

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES)	
COMPANY FOR AN ADJUSTMENT ELECTRIC)	CASE NO. 2016-00370
OF ITS RATES AND FOR CERTIFICATES OF)	
PUBLIC CONVIENCE AND NECESSITY)	

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

In accordance with the Public Service Commission's ("Commission") December 13, 2016, 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 December 13, 2016 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.

11. When used herein, the term “rate code” shall refer to the three-digit arrangement assigned by KU to distinguish between various categories of rates. The term “rate classification” is intended to refer to a broader group, such as Restricted Lighting Service, that may contain multiple rate codes.

12. If information is sought for each of the last three years, we are seeking information from 2014, 2015, and 2016.

Respectfully submitted,



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CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that the January 11, 2017, electronic filing of this Motion 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 January 11, 2017; 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 WSCK

Requests for Information

1. 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.

2. 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.).

3. The proposed increase in rates for lighting (rate codes 4xx) ranges from 0% to 20%. The majority of streetlights used by LFUCG are proposed to be increased by 20%. Based on our analysis, Lexington streetlights represent approximately 19% of the \$30,389,694 total revenue for Lighting Service, but would constitute 52% of the proposed \$1,866,484 increase (see Sch M-2.1). Please justify the disproportionate allocation to a single customer.

4. 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.

5. Please refer to the Annual Electric Sales & Demand Forecast Process, Filing Requirement 807 KAR 5:001 Section 16(7)(c), Tab 16, Page 10 of 41. Explain how KU and its affiliates determined its lighting forecast. Please state all assumptions, policies, procedures, and protocol related to KU's lighting forecast.

6. 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), Tab 61).

- 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 1,486 Public Street and Highway Lighting customers in 2015. 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 1,486 Public Street and Highway Lighting customers in 2015? If not, how many of the 1,486 customers does LFUCG count towards?

- d. 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.
- e. 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.
- f. What percentage of the base period income for the Public Street & Highway class customers is derived from LFUCG?

7. Is a cost-of-service study using the Loss of Load Probability (“LOLP”) methodology described in the NARUC Electric Utility Cost Allocation Manual?

8. Does the NARUC Electric Utility Cost Allocation Manual recommend either the BIP or LOLP methodology?

9. Has Kentucky Utilities or LG&E ever used the LOLP methodology before this case?

10. Has any utility in Kentucky ever used the LOLP methodology? If so, please identify the utility and the PSC case number in which rates were approved using the LOLP methodology.

11. Please provide a list of every utility of which KU is aware that has used a LOLP cost-of-service study that was accepted by a regulatory commission. Please include within your response the regulatory commission, docket number, and date on which an order approving the utility

12. Please provide every article, case, regulatory agency decision, and PowerPoint of which KU is aware that describes, advocates or finds that the LOLP methodology is the appropriate one.

13. Please describe the changes in the modified Base Intermediate Peak methodology from the original Base Intermediate Peak methodology that the company has previously used.

14. Please refer to pages 7-8 of William Seelye’s testimony. Where does power service appear in Table 1 and Table 2 of Mr. Seelye’s testimony?

15. On page 9 of William Seelye’s testimony, he said cost of service is just one factor that must be considered.

- a. What factors were considered other than job creation and retention?
- b. Was job creation and retention quantified?
- c. How were those factors included within KU’s proposal?
- d. Without the non-cost-of-service factors, what were the results of the cost-of-service study by itself? Were adjustments then made?

16. On page 5 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?

17. a. During the test year, how much revenue does KU project to receive from its Basic Service Charge only, if it is increased as proposed to \$22.00 per month?

b. How much revenue would KU project to receive from its Basic Service Charge only using test-year projections for customers if it remains at \$10.75?

18. KU is proposing to identify the energy charge of the residential rate into two separate components: infrastructure and variable. If KU's proposal is approved by the Commission, please confirm that the neither the infrastructure component nor the variable component could increase without the approval of the Public Service Commission or otherwise authorized by law.

