the form of solar generation."

a. Explain what cost of service impact the 2.4 GWh and 2.6 GWh for KU and LG&E, respectively, have on other customers in the Forecasted Test Year.
b. Explain how much of this 2.4 GWh and 2.6 GWh is due to customers who "net-meter" pursuant to KRS Chapter 278.465 and 278.466.
    i. Provide the cost of service impact those "net-metering" customers have on other customers in the Forecasted Test Year.

176. Provide a copy of the most recent KU jurisdictional class cost allocation study and accompanying testimony conducted for Virginia, Tennessee, and FERC.

XI. RELIABILITY

177. Refer to the direct testimony of Paul W. Thompson, page 8.

a. Provide a narrative explanation as to how the Companies calculated the avoided customers interruptions and minutes due to the installation of electronic reclosers. Provide all workpapers used in determining these amounts in executable electronic format, preferably in native Excel format, with all formulas intact and cells unprotected and with all columns and rows accessible.
b. Provide the actual and budgeted costs of installing the 350 electronic reclosers, broken out by Capital and O&M.

c. Confirm that due to the magnitude of the referenced July 2018 Storms, impacts arising from them would not be included in the calculation of System Average Interruption Frequency Index ("SAIFI") and System Average Interruption Duration Index ("SAIDI"). If this cannot be confirmed, explain why not.
d. Provide the SAIDI and SAIFI information in Exhibit LEB-5 that is redacted, specifically the redacted information on page 4 of 16 through page 8 of 16.

178. Refer to the direct testimony of Lonnie E. Bellar, page 36, wherein he discusses the 2018 transmission SAIDI through July.

a. Provide the Companies' transmission SAIDI for the last 5 calendar years and 2018 to-date as well as each month in 2018 in which the Companies have data. Provide an update to this response as monthly information becomes available.
b. For each year the information is available, provide the annual SAIDI by transmission line voltage (i.e. 69 kV, 115, kV, 230 kV, etc.).

179. Refer to the direct testimony of Lonnie E. Bellar, page 36, wherein he discusses the Companies' transmission OHMY.

a. Provide the Companies' transmission OHMY for the last 5 calendar years, and 2018 to-date, as well as each month in 2018 in which the Companies have data. Provide an update to this response as monthly information becomes available.
b. For each year the information is available, provide the annual OHMY by transmission line voltage (i.e. 69 kV, 115, kV, 230 kV, etc.).

180. Refer to the direct testimony of Lonnie E. Bellar, page 44, wherein he discusses the move of LG&E's distribution SCADA to the Distribution Control Center.

a. From what center is KU's distribution SCADA function operated?
b. Provide the savings realized from this move.

181. Refer to the direct testimony of Lonnie E. Bellar, page 46.

a. Provide each Companies' SAIDI and SAIFI for the last five (5) complete years, 2018 to-date and each month in 2018, proving each annual number with and without the inclusion of major event days ("MED").

182. Refer to the direct testimony of Lonnie E. Bellar, page 54, wherein he discusses the use of and possible expansion of substation monitoring and controls system.

a. Provide the cost savings, including reduction in manual intervention or field service personnel, of the current substation monitoring and controls system.
b. How many substation monitoring and controls systems do the Companies currently have, where are they located, and what criteria did the Companies employ in selecting the current substations?

183. Refer to Exhibit LEB-2 to the direct testimony of Lonnie E. Bellar, page 30 of 40, Appendix D, wherein the document discusses the Companies "NERC requirements," including the Companies' ability "to meet the NERC reliability standards contingency reserve requirements."

   a. Explain what the Companies' NERC reliability standards contingency reserve requirements is, and if the information is public, where in the public domain it may be accessed.

184. Refer to the direct testimony of David S. Sinclair, page 26, wherein he discusses target summer and winter reserve margin ranges of 17 to 25 and 28 to 38 percent, respectively.

   Are the Companies aware of any other utility in the country with such a high season reserve margin as the Companies' winter target reserve margin? If the response is in the affirmative, provide the names of those utilities and the seasonal reserve margin.

185. With regard to the Companies' distribution automation program, state whether the Companies will incorporate the IEEE 1547 standard for interconnection and interoperability of distributed energy resources with associated electric power systems interfaces. If they will not, explain why not.

186. With regard to the Companies' deployment of smart grid technologies, state how the Companies intend to comply with FERC's recent approval of NERC's Critical Infrastructure Protection Standards (CIP-013-1).

187. With regard to the Companies' deployment of smart grid technologies, state whether they will be deploying additional volt/VAR projects for circuits with high amounts of resistive load.

   d. If so, provide copies of all cost/benefit analyses the Companies may have conducted regarding the cost effectiveness of volt/VAR projects.

188. With regard to the Companies' deployment of ADMS technology, state whether the Companies have conducted any ADMS Testbed demonstrations in order to model and evaluate ADMS applications. If demonstrations were conducted, provide documents regarding the results of the Testbed demonstrations.

