COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT'S FIRST REQUEST FOR INFORMATION TO KENTUCKY UTILITIES

In accordance with the Public Service Commission's ("Commission") October 11, 2018, Order, Intervenor Lexington-Fayette Urban County Government ("LFUCG") propounds the following data requests upon the Applicant Kentucky Utilities ("KU"). KU shall respond to these requests in accordance with the provisions of the Commission's October 11, 2018, Order, applicable regulations, and the instructions set forth below.

INSTRUCTIONS

1. Please provide written responses, together with any and all exhibits pertaining thereto, separately indexed and tabbed by each response.

2. The responses provided should restate LFUCG's request and also identify the witness(es) responsible for supplying the information.

3. If any request appears confusing, please request clarification directly from counsel for LFUCG.

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

information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.

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

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

7. If KU objects to any request on any grounds, please notify counsel for LFUCG as soon as possible.

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

9. In the event any document called for has been destroyed or transferred beyond the control of the company, state the following: the identity of the person by whom it was destroyed or transferred, and the person authorizing the destruction or transfer; the time, place, and method of destruction or transfer; and, the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy, state the retention policy.

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

Respectfully submitted,

STURGILL, TURNER, BARKER & MOLONEY, PLLC
James W. Gardner
M. Todd Osterloh
333 W. Vine Street, Suite 1500
Lexington, Kentucky 40507
Telephone No.: (859) 255-8581
Facsimile No.: (859) 231-0851
jgardner@sturgillturner.com
tosterloh@sturgillturner.com

and

Janet Graham, Commissioner of Law
David J. Barberie, Managing Attorney
Andrea C. Brown, Attorney
Department of Law
200 East Main Street
Lexington, Kentucky 40507
(859) 258-3500
jgraham@lexingtonky.gov
dbarberi@lexingtonky.gov
abrown2@lexingtonky.gov

Attorneys for Lexington-Fayette Urban County Government

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that the November 13, 2018, electronic filing of this document is a true and accurate copy of the same document being filed in paper medium; that the electronic filing will be transmitted to the Commission on November 13, 2018; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of the Notice of Filing will be delivered to the Commission within two business days.

Counsel for LFUCG

Requests for Information

1. Please refer to Exhibit WSS-3.
    a. Please explain the methodology of the analysis that concluded that some customer bills would be lower under a 100% ratchet compared to a 75% ratchet. Include within your response an identification and explanation of all assumptions used in the analysis.
    b. For each customer in the analysis, please provide the maximum base demand and the average base demand for the 23-month period of study.
    c. In absolute terms, how much additional revenue was generated by increasing the ratchet from 75% to 100% during the test period?
2. Regarding rate TOD-S, please confirm that revenue related to Base Demand is not expected to vary (in aggregate) because the reduction in the base rate is offset by the determination of load using kVA in the forecast model.
3. Please provide the number (quantity), rate type, type description, and location (by street address) of each street light located in Fayette County, Kentucky for which the LFUCG currently pays rates to the Company.
4. Please refer to Exhibit WSS-4:
    a. On Page 1, please provide a comprehensive breakdown of the Total Installed Cost for each LED lighting offering.
    b. Please explain how KU or Mr. Seelye calculated the Fixed Carrying Charge.
    c. Please explain the justification for the Fixed Carrying Charge.
    d. Please provide all workpapers supporting the estimated investment per unit for each type of LED fixture and underground pole.
5. Please refer to the paragraph 4.5 of the First Stipulation and Recommendation entered into in Case Nos. 2016-00370 and 2016-00371.
    a. Please provide copies of all documents/memoranda, emails, minutes of meetings, conclusions, and notices to members prepared by the Companies in conjunction with the LED collaborative.
    b. Please provide the conclusions and/or recommendations of the collaborative.
    c. Please provide in detail how the Companies "engage[d] in good faith" during the time that the collaborative existed.
    d. How many meetings were held? For each meeting, please provide the dates and locations, and results or conclusions.
6. One criticism that came out of the LED Collaborative is that KU does not track operation and maintenance expenses at a level sufficient to assess the anticipated benefits of LED lighting; nor at a level to fact-check the estimated costs used to establish lighting rates. Suggestions included tracking expenses for new installation separate from repairs and that the type of repair be known (e.g. problem related to wiring, fixture, pole, etc.)
    a. Does KU plan to make any changes to LS expense tracking?
    b. If yes, please elaborate.
7. During the LED Collaborative, participants explained that lighting customers needed information regarding a practical rollout of upgrading existing lights to LED. Does KU

have any systematic plans to convert restricted lighting to LED by geography or by rate code?