19. Is the variable component of the energy charge related to the "credit per kWh" identified in the Solar Share Rider Program? If so, please explain the relationship.

20. Please name all utilities of which KU is aware that are using a variable energy charge and infrastructure energy charge or a demand charge for residential-rate classifications.

21. How many residential customers currently take advantage of the Budget Payment Plan?

22. 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.

23. Is the cost of being a member of EEI included in determining expenses for revenue requirement determination?

24. 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.

25. In PSC Case No. 2016-00347, Louisville/Jefferson County Metro Government has asserted that the Sections 163 and 164 of the Kentucky Constitution prohibit LG&E from passing its franchise fee directly on to LG&E customers. Please state whether KU agrees that the Kentucky Constitution prohibits a utility from collecting franchise fees from customers and provide support for KU's position.

26. LFUCG is aware of at least one example under which the costs related to public fire hydrants is purportedly assessed as an additional fee to those customers who are obtaining service from the regulated utility. Is KU willing to consider a model under which the public

street light costs are billed to customers located in the areas in which the street lights are located?

27. On page 4 of Mr. Conroy's testimony he states that Kentucky's overall rates for all classes remain 22% and 23% below national and regional averages. Please provide the similar comparison for street-lighting rates and identify the information on which the average is based.

28. For the period of 2013 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.

29. Please provide any financial planning, budgeting, forecasting, and profit and loss statements for street lighting for the period 2013-2016 or that include any portion of the test year in this case. Please include documents referencing annual plans/budgets, 5 year projections, and quarterly financial updates.

30. Please verify that there is only one type of street light within each applicable rate code.

31. Does KU maintain separate accounting records for each type of street light. If so, when did KU start keeping records?

32. 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? Do these inspections take place only upon the receipt by KU of a complaint regarding a particular street light?
- b. What is the average response time to replace a non-working street light in Fayette County?
- c. Does this information differ depending upon the type of street light? If so, please provide a detailed explanation.

33. Please provide a copy of construction standards related to street lighting used by KU.

34. Please describe in detail and provide written copies of all KU's policies regarding undergrounding lights and electrical wires.

35. 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:

- a. Lexington-Fayette Urban County Government;
- b. KU's Kentucky jurisdictional operations; and
- c. KU's entire system.

36. For each of the past three years, please provide the number of street lights that KU had planned on replacing prior to that year beginning for the following:

- a. Lexington-Fayette Urban County Government;
- b. KU's Kentucky jurisdictional operations; and
- c. KU's entire system.

37. 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.

38. 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.

39. 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.

40. 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.

41. 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.

42. Please explain the difference between Lighting Service ("LS") and Restricted Lighting Service ("RLS").

43. Please explain why KU is no longer offering spot replacements for rate RLS bulbs or fixtures.

44. Please refer to the proposed textual change to the tariff on Sheet 36.
- a. Please explain the company's position on repair or replacement of Mercury Vapor and Incandescent lights if KU will not offer spot replacements of those facilities.
 - b. If KU plans to replace those facilities with a different light offering when they need to be repaired or replaced, please explain in detail the circumstances under which KU will replace those facilities and what light offering will replace each type of facility.
 - c. Please provide all pertinent documents regarding any internal discussion or research regarding LED replacements for rate codes 472, 476, 474, 471, and 473.

45. Please refer to the proposed textual change to the tariff on Sheet 36. Please explain why certain units are not available for use in residential neighborhoods except by municipal authorities.

46. Please refer to the proposed tariff rules on Sheet 35 related to LED light offerings. Please explain why certain LED units are not available for use in residential neighborhoods except by municipal authorities.

47. Please refer to the tariff provisions titled "Term of Contract" on Sheets 35.2 and 36.2. Identify how many times since 2012 customers have cancelled street lighting within five years of requesting service and were required to pay a lump sum to KU equal to the monthly charge times the number of months remaining on the five-year term.

48. a. Does KU allow, in any way, the non-governmental utilization of public street lights in Fayette County?

