COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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ELECTRONIC APPLICATION OF LOUISVILLE)
GAS AND ELECTRIC COMPANY FOR AN)
ADJUSTMENT OF ITS ELECTRIC AND GAS) CASE NO. 2025-00114
RATES AND APPROVAL OF CERTAIN)
REGULATORY AND ACCOUNTING)
TREATMENTS)

RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY TO THE LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT'S FIRST REQUEST FOR INFORMATION DATED JULY 3, 2025

FILED: JULY 16, 2025

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON	í

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Executive Vice President of Engineering, Construction and Generation for PPL Services Corporation and he provides services to Louisville Gas and Electric Company and Kentucky Utilities Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Connie E. Bellar

Notary Public

Notary Public ID No. KYNP 63286

My Commission Expires:

COMMONWEALTH OF KENTUCKY)

COUNTY OF JEFFERSON

The undersigned, **John Bevington**, being duly sworn, deposes and says that he is Senior Director – Business and Economic Development for PPL Services Corporation

and he provides services to LG&E and KU Services Company, that he has personal

knowledge of the matters set forth in the responses for which he is identified as the

witness, and the answers contained therein are true and correct to the best of his

information, knowledge, and belief.

John Bevington

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 10th day of July 2025.

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Robert M. Conroy

> Jammy Ely Notary Public

Notary Public ID No. KYNP61560

My Commission Expires:

November 9, 2026



COMMONWEALTH OF KENTUCKY	
COUNTY OF JEFFERSON	

The undersigned, **Michael E. Hornung**, being duly sworn, deposes and says that he is Manager of Pricing/Tariffs for LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Michael E. Hornung

Subscribed and sworn to before me, a Notary Public in and before said County

and State, this 14th day of July

2025.

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

STATE OF VERMONT)
)
COUNTY OF CHITTENDEN)

The undersigned, **Timothy S. Lyons**, being duly sworn, deposes and says that he is a Partner with ScottMadden Inc., that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Timothy S. Lyons

(seal)



Notary Public Signature

Exp. Jan 31, 2027

COMMONWEALTH OF KENTUCKY)
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COUNTY OF JEFFERSON)

The undersigned, **Drew T. McCombs**, being duly sworn, deposes and says that he is Director - Regulatory Accounting for PPL Services Corporation and he provides services to Kentucky Utilities Company and Louisville Gas and Electric Company, that he has personal knowledge of the matters set forth in the responses, and that the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Drew T. McCombs

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of 2025.

Notary Public Lly

Notary Public ID No. KYNP61560

My Commission Expires:





COMMONWEALTH OF KENTUCKY)

COUNTY OF JEFFERSON

The undersigned, **Elizabeth J. McFarland**, being duly sworn, deposes and says that she is Vice President, Transmission for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that she has personal knowledge of the matters set forth in the responses for which she is

identified as the witness, and the answers contained therein are true and correct to the

best of her information, knowledge, and belief.

Elizabeth J. McFarland

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 10^{th} day of July 2025.

Notary Public

Notary Public ID No. <u>KYNP63286</u>

My Commission Expires:

January 22, 2027



COMMONWEALTH OF KENTUCKY	2
COUNTY OF JEFFERSON	

The undersigned, **Heather D. Metts**, being duly sworn, deposes and says that she is Director – Financial Planning and Budgeting for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Heather D. Metts

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2025.

Subscribed and sworn to before me, a Notary Public in and before said County and

State, this _____day of _______

Notary Public

Notary Public, ID No. KWPL3286

My Commission Expires:

Jamary 22, 2027

COMMONWEALTH OF KENTUCKY)

COUNTY OF JEFFERSON

The undersigned, **Shannon L. Montgomery**, being duly sworn, deposes and says she is the Vice President, Customer Services for Kentucky Utilities Company and

Louisville Gas and Electric Company and an employee of LG&E and KU Services

Company, that she has personal knowledge of the matters set forth in the responses for

which she is identified as the witness, and the answers contained therein are true and correct

to the best of her information, knowledge, and belief.

Shannon L. Montgomery

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 10^{th} day of July 2025.

Notary Public

Notary Public ID No. <u>KYNP63286</u>

My Commission Expires:

January 22, 2027

COMMONWEALTH OF KENTUCKY)

COUNTY OF JEFFERSON

The undersigned, **Tom Rieth**, being duly sworn, deposes and says that he is Vice President – Gas Operations for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Tom Rieth

Tom Rieth

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 11th day of July 2025.