8. How does KU define end of service for an LED, given the expected result is lumen depreciation rather than complete failure?
   a. What are KU's plans for service/maintenance for LED lights when they near or reach the end of service?
9. For the period of 2014 to present, please provide any KU internal and external business plans, presentations, marketing material, feasibility studies, lighting conversion financial analyses, customer economic studies, conversion financial models, and correspondence to senior leadership as created or prepared by or for KU as it relates to street lighting. Bookmark the following documents in your response:
   a. Technical specifications or metrics established by KU that were used to select LED lighting types, such as lumen output, lumens-per-watt, warranty, L70, kelvin, etc.
   b. Product data sheets for the new LED lighting types and LED equipment supply options as mentioned by Mr. Seelye on page 40 of his testimony.
10. Please refer to KU's response to LFUCG 1-28 in Case No. 2016-00370. On Page 31 of Attachment 1, it provides a recommendation that KU develop a tool to estimate the cost to switch to LED lighting. State whether KU has developed a tool to estimate the cost to switch to LED lighting. If not, please state whether KU is committed to developing such a tool and when it anticipates that it will accomplish that objective.
11. The Energy Policy Act of 2005 – Section 135 H.R. 6-39 states that "Mercury vapor lamp ballasts . . . shall not be manufactured or imported after January 1, 2008." What is the status of KU's inventory for mercury vapor replacement?
    a. When is conversion to from mercury vapor to LED anticipated?
    b. Please indicate the proposed LED replacement for each MV light and the change in monthly charge as a result of replacement, including any one time charges to the customer.
12. Proposed rates for Underground Lighting Service are broken into two charges, a fixture charge and pole charge. Please provide a comprehensive breakdown of the components in a generic lighting system and identify the respective charge for each component. For example, is the conductor part of the fixture or pole charge? Is a mast arm part of the fixture or pole charge?
    a. If KU will begin tracking these categories of material separately, how does KU propose to allocate current undepreciated balance of the combined category into separate undepreciated balances for each of the separated categories.
13. In the past, LFUCG has used CIAC to pay for the cost of installing underground service with monthly bills charged at the overhead rate.
    a. Will the proposed changes to the LS tariff disrupt this option? If yes, please elaborate.

   b. Does KU have an asset inventory that would infrastructure pre-paid by the customer through CIAC?
   c. If LFUCG requests an LED conversion of such a light, how would the service be billed under the proposed rates? Provide both monthly and any one time fees.
14. KU form KU-17-12a dated 3-18 is the Contract for Outdoor Lighting Service. This fillable form provides a cost breakdown worksheet to determine the CIAC and/or EF FEES that could be associated with installation of new LS service. Please provide an updated proposed change to this form based on the changes proposed in this case so that LFUCG may be able to estimate the proposed changes in costs from the current costs.
15. Please refer to Tariff LS on proposed Sheet 36.4. KU proposes a new provision in Paragraph 6 that would require a customer to pay KU the cost to remove lighting facilities, such as fixtures, poles, or supporting facilities.
    a. Please explain if this when and how this fee will be calculated?
    b. Please clarify that if LFUCG requests cancelation of a LS or RLS fixture that has been in service longer than 5 years, under these proposed changes, will there be a fee to cease that service and/or removed the fixture?
16. Please refer to the RLS Tariff beginning on proposed tariff Sheet 36. It states: "In the event restricted fixtures/poles fail and replacements are unavailable, Customer will be given the choice of having Company remove the failed fixture/pole or replacing the failed fixture/pole with other available fixture/pole." The range of lumen output in the new rates complicates a photometric study.
    a. How will KU assist municipalities in evaluating roadway illumination for the new LS rate options?
    b. For starters, please provide a cross-reference table that associates all existing rate codes with their LED equivalent(s).
17. Please refer to Mr. Seelye's testimony at page 38.
    a. Please explain what it means for purposes of this proposal that a "non-LED fixture fails." Does this include bulb failure, ballast failure, or only fixture failure?
    b. Confirm that a customer will not be required to pay an LED Conversion Fee if an RLS light fails to function properly and the light is replaced with an LED fixture.
    c. Please provide approximate time until replacement equipment inventory is exhausted for each of the light types proposed to be moved from Rate LS to Rate RLS.
18. Please refer to testimony of Mr. Seelye, page 39 , lines 6-8. Will the Company be installing LED fixtures with 3-pin, 5-pin, or 7-pin photocell receptacles?
19. Please refer to Exhibit WSS-5.
    a. Explain how the Company estimated the NBV for Poles.
    b. Explain how the Company estimated the NBV for Fixtures.
    c. Explain how and provide the calculation on how the Company determined the NBV per fixture.
    d. Provide all workpapers to support the information provided in Exhibit WSS-5.
20. Please state how many new public street lights were installed by KU for each of the past three years, indicating the types of lights installed and the number of these lights which