- b. If so, please provide a detailed explanation of each different type of such utilization that occurs in Fayette County, the extent of each type of utilization, the names of any parties that have agreements with KU regarding such usage in Fayette County, the amount and type of compensation or consideration (monetary or otherwise) that KU typically receives for such usage, copies of any pertinent agreements for such usage, and the total amount of compensation that KU receives for such activities.
- c. If so, please state whether these street lights are subject to the LFUCG franchise agreement.

49. Has KU (or someone on its behalf) ever conducted a cost-of-service study on street lighting classifications previous to the cost-of-service study produced in this case? If so, please produce a copy of the last two studies that were prepared on KU's street lighting classifications.

50. Please refer to the Excel workbook named "Att_KU_PSC_1-54_KULights.xlsx" that was filed in response to Item 54 of the Commission Staff's first request for information.

- a. Please identify how KU determined each of the prices for each specific item of material for each type of lighting offering. If KU relied on pricing from contractors or other third parties, identify each contractor or third party that

- provided pricing information and the specific information that each contractor or third party provided.
- b. Provide all documentation in KU's possession, custody, or control that relates to the prices for materials identified in this spreadsheet.
 - c. Explain why cost for materials on fixture-only rates is higher for KU than LG&E. For example, on the High Pressure Sodium, Cobrahead Fixture, 5800 Lumens, the rates for fixture only are based on materials for the fixtures costing \$283.60 for KU and only \$204.21 for LG&E.
 - d. Please explain how KU determined each component of the labor expense for each type of lighting offering.
 - e. Please explain what a "burden rate" is.
 - f. Please explain how KU calculated that a burden rate of 32.5% should be applied to materials and 14.5% should be applied to labor.
 - g. Please identify who determined that the burden rates of 32.5% for materials and 14.5% for labor were appropriate for use in calculating KU's proposed rates.
 - h. There are references in multiple worksheets that "Burden %'s are linked to Mike Woods data spreadsheet." Please provide a copy of the "Mike Woods data spreadsheet" or identify where it has previously been produced.
 - i. William Seelye stated in his testimony that the carrying charge for lighting included depreciation expenses, return on investment, income taxes and property taxes. Please provide a detailed calculation for the figure of 16.27% that KU has applied to the estimated investment per street lighting unit to include in annual rates for street lighting.
 - j. Please explain why KU believes that it is appropriate to include 16.27% of the estimated investment per street lighting unit in annual rates for street lighting.
 - k. On the worksheet entitled "KU RATE SUMMARY," the figure of 16.27% is listed under the column heading "carry charge." Please explain whether the 16.27% is appropriately considered a carrying charge.
 - l. Please state whether the estimated investment per unit represents average depreciated value of units in service or the cost of a new unit.
 - m. Please describe the formula for how the operation and maintenance component is calculated for rates in the LS and RLS classifications.
 - n. If the operation and maintenance component includes \$38.76 in labor costs, explain why this is a reasonable expense to include in rates when the average cost to replace a lamp by Wilhod, Inc., and Reed Utilities ranges from \$24.50 to \$30.50.
 - o. Please identify each cost component of the operation and maintenance expense that is included in the rates for the LED street lights.

51. Please refer to the chart listing Total Lights that is contained on the worksheet entitled "KU RATE SUMMARY" in the Excel workbook named "Att_KU_PSC_1-54_KULights.xlsx" that was filed in response to Item 54 of the Commission Staff's first request for information.

- a. Please identify whether this information lists the total number of lights at a specific point in time or over the duration of a period of time (e.g., a twelve month period).

- b. Please identify the time period on which this data is based (e.g. a twelve month period ending June 30, 2018).
- c. Please explain how the total number of lights can be expressed with a decimal (non-whole number) for most rate codes.
- d. Using the same format as this chart, including the equivalent time period, please provide the total number of total lights for the following:
 - (1) Lexington-Fayette Urban County Government;
 - (2) KU's Kentucky jurisdictional operations; and
 - (3) KU's entire system.