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

COMMONWEALTH OF KENTUCKY		
COUNTY OF JEFFERSON)	

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Vice President –Energy Supply and Analysis for Kentucky Utilities Company and Louisville Gas and Electric Company and is an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Charles R. Schram

Subscribed and sworn to before me, a Notary Public in and before said County and State this 10th day of 2025.

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

Jamary 22, 2027



COMMONWEALTH OF PENNSYLVANIA)	
)	SS:
COUNTY OF CUMBERLAND)	

The undersigned, John J. Spanos, President, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests and that the answers contained there are true and correct to the best of his knowledge, information and belief.

Subscribed and sworn to before me by John J. Spanos on this 13th day of July, 2025.

Commonwealth of Pennsylvania - Notary Seal MEGAN LYNN ECKRICH - Notary Public **Cumberland County**

My Commission Expires September 16, 2027 Commission Number 1264513

My Commission Expires September 16, 2027

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Peter W. Waldrab**, being duly sworn, deposes and says that he is Vice President, Electric Distribution, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Peter W. Waldrab

Subscribed and sworn to before me, a Notary Public in and before said County and State, this _______day of ________2025.

Notary Public J. Elpy

Notary Public ID No. KYNP61560

My Commission Expires:

November 9, 2026

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 1

- Q-1. Refer to the testimony of Timothy S. Lyons at page 27. Please explain why the Companies' proposed base rates for the Rate LS class that were updated to reflect the alleged current cost of service while the proposed base rates for the Rate RLS class were updated to reflect a uniform increase in class revenues.
- A-1. The proposed rate for Rate LS is designed to recover the annual revenue requirement of new lighting installations to ensure new lighting installations reflect their cost of service. See Exhibit TSL-13 in Mr. Lyons Direct Testimony for derivation of the annual revenue requirement. Rate RLS is restricted to existing installations as of July 1, 2021, and thus new lighting installations are not eligible for Rate RLS.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 2

- Q-2. Refer to the testimony of Timothy S. Lyons. Please describe the way that load profiles were constructed for each of the KU and LG&E lighting rate schedules.
- A-2. The load profiles were based on KU and LG&E's hourly load forecast. See attachment "2025 1 KU Demand Data Redacted.xlsx" and "2025 8 LGE Demand Data.xlsx" to KU's and LG&E's response to PSC 1-54.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 3

- Q-3. Please explain why the rate for each lighting offering in Rate LS is not proposed to be increased by the same percentage.
- A-3. The proposed rate for Rate LS is designed to recover the annual revenue requirement of new lighting installations to ensure new lighting installations reflect their cost of service. See Exhibit TSL-13 in Mr. Lyons Direct Testimony for derivation of the annual revenue requirement.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 4

Responding Witness: Michael E. Hornung

- Q-4. Refer to TSL-13. Please explain how the Companies determined the kW per light.
- A-4. See the response to Question No. 11.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 5

Responding Witness: Michael E. Hornung

- Q-5. Refer to TSL-13. Please explain how the Companies determined the useful life.
- A-5. See the response to Question No. 13.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 6

Responding Witness: John J. Spanos

- Q-6. Refer to the testimony of John J Spanos, VII-232. There is a substantial deviation between the fitted (smooth) and original survivor curve for street lighting and signal systems, corresponding to a clear change in age-specific failure rate at about 45 years. Does witness Spanos or the Company have any explanation for the sharp decline in failure rates at older ages?
- A-6. The page reference for this account is for the Kentucky Utilities study. The corresponding page VII-221 in the LG&E depreciation study provided in the response to PSC 1-32 does not show a substantial deviation between the fitted (smooth) and original survivor curve for street lighting and signal systems.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 7

- Q-7. Refer to TSL-13. Please explain how the Companies determined the Total Installed Cost.
- A-7. Total Installed Cost was based on estimated material and labor cost for each unit. See the attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 8

- Q-8. Refer to TSL-13. Please explain how the Companies determined the Annual Non-Fixture Maintenance Cost.
- A-8. The Annual Non-Fixture Maintenance Cost was based on forecasted test year lighting repair costs divided by the number of lamps. See the attachment provided in response to Question No. 7.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 9

- Q-9. Does KU, LG&E, or its corporate affiliates receive any form of rebates or reimbursement from LED manufactures, distributors, or retailers? If so, how and where is that revenue booked?
- A-9. No.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 10

- Q-10. Does the Company track expenses for new installation separate from repairs and the type of repair be known (e.g. problem related to wiring, fixture, pole, etc.)? Why or why not?
- A-10. Yes. New installations are charged to a New Business Street lighting Budget. Repairs are charged to a capital or O&M Repair/Replace Defective Street lighting Budget. Expenses are tracked in this manner in order to distinguish new business work from repair work, capital work from O&M work, to aid in budgeting, and is a generally accepted good business practice.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 11