replaced previously existing street lights, for the following: Lexington-Fayette Urban County Government; KU's Kentucky jurisdictional operations; and KU's entire system.

21. For each of the past three years, please provide the number of street lights that KU had planned on replacing prior to that year, and a summary of the actual number replaced that year for the following: Lexington-Fayette Urban County Government (extrapolate if needed); KU's Kentucky jurisdictional operations; and KU's entire system.
22. Please refer to KU's Response to Item 17 of Commission Staff's First Request for Information. On page 9 of the Attachment, line item #209 is associated with project number 153577 Lexington Pole Inspect 2017. Please describe the work completed, the goals, budgetary breakdown, and any results of the capital project.
23. Please explain in detail KU's current policies, procedures, practices, and/or guidelines for maintaining street lights in Fayette County and provide copies of the same.
    a. Does KU regularly inspect individual street lights or the collective street lighting in Fayette County?
    b. Do these inspections take place only upon the receipt by KU of a complaint regarding a particular street light?
    c. What is the average response time to replace a non-working street light in Fayette County?
    d. Does this information differ depending upon the type of street light? If so, please provide a detailed explanation.
24. Please describe in detail all maintenance that must be performed by KU on each type of street light to ensure that it operates properly and provide a list of each component of the required maintenance and its monthly cost.
25. Please provide both the number and type of public street lights for LFUCG accounts for which service or maintenance was performed in each of the last three years and the same information for both KU's Kentucky jurisdictional operations and its entire system. In addition, please provide the basis for generating the above repair or maintenance order (i.e., referral from 311, customer complaint, KU) for each of the above.
26. Provide the average time to repair a malfunctioning street light from the time of discovery, either by public reporting or Company representative, to the time the light is restored to operation.
27. Provide a chart of maintenance and repair calls for each street light in Fayette County and the total cost for each call, including both materials and labor.
28. Provide separately the number of calls from the public regarding street lights in Fayette County and the rest of the Company's system.
29. Provide any internal policies or procedures with regards to street light maintenance, repair and replacement.
30. Is KU able to ascertain, at any given time, the number of street lights in Fayette County that are actually in proper working order? If so, please provide a detailed explanation, and further explain:
    a. How many street lights (on average) are actually in proper working order at any given time;
    b. Whether the LFUCG is charged the monthly tariff rate for non-working street lights for the periods of time within which such street lights are non-operational or not working properly;

c. The amount of time it takes (on average) to bring such street lights into working order; and
d. Whether this information differs among different types of street lights. If so, please provide this information for each type of light.