52. 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 a monthly tariff.

53. LFUCG has approximately 30,000 street lights, yet receives approximately 30 invoices for street lights. Please describe the number of lights billed in each of the bills by street light classification and explain whether there is any specific methodology by KU as to what lights are billed on any certain invoice.

54. Please provide copies of all invoices and corresponding documentation from September 2015 through December 2016 evidencing the purchase of any materials used for constructing, installing, or repairing lighting offerings in the LS and RLS rate classifications. The documentation should include number of units purchased and price per unit.

55. Please describe what entity or entities (whether it is in-house affiliates or third-party contractors) that provide installation, maintenance, and repair services on the lighting offerings in the LS and RLS rate classifications. Include within your response the estimated percentage of work each entity performed on the installation, maintenance, and repair services of the lighting offerings in the LS and RLS rate classifications and explain on what basis you presented that percentage (e.g., work hours, expenditures, etc.).

56. Please provide copies of the Wilhod, Inc., and Reed Utilities Street Light Contracts.

57. Please describe the process by which KU negotiates with prospective third-party contractors who may perform services related to street lighting. Include within your response whether KU issues a request for proposal for services and whether KU negotiates pricing within the proposals after they are received from the third-party contractor.

58. Using the Unit numbers and Unit Descriptions contained in the worksheet entitled "Labor" from Excel workbook named 'Att_KU_PSC_1-54_KULights.xlsx" that was filed in

response to Item 54 of the Commission Staff's first request for information, please identify the number of times the following entities performed the services identified on the worksheet for KU's Kentucky jurisdictional operations during the twelve-month period spanning from September 2015 to August 2016:

- a. Wilhod, Inc.;
- b. Reed Utilities;
- c. Kentucky Utilities (and corporate affiliates); and
- d. Any other entity (and please identify the entity or entities).

59. Provide all invoices, statements, or other documentation from the following entities for services related to street lighting provided to KU's Kentucky jurisdictional operations rendered during the during the twelve-month period spanning from September 2015 to August 2016.

- a. Wilhod, Inc.;
- b. Reed Utilities; and
- c. Any other entity.

60. Please refer to KU's Response to Item 27 of the Commission Staff's first request for information. Please identify what rate codes are contained within the "Street Lighting" and "Private Outdoor Lighting" rate schedules. If there are overlapping rate codes within these two rate schedules, explain how KU assigns a customer into a particular rate schedule.

61. Are any of the street lights in Fayette County listed in the response to PSC-1, Question No. 27, included within the Private Outdoor Lighting category?

62. Within rate code LS 472 – Ornamental Cobra Head 5,800 Lumens, please identify how many lights in service there are that are direct buried and how many there are that are pedestal mounted for the following:

- a. Lexington-Fayette Urban County Government;
- b. KU's Kentucky jurisdictional operations; and
- c. KU's entire system.

63. Please provide or describe policies and procedures related to the retirement of street lighting.

64. Please state the reasons for the retirement of street lighting (e.g., manufacturer has discontinued supply of parts, physical damage such that replacement in lieu of repair is necessary, customer has requested termination, government regulation). Include within your response the approximate percentage of street lighting that is retired based on the reasoning identified.

65. Please refer to the Depreciation Expense Worksheet that was provided by KU in response to Item 66 of the Commission Staff's first request for information.

- a. Please provide a detailed description of the assets that are contained in Account KU-137300- KY Str Lighting and Sign.
- b. There were significant increases of 8.45% and 7.27% to the depreciation base for Account KU-137300- KY Str Lighting and Sign in April and May 2016. Please provide a detailed explanation for the significant increases in this account during these months.
- c. Are the depreciation figures identified in Account KU-137300- KY Str Lighting and Sign used to calculate the street lighting (RS and RLS) rates? If so, please explain how those figures are relevant to the calculation of the street lighting rates.