- Q-11. For the period after July 2020 to the present, please provide any Company 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 the Company as it relates to street lighting. Bookmark the following documents in your response:
 - a. Technical specifications or metrics established by the Company 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 offerings and LED equipment supply options.
- A-11. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 12

Responding Witness: Michael E. Hornung

- Q-12. Identify the useful life for each type of fixture within the proposed Restricted Lighting Service tariff.
- A-12. The RLS rates are given a uniform increase amongst all its rate codes to meet its revenue requirement. This uniform increase prevents the RLS rates from being assigned a useful life for carrying charges. However, had the RLS rates been calculated at cost of service, the estimated useful life for each RLS fixture would have been 25 years.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 13

- Q-13. LED fixtures service lives typically range from 50,000 to 100,000, and may extend as high as 250,000 hours or 12.5, 25, or 62 years respectively. As such these extended life spans, should lead to projections of lower annual O&M costs as a component of rate construction. Yet the projected LED LS rates remain at, near, or even higher than the RLS they are replacing.
 - a. Is there a projected timeframe or LED saturation level where the Company expects these O&M levels to begin to go down to reflect the reduced O&M costs of LED fixtures?
 - b. If the Company does not believe increased deployment of LED fixtures will reduce the O&M costs for leased lighting please elaborate why?
 - c. Additionally, public entities have seen a drastic reduction in the cost of outdoor area lighting in the past several years, while efficiency continues to increase. Again, the current LED LS rate constructions appear not to reflect this significant downward trend in fixture costs. Please explain the Company's experience in LED fixture costs over the past several years?
- A-13. The Company uses an estimated useful life of 100,000 hours or 25 years (based on 4,000 burn hours per year). While some LED fixtures have a calculated or theoretical lumen maintenance (L70) of 250,000 hours, the other components of those fixtures are generally rated for no more than 100,000 hours and no vendor has offered a warranty for more than 10 years.
 - a. No. All O&M savings are built into the proposed LS rates and passed through to the customers.
 - b. LED fixtures will reduce costs to customers, primarily in the area of energy savings and overall cost of ownership. Most existing RLS fixtures have a comparable LED with a lower monthly rate. The cost built into the Company's proposed LED rates include capital installation costs, fixed carrying charge (rate of return, straight line depreciation, income taxes, property taxes), annual distribution energy at LE rate, and non-fixture O&M cost of \$2.15-LGE per fixture per year. That non-fixture O&M cost

represents the Company's O&M expenses for repair efforts such as cable repairs (not cable replacement), fixing leaning poles, replacing globes/refractors/shields, etc. These O&M expenses are not expected to change as a result of LED deployment. The LED LS rates do not include the capital costs to replace the bulbs and photo controls of RLS fixtures, which represent the majority of lighting repairs and are generally thought to be an area of significant O&M savings for lighting customers and providers. Capital maintenance expenses are not expressly captured in the LS/RLS rate design, those expenses are captured through the carrying cost, specifically the depreciation schedule (which is based on the LED's expected useful life and essentially represents the typical replacement schedule). Furthermore, the Company's RLS rates do not represent the true cost of ownership for those fixtures due to downward pressure on those rates through historical rate case settlements. Additionally, the Company continues to see increases in labor costs for Line Technician resources who perform installation and maintenance of lighting assets, pushing LS LED rates higher.

c. LG&E and its customers have already realized most of the cost reductions attributable to increased LED fixture efficiency. LED efficiency is subject to the law of diminishing returns. Early on in LED manufacturing, LED efficiency saw massive, dramatic improvements. This meant that LED chips could be made smaller, put out more lumens, and more lumens per watt. This allowed manufacturers to reduce the size of the LED fixtures/housings, saving expenses on metals required for production. As LED technology became more ubiquitous, the LED chips/boards also became cheaper to produce and acquire. The gains from more efficient LEDs and smaller fixtures has started to level off over the past 5 years and as a direct result, LED fixture prices have also leveled off and the Company has started to see typical year-to-year increases seen in other materials and goods. See the table below for a comparison of rates and fixture prices from the proposed rates in the Company's 2018, 2020, and 2025 rate cases.