31. Please state how many existing street lights are scheduled (or anticipated) to be replaced by KU over the next five years for which the LFUCG currently and/or in the future will pay a monthly rate. Please provide the quantity of each type of light being removed and the quantity and type of light that will replace it.
32. Please state how many existing street lights are scheduled (or anticipated) to be replaced by KU over the next five years for which any customer within KU's Kentucky jurisdictional operations currently and/or in the future will pay a monthly rate. Please provide the quantity of each type of light being removed and the quantity and type of light that will replace it.
33. Please refer to the new Green Tariff, Option #2 beginning on proposed tariff Sheet 69:
    a. Will KU competitively bid solar installation projects?
    b. Will the system costs and control agreements be available publically?
34. Please refer to MR. Conroy's testimony at line 21 of page 21. How does the Company define "reasonable assurance of cost recovery"?
35. Confirm that revenue received for pole attachments, including revenue generated by rates set by special contract, are subject to LFUCG's applicable franchise fee.
36. Please provide a copy of the franchise agreement between LFUCG and KU, such that it is filed in the record in this case.
37. Refer to the franchise agreement between LFUCG and KU.
    a. Confirm that Section 18(c) of that franchise agreement states, in part: "As further consideration for the granting of this franchise, the Company shall permit the Government to utilize its pole, conduit, or raceway space at no charge when such space is vacant or available for public safety or governmental purposes. If such space is not available, then the Company shall make such space available on the most favorable terms extended to any other customer."
    b. Confirm that KU's proposal to expand the availability of the schedule to internal communication network facilities of governmental units and educational institutions in Pole and Structure Attachment Charges- Rate PSA is inconsistent with the Section 18(c) of that franchise agreement that allow LFUCG to utilize KU's poles at no charge when space is vacant or available.
    c. Explain whether KU has reviewed all franchises it has with other municipalities to determine whether the proposed tariff changes to the Pole and Structure Attachment Charges- Rate PSA are permissible under every franchise.
38. For each year from 2019 to 2023, how much additional revenue does KU anticipate it will receive from the change in the PSA tariff to include governmental units and educational institutions?
39. Please refer to line 21 of page 26 of Robert Conroy's testimony.
    a. How many license agreements are currently effective?
    b. How many license agreements will expire in the base period?
    c. How many license agreements will expire in the forecasted test year?
40. Please refer to Exhibit 2 of Lonnie Bellar's testimony, the 2018 RTO Membership Analysis.

a. For the analysis of the PJM and MISO capacity auction benefits, please provide the estimated clearing prices used for the PJM/MISO auctions for each year in the study (2020-2029).
b. Please provide the estimated reserve margin required by PJM and MISO for its member utilities.
c. Please provide the estimated reserve margin for LG&E/KU as provided in its most recent Integrated Resource Plan filed in October, 2018. Were these the margins that KU/LG&E used for purposes of its 2018 RTO Membership Analysis? If not, why not?
d. Please provide a copy of the work papers for its analysis of the capacity benefits.
e. Who led the Team that prepared this RTO Membership analysis? Who were the members of the team and what are their positions with the companies?
f. With respect to its 2012 RTO analysis, did the companies include the loss of load from the municipals in determining its load? Please provide a copy of the 2012 RTO Membership Analysis.

41. Please provide a listing of all revenue LG&E/KU received from PJM and MISO (provided separately) by year for the years 2013-2017 by category including but not limited to transmission, energy sales and capacity sales.
42. Please explain why and how energy and capacity payments would increase by being a member of PJM/MISO from the status quo.
43. Did the 2012 RTO Membership Analysis include both FRR and RPM for PJM? If yes, please provide the results. If not, why not?
44. Please refer to page 14 of the Commission's Order in 2016-00370 and page 17 in the Commission's Order in 2016-00371. Please provide all actions which the Companies took to reduce the "excessive costs" for contributions made to retirement funds.
45. Please refer to page 27 of the Commission's order in 2016-00370. Please provide a copy of the plan that KU developed to address to the loss of the municipals' load.
46. Please refer to the LG&E and KU Transmission System Improvement Plan Annual Report dated June 1, 2018 (TSIP).
    a. Were the projections for 2017 and 2018 modified annually from the projections in the original TSIP submitted with Paul Thompson's testimony in 2016-00370 and 2016-00371 or are they the original projections?
    b. If they were modified, why are the projections for 2018 once again significantly different from actuals when the actuals in 2017 significantly exceeded projections?
47. Other than the cancellation of the Green River 5, have there been any reductions in costs such as transmission due to the municipals leaving KU? If so, please state those cost reductions and amounts. Are there any cost reductions planned and budgeted for 2019 as a result of the Municipals leaving the system?
    a. If yes, please detail the cost savings.
    b. If not, why are there no cost reductions?
48. Confirm that the municipalities or Kentucky Municipal Energy Association will be using the KU/LG&E transmission.
    a. Explain whether revenue will be received from this transmission service and how that revenue impacts this rate case.