66. Please refer to Exhibit JJS-KU-1. How well does the street lighting survivor curve compare with the actual replacement of lights tracked under KU's Lighting Service tariff? Quantify the response by providing the number of lights replaced each year relative to the cumulative number of lights installed in that year.

67. Does the LFUCG continue to pay for KU's cost of installing or acquiring the street light beyond the depreciable life basis of the street light?

68. Please provide the net present value of materials in service for each rate code in the street-lighting (RS and RLS) classifications.

69. For each rate code in the street-lighting classifications, please provide the number of street lights in service and the average amount of time street light units within each rate code have been in service.

70. Does KU anticipate utilizing new technology to capture savings potential in the installation, rehabilitation, and maintenance of street lights? Please describe in detail how KU plans to implement cost and energy saving measures (i.e. retrofitting old installations or introducing new technology)?

71. Provide a list of any and all municipalities in which KU has converted street lights to LED technology.

72. Please refer to the worksheet entitled "KU RATE SUMMARY" in the Excel workbook named "Att_KU_PSC_1-54_KULights.xlsx" that was filed in response to Item 54 of the Commission Staff's first request for information. Refer to the comment associated with cell BU21.

- a. Initially, the comment indicates, "better photocell to last +10 years therefore no O & M" and " Normally 1 photocell and 1 bulb changed out every 6 years @

- \$31/hour x 2 man crew.” Does this comment reflect that KU need not include O & M costs to replace a photocell? Please explain.
- b. An update states, “Add in O & M since we must leave depreciation at 26 years.” Please explain why O & M must be included if depreciation is left at 26 years.
 - c. Please state whether depreciation for LED lights in KU’s system is set at 26 years. If not, please explain what the depreciation rate for LED lights is.
 - d. Please state whether the estimated investment per unit for street lights is depreciated at an equivalent rate as stated above.
 - e. The comment also states, “2 man crew changing photocell every 13 years” and “1 new fixture every 13 years.”
 - (1) Please explain what a photocell is.
 - (2) Please explain what a fixture is.
 - (3) Please state whether KU agrees that a photocell and a fixture must be changed in LED lights on average once every 13 years.

73. On page 56 of Robert Conroy’s testimony, he states that “the average service life for an LED fixture is expected to be lower.” If KU estimates that bulbs for conventional lights must be replaced every 6 years and LED lamp must be replaced every 13 years, explain why Mr. Conroy states that the average service life for an LED fixture is expected to be lower.

74. State whether, since 2013, KU has partnered with any municipalities or entities other than LFUCG to acquire experience in new technologies, including LED lights. If so, please identify the municipalities and the nature of the project.

75. Please describe the LED pilot project KU had with LFUCG. Also, please describe any conclusions KU formulated based on this LED pilot project.

76. Provide copies of any reports, studies, analyses, summaries, or other documents or publications on which KU’s LED pilot project(s) was discussed.

77. Please describe any stakeholder or consumer advisory group meetings at which KU discussed LED lighting. Include all materials, reports, studies, analyses, summaries, or other documents that were distributed or discussed at these meetings. (For example, in PSC Case No. 2016-00274, John Malloy testified that KU and LG&E convene a Consumer Advisory Panel, and David Huff presented information on December 3, 2015, to that group on new consumer products that included LED lighting.)

78. On a lumen basis, there are no direct replacements for the most common streetlight fixtures used in Lexington. Does KU consider any of the new LED fixtures a direct

replacement for these rate codes in a street lighting application? For each new LED rate, please identify the “conventional” fixture that it would replace.

79. More broadly, please describe the most beneficial way for Lexington to update its street lighting. Consider rate code 471 as an example. Lexington spends more than a half million dollars each year under this rate code which is restricted, meaning that no additional lights will be installed. The proposed rate is 20% higher because of declining volumes and higher costs, yet the impact falls on accumulation of lights already installed. On the surface, Lexington would save money by asking for all 4,000 lumen fixtures to be replaced with the cheaper 5,800 lumen option (0% increase; not restricted service).