LG&E

	20	2018		2020		25
Rate Code	Proposed Rate	Fixture Price	Proposed Rate	Fixture Price	Proposed Rate	Fixture Price
493	\$8.74	\$125.40	\$9.46	\$126.07	\$11.29	\$139.52
490	\$9.63	\$148.50	\$10.47	\$167.23	\$12.70	\$183.41
491	\$11.65	\$203.50	\$12.46	\$218.06	\$14.92	\$237.42
492	\$13.65	\$302.50	\$15.77	\$324.39	\$18.54	\$345.47
496	\$5.17	\$148.50	\$5.67	\$167.23	\$6.36	\$183.41
497	\$7.19	\$203.50	\$7.65	\$218.06	\$8.59	\$237.42
498	\$10.36	\$302.50	\$10.97	\$324.37	\$12.20	\$345.47
499	\$7.25	\$330.00	\$7.41	\$330.40	\$8.41	\$373.57

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 14

- Q-14. What is the percentage of street lights throughout the Company's system that is an LED light?
- A-14. As of July 2025, 46.4% of outdoor lights provided by the Company to customers are LED lights.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 15

- Q-15. Does the Company have any systematic plans to convert restricted lighting to LED, such as geography or rate code?
- A-15. No. The Company will continue to provide fixtures and poles for non-LED lights as existing fixtures and poles need to be replaced, but will do so only from the Company's existing inventory. When those inventory items are exhausted, a lighting customer whose non-LED fixture or pole needs to be replaced will need to convert to a new LED fixture, pole, or both under Rate LS. The Company has exhausted its inventory of Rate RLS fixtures with the exception of Acorn and Colonial fixtures that are still being use for spot replacements.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 16

Responding Witness: Peter W. Waldrab

- Q-16. In a prior rate case, the Company defined the end of service life for an LED fixture when the fixture fails completely or lumen output is reduced below 70% (L70) of initial output rating.
 - a. Does the Company still use the same definition for end of service life for an LED fixture?
 - b. What are the Company's plans for service/maintenance for LED lights when they near or reach the end of service?
 - c. When sourcing or purchasing LED fixtures, does the Company have a minimum allowable/acceptable L70 rating for fixtures in hours? If so, what is that rating?
 - d. Please provide the L70 rating for each LS LED fixture/rate code currently in use

A-16.

- a. Yes. The Company defines end of service for an LED as when the fixture fails or when the lumens depreciate to 70% of their initial output (L70) and that depreciation becomes noticeable to the human eye.
- b. LED fixtures will be replaced upon failure or when, after customer request or visual inspection, Company personnel determine the LED should be replaced because the lumen output has depreciated beyond a reasonable level.
- c. L70 is not a deciding factor in fixture selection because the Company expects other components of the LED fixture (e.g., transformer/driver or surge protectors) to fail prior to the LEDs reaching L70. Nonetheless, the Company expects all of the LED fixtures to have an L70 of at least 100,000 hours. Due to the integrated design of LED fixtures, failure of these other components requires replacement of the entire LED fixture.
- d. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 17

- Q-17. Please refer to the Rate LS and RLS. Please provide an updated cross-reference table (excel) that associates all existing RLS rate codes with their LS LED equivalent(s). Please ensure the cross-reference table includes the RLS and LS cost, and if applicable for LS rates the pole category and charges.
- A-17. See attachment being provided in a separate file with the rates cross-reference. Rate charges are available on the LGE-KU website at https://lge-ku.com/regulatory/rates-and-tariffs.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 18

- Q-18. For each street lighting type within Rates LS and RLS, please identify the number of accounts on each type as of June 30 on each year since 2020 for the Company.
- A-18. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 19

Responding Witness: Peter W. Waldrab

- Q-19. Please identify the number of each type of lighting in Rate RLS each Company anticipates replacing for each year over the next 5 years for the Company.
- A-19. The Company has no planned replacement program for street lights. The company replaces street lights at the request of customers, or when dictated by failure, damage, or unsatisfactory physical condition.

The Company does not track replacements by lighting type. The Company replaced fixtures in the approximate amounts indicated below over the last three years, and would anticipate a similar amount over the next 5 years.

	2022	2023	2024
LG&E	1846	1994	1736

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 20

- Q-20. For each type of street-lighting pole, please identify the number of accounts on each type as of June 30 on each year since 2020 for the Company.
- A-20. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 21

Responding Witness: Peter W. Waldrab

- Q-21. Please provide a breakdown for the following:
 - a. For each individual rate code in LS and RLS (i.e. LC2, LC4, 490, 470), how many fixtures and poles does Louisville Metro pay as of June 30, 2025, and in the base year?
 - b. Based off of those numbers, what would the projected annual cost per rate codes of LS and RLS be for Louisville Metro under the current tariffs? What would the annual cost be for Louisville Metro under the proposed tariffs in this rate filing?