49. Please refer to Mr. Blake's testimony at his answer to the question beginning on line 19 of page 10.
    a. Explain what costs will be added for KU under its Merger Mitigation Depancaking transmission rate mechanism.
    b. On line 23 of page 10, Mr. Blake indicates that there will be added costs for only KU, but on lines 1-2 on page 11, he mentions added revenue requested by both KU and LG&E as a result of the MMD mechanism. Reconcile and explain this discrepancy.
    c. Confirm that, if KU and LG&E receive FERC approval to eliminate the MMD charges, the Companies should not recover additional revenue for these costs that the Companies will not have.
    d. Identify the total amount of costs related to the MMD mechanism that KU and LG&E has included to recover from customers in this case.
    e. Identify the FERC Docket Number for the matter that has been established to review KU and LG&E's request to eliminate the MMD mechamism.
    f. State the approximate date on which KU and LG&E anticipate FERC will render a decision on the above-referenced matter.
50. Please refer to Mr. Bellar's testimony at his answer to the question beginning on line 19 of page 22. With respect to the expenses identified in the chart,
    a. identify what expenses have already been spent by KU;
    b. identify what expenses have not yet been incurred by KU; and
    c. of the expenses that have not been incurred, identify which (if any) expenses KU is contractually bound to pay.
51. Please refer to the Integrated Resource Plan filed with the Commission in Case No. 2018-00348. Will the planned retirements of Brown 1, Brown 2, and Zorn 1 result in any reduction of the companies' O & M expenses?
    a. If not, why not?
    b. If so, are they accounted for in reduced expenses in the current rate case? If so, please state how much and where the reductions are located.
52. Please refer to the testimony of Paul W. Thompson. Please provide a copy of PPL's "Climate Assessment" report described on page 10, lines 13-17.
53. Please refer to the testimony of David Sinclair at line 10, p. 9 and the EV Charging Program – 2017 Report filed for Case No. 2015-00355 on March 29, 2018.
    a. Please state why only 74 drivers have used the KU/LG&E charging stations when there are estimated to be more than 1,500 EV's in the KU/LG&E service territory.
    b. Why have only 5 of 10 authorized LG&E charging stations and 3 of 10 authorized KU charging stations been constructed and are operational?
    c. Please refer to page 1 of the EV Charging Report where it states, "usage is expected to continue trending upward as customer awareness increases . . . ." Please describe the efforts the companies employ to increase usage by existing EV owners. Does KU/LG&E have any programs/messaging specifically to EV owners in the state?
    d. Please provide updated numbers for the information found on page 1 of the EV Charging Report for 2018 through the month of October.
54. Please refer to Mr. Bellar's testimony at his answer to the question beginning on line 10 of page 55. The chart indicates that KU and LG&E will spend $128,000,000 from

January 2018 through October 2019 to connect new customers. Identify the amount of this total that will be paid for by new customers, developers, or other third-parties in the form of a fee for a service line extension or other form of Contribution in Aid of Construction.

55. Please refer to Mr. Seelye's testimony at line 18 of page 2. Explain what emerging technologies would benefit from a daily Basic Service Charge, as opposed to one that identified as a monthly charge.
56. Please refer to Mr. Seelye's testimony at lines 18-20 on page 15. Explain what benefits customers, stakeholders, and employees will have with a two-part rate structure for the Energy Charge?
57. On page 8 of Robert Conroy's testimony, Mr. Conroy says that he is aware of the impact of the rate increase on low and moderate income people. Does KU agree that the increase in the customer charge will have a disproportionate impact on lower income customers?
58. Please refer to Mr. Seelye's testimomy beginning on page 66.
    a. Explain the procedure for how the Late Payment Credit will be applied to a customer's account. Include within your response a statement on whether a customer will be required to speak with the Company's customer service representatives, or whether the request for the Credit will be accepted through a customer account accessible on the Company's website.
    b. Explain how the Companies calculated the reduction in revenue identified on lines 14-15.
    c. Confirm that the reduction in revenue identified on lines 14-15 presumes that 100% of customers who would be eligible for the Late Payment Credit actually requested the Credit be applied.
    d. Provide any documentation or study supporting the percentage of customers who would make a request for a Late Payment Credit to be applied.
59. Under how many different types of customer rate codes does the LFUCG currently make payments to KU? For each type of class, please provide the following information:
    a. The type of customer rate code;
    b. The number of LFUCG accounts in each such rate code;
    c. The total amount paid by the LFUCG for each such rate code during the last 12 month period; and
    d. The total net projected impact for each such rate code under the proposed rate increase.
60. For each separate LFUCG account please provide a detailed analysis showing the impact of the proposed rate versus the existing rate using the most recent 12 month actual usage and billing data. Please also provide a detailed explanation of the formula that was used to obtain this information. In particular, please show the formula or calculations indicating the total fiscal impact, including the application of the fees and all applicable adjustments (Environmental, DSM, Fuel, etc.).
61. Does KU have an estimate or general or specific information on how much revenue is derived from Fayette County customers? If so, please provide by customer class for each of the last three years as well as a comparison of the percentage of revenue that this constitutes in relation to all revenues.
62. Please refer to page 2 of 3 of the Revenue Statistics filed with your application (Filing Requirement 807 KAR 5:001 Section 16(8)(i)).