80. Please provide supporting documentation for the eight proposed LED rates in a side-by-side life-cycle comparison with their HPS/MH equivalent.

81. Please explain in detail how KU determined the appropriate wattages for its LED street light offerings. Within your response, please state why the KU is not offering an LED Cobra lighting luminaire lower than 80 watts.

82. Does KU own all of the poles in Fayette County for which it supplies electricity for the lighting on said poles?

83. Are any of KU’s poles used for both street lighting and any other purpose (e.g., cable attachments, electric distribution, electric transmission)? If so, are all street lights that are on poles that are also used for other purposes billed under a “fixture only” rate code? If not all such lights are billed under a “fixture only” rate code, please provide the following information:

- a. Within each rate code, the number of street-light poles for which LFUCG pays a monthly rate under the LS or RLS rate classifications that serve another purpose.
- b. Within each rate code, the number of street-light poles for which any KU customer within KU’s Kentucky jurisdictional operations pays a monthly rate under the LS or RLS rate classifications that serve another purpose.
- c. Within each rate code, the number of street-light poles for which any KU customer within KU’s entire system pays a monthly rate under the LS or RLS rate classifications that serve another purpose.
- d. Identify the other purpose or purposes that these poles serve.
- e. Explain how the various cost components of the above-mentioned poles (including installation) are allocated to the customers that benefit from the asset.

84. Please explain whether the revenues received from pole attachments offset expenses. Are the revenues received from pole attachments applied to the poles themselves or are they applied to the revenue requirement generally for KU?

85. Does KU derive any rental or other income related to the use of or attachment to utility poles or other fixtures located within the public right-of-way?

- a. If so, please provide a detailed breakdown of the annual rents or other income received from any third parties attributable to these types of properties.
- b. If possible, further provide a breakdown within Fayette County, Kentucky.
- c. Is this income considered revenue by KU; and if so, how is it allocated?

86. Please refer to proposed tariff sheet 40.3. KU is proposing to change the Attachment Agreement term from one year to ten years. Please explain why a ten-year term of service is reasonable.

87. Please refer to proposed tariff sheet 40.15. It states that the Attachment Customer shall bear all costs for removal. Please state whether it is KU's position that the Attachment Customer will be expected to bear all costs for removal if it is KU that demands removal of the Attachment Customer's attachments.

88. Please state whether KU has provided any cost justification for the proposed 3-percent late payment penalty for pole attachment fees, and if so, identify where that information has been provided.

89. Please refer to proposed tariff sheets 40.5 and 40.10, which indicate that KU may waive a written application for pole attachments and wireless facilities. Please state the conditions or circumstances under which KU would consider waiving the need for a written application for pole attachments and wireless facilities.

90. Please refer to proposed tariff sheet 40.11. Please state whether there are costs in joining the National Joint Utilities Notification System, and if so, what those costs are.

91. Please refer to proposed tariff sheet 40.11. Please explain why it is reasonable to require an Attachment Customer to utilize a different web-based system if KU elects to use a system other than the National Joint Utilities Notification System, even if it has not been approved by the Attachment Customer or the Public Service Commission.

92. Please refer to proposed tariff sheets 40.16 and 40.17.

- a. Explain why KU is demanding Attachment Customers to increase substantially their insurance coverages.
- b. State the number of times in 2014, 2015, and 2016 an Attachment Customer (to KU's knowledge) filed a claim with its insurance company related to a claim associated with a KU pole or affiliated attachment. Include within this

information the number of claims that exceeded the minimum limits that are currently required by KU's current tariff.

- c. State the number of times in 2014, 2015, and 2016 KU (or its insurance company) filed a claim with an Attachment Customers' insurance company related to a claim associated with a KU pole or affiliated attachment. Include within this information the number of claims that exceeded the minimum limits that are currently required by KU's current tariff.

93. Refer to proposed tariff sheet 40.18. State the number of times over the last three years that KU was financially damaged or injured as a result of the absence of a surety bond by a Cable Television Attachment customer or prospective customer. Please provide a detailed description of how much KU asserts it was damaged and whether it had remedies to recoup these damages.