A-21.

- a. See attachment being provided in a separate file.
- b. The Company has not performed the specific calculation for Louisville/Jefferson County Metro Government. See Schedule M-2.3 at Tab 66 of the filing requirements for the proposed increase for each rate class.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 22

- Q-22. Please state how many new public street lights were installed by LG&E 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: Louisville/Jefferson County Metro Government and LG&E's entire system.
- A-22. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 23

Responding Witness: Peter W. Waldrab

- Q-23. For each of the past three years, please provide the number of street lights that LG&E had planned on replacing prior to that year, and a summary of the actual number replaced that year for the following: Louisville/Jefferson County Metro Government (extrapolate if needed) and LG&E's entire system.
- A-23. The Company has no planned replacement program for street lights. The company replaces street lights at the request of customers, or when dictated by failure, damage, or unsatisfactory physical condition.

The Company does not track replacements by lighting type. The Company replaced fixtures in the approximate amounts indicated below over the last three years, and would anticipate a similar amount over the next 5 years.

	2022	2023	2024
LG&E	1846	1994	1736

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 24

Responding Witness: Michael E. Hornung / Peter W. Waldrab

- Q-24. Please explain how the Companies determined the One-Time Conversion Fee and the Monthly Conversion Fee if Customer requests to change current functioning non-LED fixture to an LED fixture.
- A-24. The Companies are not proposing to change the One-Time Conversion Fee and the Monthly Conversion Fee. The support for current conversion fee charges can be found on page 37 and Exhibit WSS-5 of Steve Seelye's direct testimony in the 2020 Rate Case.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 25

- Q-25. Please explain in detail LG&E's current policies, procedures, practices, and/or guidelines for maintaining street lights in Jefferson County and provide copies of the same.
 - a. Does LG&E regularly inspect individual street lights or the collective street lighting in Jefferson County?
 - b. Do these inspections take place only upon the receipt by LG&E of a complaint regarding a particular street light?
 - c. What is the average response time to replace a non-working street light in Jefferson County?
 - d. Does this information differ depending upon the type of street light? If so, please provide a detailed explanation.
 - e. Would AMI deployment as proposed in the Company's application provide information to the Company that would improve any of the response times or costs related to lighting?
- A-25. The Company maintains its street lights and other lighting products consistent with the original Company installation standards, the Terms and Conditions of the Lighting Service and Restricted Lighting Service Schedules, and in compliance with 807 KAR 5:041. Electric: Section 2 General Requirements, Section 3 Acceptable Standards, and Section 5 Maintenance or Continuity of Service.
 - a. The Company conducts proactive lighting patrols as part of its normal operations. These night-time patrols are integrated into the Company's normally scheduled operations for outage response activities. When not responding to outages, the Company's outage technicians, who are on duty 24 hours a day, 7 days a week, undertake lighting patrol and maintenance activities, among other duties that they perform daily.

- b. No, LG&E streetlights are inspected proactively via lighting patrols. See the response to Question No. 25 (a).
- c. The Company does not track average response time to replace a non-working light by county. See the response to Question No. 28 for LG&E-wide data on average response time.
- d. No.
- e. No. Lighting is typically unmetered and therefore is not expected to be impacted by the proposed AMI deployment

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 26

Responding Witness: Peter W. Waldrab

- Q-26. Please describe in detail all maintenance that must be performed by the Company 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.
- A-26. Normal maintenance consists of replacing the items listed in the table below as needed. The current unit costs are for materials specific to each installation and do not include associated installation costs (labor, minor materials, equipment, etc.), which are not tracked at this level of detail. Maintenance is required when the Company has identified or received a report that the street light is inoperative. The most common maintenance performed on a street light is the replacement of a burned out bulb and/or replacement of an inoperative photoelectric control. Additional maintenance activities include cable/conductor repair/replacements, pole replacements, and replacing mast arms.