a. Please explain how KU classifies certain customers into the "Public Street and Highway Lighting" customer group.
b. Schedule I-2 indicates that there were 1,475 Public Street and Highway Lighting customers in 2017. Please identify whether this is a "rolling" total of individual customers throughout the year or whether it is a snapshot of customers on a given date.
c. Is LFUCG considered only one "customer" out of the 1,475 Public Street and Highway Lighting customers in 2017? If not, how many of the 1,475 customers does LFUCG count towards?
d. In Case No. 2016-00370, KU estimated 737 Public Street and Highway Lighting customers as of the end of the base period, which was June 30, 2018. Explain the large discrepancy between the estimate of 737 Public Street and Highway Lighting customers in the last rate case and the actual number of 475 Public Street and Highway Lighting customers in at the end of 2017.
e. Explain why KU has projected a 25% decrease in Public Street and Highway Lighting customers from 2015 to its base period and a 50% decrease in Public Street and Highway Lighting customers from 2015 to its test year.
f. Explain whether the projected decrease in Public Street and Highway Lighting customers in the base period and test year impacts rates for street lighting or any rate classification or rate codes.
g. What percentage of the base period income for the Public Street & Highway class customers is derived from LFUCG?

63. Is a cost-of-service study using the Loss of Load Probability ("LOLP") methodology described in the NARUC Electric Utility Cost Allocation Manual?
64. How many residential customers currently take advantage of the Budget Payment Plan?
65. Is KU a member of the Edison Electric Institute ("EEI")? If so, please list the payments made to EEI over the past five years by KU and LGE.
66. Is the cost of being a member of EEI included in determining expenses for revenue requirement determination?
67. Please state whether the LFUCG's franchise fee applies to all tariffs for services provided in Fayette County? If not, please identify each tariff for which the franchise fee does not apply.
68. Provide copies of Mr. McKenzie's Exhibit Nos. 2 through 12 in Microsoft Excel, with data and formulas intact.
69. Provide copies of all source documents, articles, cited documents listed in footnotes, regulatory decisions, work papers, and other sources used in the development and preparation of the testimony of Mr. McKenzie.
70. Provide copies of the source documents, work papers, and underlying data used in the development of all exhibits for Mr. McKenzie (Exhibit No. 2 through Exhibit No. 12). Provide the data and work papers in both hard copy and electronic formats (Microsoft Excel), with all data and formulas intact.
71. With reference to page 13 of Mr. McKenzie's testimony, provide the source with the names of the twenty four (24) utilities that have been downgraded from "stable" to "negative", and the one (1) utility that was downgraded from "positive" to "stable."

72. With reference to page 13 of Mr. McKenzie's testimony, provide the source for footnote fourteen (14).
73. With reference to pages 26-30 of Mr. McKenzie's testimony: (1) indicate the universe of electric and utility companies as indicated by Value Line Investment Survey, (2) the companies eliminated from each group from each of the screens; and (3) the reasons each of the companies were eliminated.
74. With reference to pages 26-31 of Mr. McKenzie's testimony, provide copies of all studies performed that compare the business, financial, and overall investment risk of Kentucky Utilities or Louisville Gas & Electric to: (1) PPL Corporation and (2) the proxy group of electric and gas companies.
75. With reference to page 43 of Mr. McKenzie's testimony, provide any and all sources or studies relied upon or which demonstrate how the Public Utility Regulatory Authority of Connecticut or the Regulatory Commission of Alaska are similarly or dissimilarly situated to the Kentucky Public Service Commission, why their commentary should be relied upon in Kentucky, and if these states are in the majority of minority of states that follow this approach.
76. With reference to page 48 of Mr. McKenzie's testimony, provide any sources or studies that agree with Mr. McKenzie's claims that we should add 100 basis points to historical and projected utility bond yields.
77. With reference to page 48 of Mr. McKenzie's testimony and page 3 of Exhibit No. 5, provide sources or studies that agree with the exclusion of low-end values or yields from Value Line, Institutional Brokers' Estimate System, Zacks Investment Research, Bloomberg, S&P, or FactSet.
78. With reference to pages 53-55 of Mr. McKenzie's testimony, provide the theoretical and empirical studies that support the use of the size premium.
79. With reference to page 56 of Mr. McKenzie's testimony, provide the theoretical and empirical studies that support the use of the ECAPM with the .25/.75 weights versus the traditional CAPM.
80. With reference to page 57-58 of Mr. McKenzie's testimony, provide any and all sources or studies relied upon or which demonstrate how the Staff of the Maryland Public Service Commission, the Regulatory Commission of Alaska, or the Colorado Public Utilities Commission are similarly or dissimilarly situated to the Kentucky Public Service Commission, why their commentary on ECAPM should be relied upon in Kentucky, and if these states are in the majority of minority of states that follow this approach.
81. With reference to pages 59-62 of Mr. McKenzie's testimony and Exhibit No. 9, provide the following: (1) the individual authorized ROEs that are used in computing the annual Allowed ROEs in Column (a); (2) for each of the individual ROEs, include all of the following: the order or docket number, the state, the utility, the decision date, the authorized ROE, the authorized common equity ratio, whether the rate case was fully litigated or settled, and whether the authorized included any specific ROE adders and/or