189. Identify the value streams the Companies hope to bring about through the deployment of ADMS.

190. With regard to the Companies' deployment of smart grid technologies, state to what extent they have examined the use of technologies involving: (i) Geographic Information System (GIS); and (ii) Blockchain, as a potential means of reducing costs

associated with the use of both current and planned smart grid technology deployments. Include in your response:

e. whether GIS and/or Blockchain technologies could be used as cost-effective alternatives to such deployments;
f. whether any cost-effective GIS technologies could decrease the need and scope of further planned ADMS and SCADA deployments;
g. whether GIS and/or Blockchain technologies could be used to integrate other IT and operational technologies in such a manner as to reduce costs;
h. whether GIS and/or Blockchain technologies can be utilized to reduce costs associated with reliability, resilience and grid security;
i. in the event the Companies do at some point utilize GIS and/or Blockchain technologies, whether they could adopt existing platforms that would be interoperable with other systems, rather than creating a unique platform specially customized for the Companies' use;
j. copies of any studies/analyses the Companies may have conducted regarding the cost effectiveness, or cost/benefit studies regarding the use of such technologies.

191. Reference the Bellar testimony, p. 22, footnote 22, wherein he references the Companies' "Annual TSIP Report" filed under the post-case files in Case Nos. 2016-00370 and 2016-00371. Page 5 of that document states: "The bulk of the additional spending is attributable to the Companies' accelerated replacement of line equipment, in particular, wood poles." Discuss why wood poles have proven to be the primary reason for variances from projected TSIP spending levels.

a. Discuss whether the quality of the wood, its age, and/or the treatment used on the poles' exterior have proven to be problematic.
b. Do the problems have a greater incidence with certain pole vendors?
c. Has unseasoned/green wood proven to be a problem?
d. Identify any criteria utilized when evaluating damaged wood poles as to whether repairs such as further weatherization treatment would suffice, versus outright pole replacement.
e. Identify any criteria utilized when evaluating whether wood poles that need replacing should be replaced with another wood pole, or a metal pole.
f. Provide a table or graph illustrating the total number of wood pole failures over the last fifteen (15) years that have required a replacement, regardless of whether the replacement is wood or metal.
g. Has a survey or study been done of other utilities with similar types of poles and how failure rates have impacted them? If so, provide a copy.

192. Reference the Bellar testimony beginning at p. 45, where he has an extended discussion regarding the Companies' distribution system. State whether the

Companies have been experiencing the same types of problems with wood poles used in the distribution system as they have encountered with wood poles used in the transmission system. If so:

a. Discuss whether the quality of the wood, its age, and/or the treatment used on the poles' exterior have proven to be problematic.
b. Do the problems have a greater incidence with certain pole vendors?
c. Has unseasoned/green wood proven to be a problem?
d. Identify any criteria utilized when evaluating damaged wood poles as to whether repairs such as further weatherization treatment would suffice, versus outright pole replacement.
e. Identify any criteria utilized when evaluating whether wood poles that need replacing should be replaced with another wood pole, or a metal pole.
f. Provide a table or graph illustrating the total number of wood pole failures over the last fifteen (15) years that have required a replacement, regardless of whether the replacement is wood or metal.
g. Has a survey or study been done of other utilities with similar types of poles and how failure rates have impacted them? If so, provide a copy.

193. Reference the Bellar testimony generally, the discussion regarding the Distribution Reliability and Resiliency Program ("DRRIP"). Other than enhanced reliability measures, provide copies of any and all cost/benefit analyses the Companies may have conducted indicating the costs of the DRRIP and the monetary savings to ratepayers that the DRRIP is projected to yield.

194. Reference the Bellar testimony at p. 50, wherein he states the Companies are considering an expansion of the Distribution Automation ("DA") program.
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a. If the Companies decide to expand the program as Mr. Bellar discusses, will they file a new CPCN with the Commission? If not, why not?
b. Regarding any potential expansion of the DA program, provide any and all cost benefit analyses the Companies may have conducted as to the proposed expansion, separate and distinct from the DA program as it currently exists.

195. Reference the Bellar testimony, p. 44, where he states: "The Transmission Reliability Outage Database System ("TRODS"), first implemented in 2014, has been continuously refined to simplify engineer access to disparate data to more readily determine the source of outages and prevent future outages."

a. Provide examples of the types of "disparate data" that the TRODS system provides to engineers.

b. Explain how the TRODS system has provided savings to ratepayers, and provide any and all quantifications of those savings, if applicable.

196. Reference the Bellar testimony, pp. 35-45, wherein he discusses the Companies' transmission system. With regard to the Companies' Transmission System Improvement Plan ("TSIP"), provide copies of any and all cost benefit analyses the Companies may have conducted regarding alternatives to the projects and methods the Companies intend to pursue.

197. Reference the Bellar testimony, p. 37, lines 9-11, wherein he discusses reliability programs such as sectionalizing. Discuss whether there any other options that might be more cost-effective while still satisfying the stated goals. Provide copies of any and all cost-benefit analyses regarding any such options.