Normal Street Light Maintenance Material

Item #	Unit Description	Unit Cost
7001343	LAMP, HPS,4000L,50W	\$8.39
7001344	LAMP,HPS,5800L,70W	\$6.63
7001345	LAMP, HPS, 100W, 9500L	\$6.53
1186394	LAMP, HPS, 150W, 16000L	\$7.54
1186401	LAMP, HPS, 250W, 100V, 27500L	\$8.24
7001347	LAMP, HPS, 400W, 100V, 50000L	\$7.79
0949519	LAMP, HPS, 1000W	\$44.32
7001348	LAMP, MV, 175W, 8000L, DELUXE WHITE	\$6.27
7001349	LAMP, MV, 250W, 13000L, DELUXE WHITE	\$6.60
7001350	LAMP, MV, 400W, 25000L, DELUXE WHITE	\$9.66
3005449	LAMP, PULSE START MH, 150W, MEDIUM BASE	\$27.21
3005450	LAMP, PULSE START MH, 350W, MOGUL BASE	\$26.10
7005980	LAMP, MH, 1000W, 110000L	\$26.12

Response to Question No. 26 Page 2 of 2 Waldrab

7001331	CONTROL,PHOTOELECTRIC,ELECTRONIC,105/13 0 VOLTS,1000W.,1800VA.,GRAY COVER,CDDMIUM-SULFIDE PHOTOCELL,MINIMUM 160 JOULE MOV ARRESTER,TWIST LOCK BASE,DUSK TO DAWN,USE IN 120V ONLY	\$4.64
7001332	CONTROL,PHOTOELECTRIC,ELECTRONIC,105/28 5V,1000W,1800VA,BLUE COVER,CADMIUM SULFIDE PHOTOCELL,MINUMUM 160 JOULE MOV ARRESTER,TWISTLOCK BASE,DUSK TO DAWN,USE ON 240V ONLY	\$5.58
3027115	CONTROL,PHOTOELECTRIC,ELECTRONIC,TWIS T-LOCK BASE,YELLOW COVER,420/530 VOLTS,1000W,1800VA,CADMIUM- SULFIDE PHOTOCELL,MINIMUM 160 JOULE MOV ARRESTOR,DUSK TO DAWN,USE ONLY ON 480V	\$41.02
7001718	CAP,SHORTING,LOCKING TYPE, TO SHUNT LUMINAIRE CIRCUIT SO THE FEED COULD BE FROM A REMOTE LOCATION	\$4.00
7010269	STARTER,LIGHTING,HPS,50W-400W,PLUG IN TYPE	\$20.51
202777	LED	Φ 252.55
3027572	FIXTURE COLONIAL	\$ 373.57
3024333	FIXTURE OB HEAD	\$ 121.16
3024334	FIXTURE OB KIT	\$ 139.52
3024532	FIXTURE CORRA	\$ 183.41 \$ 237.42
3024534		T
3024533	FIXTURE COBRA	\$ 345.47

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 27

- Q-27. Please provide both the number and type of public street lights for Louisville Metro accounts for which service or maintenance was performed in each of the last three years and the same information for both LG&E's entire system. In addition, please provide the basis for generating the above repair or maintenance order (i.e., referral from 311, customer complaint, LG&E) for each of the above.
- A-27. LG&E system-wide repair orders for street and other outdoor lights during the periods in question are in the table below. LG&E does not track repairs by type. LG&E does not track street light repairs by customer.

	2022	2023	2024
System-wide	8,209	9,346	8,485

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 28

- Q-28. Please provide the average time to repair a malfunctioning street light from the time of discovery, either by public reporting or Company representative, initiation of work order; to the time the light is restored to operation, work order is closed.
- A-28. LG&E's data shows an average time to repair (from discovery to the time the light is restored to operation) was 3.9 days in 2024 and 4.9 days in 2023. LG&E recently found inaccuracies in this data reporting, however. LG&E manages to a 2 day or less repair time on street lights, and has met this target. Delays in closing the work tickets associated with these repairs mean that the time-to-repair data provided here is not an accurate representation of actual field conditions. This issue has since been corrected and will reflect in future reporting.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 29

Responding Witness: Peter W. Waldrab

- Q-29. Please provide a chart of maintenance and repair calls for each street light for Louisville Metro and the total cost for each call, including both materials and labor.
- A-29. LG&E does not track repairs by customer. See attached for a chart of maintenance and repair calls by address for all of Jefferson County, for 2023 through 2025. System-wide, LG&E has approximately 10,002 streetlight work orders per year at an approximate average cost of \$504 per order.