penalties; and (3) the data and work papers for (1) and (2) in both hard copy and electronic formats (Microsoft Excel), with all data and formulas intact. Also include electronic copies (Microsoft Excel) of the Schedule, leaving all data and formulas intact.

82. With reference to pages 62-66 of Mr. McKenzie's testimony, provide any and all sources or studies relied upon by Mr. McKenzie to form his opinion that allowed returns published by RRA are not adequate to consider or are circular in nature.
83. With reference to page 72, provide: (1) the details of the 3.1% flotation cost and how much is associated with the underwriting spread, company issuance costs, market pressure, and other expenses; and (2) the equity floatation costs paid by Kentucky Utilities and Louisville Gas & electric over the past two years.
84. With reference to page 73 of Mr. McKenzie's testimony, provide any sources relied upon by Mr. McKenzie to form his opinion that flotation costs should be allowed based on other jurisdictions implementation of allowance, and the prevalence of allowing flotation costs in the utilities market.
85. With reference to pages 74-78 of Mr. McKenzie's testimony:
    a. list the screens applied to the Value Line database in establishing the Non-Utility Proxy Group;
    b. indicate the justification for each of the screens applied to the companies in the Value Line Investment Survey in establishing the Non-Utility Proxy Group;
    c. identify the companies eliminated from the group from each of the five screens; and
    d. explain the reasons that each of the companies were eliminated.
86. Provide copies of all presentations made to rating agencies and/or investment firms by PPL, Louisville Gas & Electric, and Kentucky Utilities between January 1, 2017 and the present.
87. Provide copies of all prospectuses for any security issuances by PPL, Louisville Gas & Electric, and Kentucky Utilities between January 1, 2015 and the present.
88. Provide copies of credit reports for PPL, Louisville Gas & Electric, and Kentucky Utilities between January 1, 2017 and the present from the major credit rating agencies (Moody's, S&P, and Fitch).
89. Provide the corporate credit and bond ratings assigned to PPL, Louisville Gas & Electric, and Kentucky Utilities since the year 2012 by S&P, Moody's, and Fitch. For any change in the credit and/or bond rating, provide a copy of the associated report.
90. Provide the breakdown in the expected return on pension plan assets for Louisville Gas & Electric and Kentucky Utilities. Specifically, provide the expected return on different assets classes (bonds, US stocks, international stocks, etc.) used in determining the expected return on plan assets. Provide all associated source documents and work papers.
91. For the past five years, provide the dates and amount of: (1) cash dividend payments made to PPL by Louisville Gas & Electric or Kentucky Utilities; and (2) cash equity infusions made by PPL into Louisville Gas & Electric or Kentucky Utilities.
92. Provide the Company's authorized and earned return on common equity for Louisville Gas & Electric and Kentucky Utilities over the past five years. Provide copies of all associated work papers and source documents. Provide copies of the source documents,

work papers, and data in both hard copy and electronic (Microsoft Excel) formats, with all data and formulas intact.

93. Provide copies of the financial statements (balance sheet, income statement, statement of cash flows, and the notes to the financial statements) for PPL, Louisville Gas & Electric, and Kentucky Utilities for 2016, 2017, and 2018 (when available). Provide copies of the financial statements in both hard copy and electronic (Microsoft Excel) formats, with all data and formulas intact.