94. Please confirm that all proposed rates under the PSA rate classification (\$7.25 per year for each wireline pole attachment, \$0.81 per year for each linear foot of duct, and \$84.00 per year for each Wireless Facility) collected from non-LFUCG customers inside Fayette County are subject to KU's franchise agreement with LFUCG.

95. How many customers are in Lighting Energy Service?

96. Please explain why the rates for Lighting Energy Service were not raised?

97. Please provide the number of net metering customers in KU's territory.

98. Please provide the number of rooftop solar facilities in KU's territory.

99. Please provide the number of electric vehicles in KU's territory.

100. How many customers in KU's territory have a wind turbine?

101. Refer to Robert Conroy's testimony at page 20, starting on line 12. Conroy references agreements that have or may be entered into by KU whereby KU provides unmetered service that is billed on calculated consumption based on the kind of equipment being served. Provide each contract for current and future unmetered service.

102. In his testimony, John Malloy mentions the web portal that is associated with the advanced metering system.

- a. Will the web portal provide the ability to group accounts, to avoid individual login requirements?

- b. Will the web portal allow for batch download of interval data from more than one account at a time?
- c. Will the web portal allow for API integration to automate downloads?

103. Do any of the advanced meters contain output capabilities supplemental to the encrypted communication network used by KU? Please state whether KU is amenable to allowing customers to retrieve data directly from such outputs, to integrate with customer-owned building automation systems.

104. What are KU's current policies, procedures, practices, and/or guidelines pertaining to the trimming and/or removal of street trees (and other trees effecting utility lines) in Fayette County that might potentially interfere with service?

105. Please describe in detail all policies, procedures, and protocol related to electronic data interchange (EDI) billing for major account customers.

106. Please refer to pages 27-28 of William Seelye's testimony. LFUCG's experience with new accounts is that contract capacities are determined by taking a percentage of the total load from a building's electrical load sheet which represents a theoretical, simultaneous maximum including engineering buffer factors. After a few months of operation, the contract capacity is adjusted based on actual load data. Given the use of both minimum demand and demand ratchet charges, the contract capacity clause in section (c) seems superfluous. Please state whether KU amenable to removing the contract capacity clause from PS Rates. If not, please explain.

107. Please refer to page 36 of the testimony of William Seelye, in which he explains why KU is not proposing a 100% demand ratchet for the PS rate classification. Please explain why this same argument is not applicable to the base demand of Large Customer Rates when considering that the base period peak of KU's customers will not occur simultaneously.

108. Please refer to page 41 of the testimony of John Spanos, in which he cites a surge in the installation of customer-owned renewable distributed generation as one reason for increasing the base demand ratchet to 100%. Please identify the applicable jurisdiction within KU's service territory and quantify the capacity of the distributed generation relative to the load provided by KU for that jurisdiction.

109. Please refer to the table below, which shows the monthly unit cost for certain street lighting identified in the Excel workbook named "Att_KU_PSC_1-54_KULights.xlsx" that was filed in response to Item 54 of the Commission Staff's first request for information. It also

shows the rates that KU is proposing to charge for each respective rate code. Please explain why it is reasonable for KU to charge a rate higher than the monthly unit cost for these rate codes.

Rate Class	Rate Code	Monthly Unit Cost	Proposed Rates
RLS	455	\$26.34	\$27.56
LS	496	\$62.08	\$65.28
LS	493	\$36.07	\$51.32
LS	490	\$13.69	\$17.45
LS	499	\$21.45	\$24.15
LS	498	\$15.60	\$19.84
LS	497	\$12.59	\$17.00
LS	492	\$11.74	\$17.12
LS	452	\$37.92	\$47.70
LS	451	\$18.18	\$22.80
LS	450	\$13.13	\$16.13
LS	489	\$20.74	\$21.95
LS	464	\$15.65	\$16.08

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