See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 30

- Q-30. Please provide separately the number of calls from the public regarding street lights paid for by Louisville Metro and the rest of the Company's system.
- A-30. The Company does not track the number of calls from the public regarding street lights paid for by Louisville Metro and the rest of the Company's system.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 31

Responding Witness: Peter W. Waldrab

- Q-31. Please provide any internal policies or procedures with regards to street light maintenance, repair and replacement.
- A-31. The procedure for street light maintenance, repair, and replacement consists of the following work practices:
 - A reported light outage will be investigated within 2 working days by a trouble shooter or service technician.
 - o Initial response is comprised of checking the bulb, photocell, voltage, and starter (if applicable).
 - Replacement of any of these failed components will be conducted at that time.
 - If it is identified that none of the above components are responsible for the lighting failure, the work will be transferred to the lighting repair work queue.
 - A second-level response to light outages involves further investigation into the cause of the voltage failure.
 - o Typical causes include:
 - Defective fixtures
 - Fuses
 - Third party damage (dig-ins or broken poles)
 - Failed conductors
 - Opending on the type of repair needed, repairs may be made at this time or scheduled for a later date. Boring or trenching a new feed would typically be done at later date to allow for UG line locates required by Ky Dig Law. The time frame for this repair will be heavily dependent on weather, customer or city property impacts, and/or soil dynamics

See also the response to Question No. 25.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Ouestion No. 32

- Q-32. Is LG&E able to ascertain, at any given time, the number of street lights paid for by Louisville Metro 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 Louisville Metro 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.
- A-32. No, LG&E cannot ascertain the number of street lights that are paid for by Louisville Metro that are operable at any given time. However, as described in the response to Question No. 15(a), LG&E proactively identifies street light outages and relies upon customers to report service problems
 - a. All lights, unless reported otherwise, are considered to be in proper working order.
 - b. Louisville Metro pays a monthly tariff rate for all street lights it has requested and that rate schedule provides LG&E two business days to initiate a repair after notification by a customer.
 - c. See the response to Question No. 28.
 - d. See the response to Question No. 25(d).

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 33

- Q-33. Please state how many existing street lights are scheduled (or anticipated) to be replaced by the Company over the next five years for which Louisville Metro 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.
- A-33. LG&E has no scheduled replacements for the next five calendar years for Louisville Metro street lighting fixtures. Street lights on the Restricted Lighting Service rate will be replaced at fixture failure with an equivalent LED, or at bulb failure once non-LED bulb supplies are exhausted. The Company cannot anticipate the rate at which RLS fixtures will fail and subsequently be replaced with an equivalent LED.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 34

- Q-34. Please estimate based on historical maintenance how many existing street lights are anticipated to be replaced by LG&E over the next five years within Jefferson County. Please provide an anticipated breakdown by rate code based on historical failures and replacements.
- A-34. See the response to Question No. 23 for approximate fixture replacements for 2022, 2023, and 2024. Average annual fixture replacements is 1,859. The Company does not track replacements by rate code or by county. Based on historical maintenance the Company expects to replace approximately 1,859 fixtures with LED fixtures each year over the next 5 years.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 35

Responding Witness: Peter W. Waldrab

- Q-35. The Company often promotes technological advancements, including improved communication through web pages and mobile applications such as the LG&E KU ODP mobile app.
 - a. Is there a function on the Company's mobile app that enables a user to report and "Geo-Tag" inoperable or malfunctioning street lighting?
 - b. If not, does the Company plan to include this capability in any mobile application upgrades, specifically the ability to "Geo-Tag" or more precisely locate the street light?
 - c. Explain what, if any, improvements the Company has made to its website since the last rate case to report street light outages?

A-35.

- a. No.
- b. The Company is exploring the feasibility of adding functionality to their mobile app that would enable users to report street light outages by using a map to identify and select the streetlight in question.
- c. The Company has not made any changes to its website since the last rate case to report street light outages. The current "Report a Streetlight Outage" form that can be found here:

https://lge-ku.com/outages/report/streetlight

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 36

Responding Witness: Drew T. McCombs / Heather D. Metts / Peter W. Waldrab

- Q-36. Refer to LG&E Tab 62 Schedule I-2 for Public Street & Highway Lighting. The revenue for Public Street and Highway Lighting has decreased each of the most recent five calendar years.
 - a. Please explain why there has been a trend for decreasing revenue for Public Street and Highway Lighting over this 5-year period.
 - b. Given the decreasing trend over the last 5 years (which actually dates back to 2017 based on prior filings), please explain why the Company expects an increase in revenues from the base year to the test year.

A-36.

- a. Lighting contracts that are solely related to the Public Street and Highway Lighting revenue class have seen a decrease over the past 5 years. All lighting contracts, including those that are included in other revenue classes, have maintained consistent annual revenues over the past 5 years.
- b. The revenues do not increase from the base year to the test year. Consistent with actual trends, the revenues decrease from \$1,412,772 in the base year to \$1,360,089 in the test year.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 37

Responding Witness: Drew T. McCombs / Heather D. Metts / Shannon L. Montgomery / Peter W. Waldrab

- Q-37. Please refer to Public Street & Highway Lighting, LG&E Tab 62 Schedule I-2.
 - a. How much of the base-year revenue is associated with Louisville Metro accounts?
 - b. How many of the base-year customers are Louisville Metro?
 - c. Why does the number of customers increase from 702 in the base year to 891 in the test year?

A-37.

- a. Louisville Metro accounts represented 22.7% of the Public Street & Highway Lighting revenue for the first six months of the base period. The last six months of the base period are based on budgeted street light data, which is not split out by customer.
- b. As of July 4, 2025, Louisville Metro accounted for 15 of the Public Street and Highway Lighting customers.
- c. The increase in the number of customers in the test year is due to a difference in how customer counts are obtained for actual and forecasted periods. Specifically, customer counts are not forecasted for tariffs that do not have a customer charge and forecasted allocations to get revenue from a tariff level to a revenue class level do not always match with how actuals are recorded. There is no impact to rates as a result of these differences.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 38

- Q-38. Would the Company recognize cost savings if a customer committed to converting large numbers of traditional street lighting to LED street lighting?
- A-38. No. Any costs savings are embedded in the LS LED rates and passed through to the customer.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 39

Responding Witness: Michael E. Hornung / Shannon L. Montgomery

- Q-39. Under how many different types of customer rate codes does the Louisville Metro currently make payments to LG&E? For each type of class, please provide the following information:
 - a. The type of customer rate code;
 - b. The number of Louisville Metro accounts in each such rate code;
 - c. The total amount paid by the Louisville Metro 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.
- A-39. There are three account classes associated with Louisville Metro's accounts and rate codes: commercial, public authorities, and residential.
 - a. See attachment being provided in a separate file.
 - b. See attachment being provided in a separate file.
 - c. See attachment being provided in a separate file.
 - d. The Company has not performed the specific calculation for each of the Louisville Metro accounts. See Schedule M-2.3-E at Tab 66 of the filing requirement for the proposed increase for each rate class.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 40

Responding Witness: Shannon L. Montgomery

- Q-40. Please provide a schedule showing the following information for each current Louisville Metro account for 2023, for 2024 and the first 6 months of 2025 separately by year and not added together.
 - a. Applicable tariff.
 - b. Other tariffs that could be applicable to this account.
 - c. Total sum paid.

A-40.

- a. See attachment being provided in a separate file. The information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.
- b. All customer accounts are currently on their correct rate. Accounts on a General Service rate may be eligible for General Time-of-Day Energy or Time-of-Day Demand rates. Accounts on a Residential Service rate may be eligible for Residential Time-of-Day Energy or Time-of-Day Demand rates.
- c. See the response to part (a).

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 41

Responding Witness: Drew T. McCombs

- Q-41. Does LG&E have an estimate or general or specific information on how much revenue is derived from Jefferson 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.
- A-41. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 42

Responding Witness: Timothy S. Lyons

- Q-42. Did the cost of service study prepared for this case include any categories of costs used to determine customer charge which were not included in the cost-of-service study prepared by the Company's witness in the 2020 rate case? If the answer is yes, please list the nature of the costs and the amount.
- A-42. The categories of costs classified as customer in the current class cost of service study were consistent with those classified as customer in the prior 2020 rate case. Costs classified as customer were used to support the proposed customer charges

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 43

Responding Witness: Timothy S. Lyons

- Q-43. Were there any changes in the methodology in the Company's cost of service study in this case from the 2020 cost of service study? If the answer is yes, please describe the changes.
- A-43. The methodology used to functionalize, classify, and allocate costs in the cost-of-service study filed in the current base rate case proceeding is generally consistent with the methodology filed in the prior base rate case proceeding in Case No. 2020-00350.

There are major exceptions. First, is the allocation of production fixed costs. Production fixed costs were allocated to each rate class in the current base rate case proceeding based on the 6-CP method. Production fixed costs were allocated to each rate class in the prior base rate case proceeding based on the Loss of Load Probability (LOLP).

Second, the transmission plant and related costs were allocated in the current base rate case proceeding based on the 6-CP method. Transmission costs were allocated to each rate class in the prior base rate case proceeding based on non-coincident peak (NCP) demands at transmission voltage.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 44

Responding Witness: Peter W. Waldrab

- Q-44. Please provide a copy of every vegetation management plan employed by LGE/KU during the last 5 years for:
 - a. distribution lines; and
 - b. transmission lines.

A-44.

- a. See attachment being provided in a separate file.
- b. See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 45

- Q-45. Please provide a listing by type of trees and number of same removed from transmission lines in Jefferson County during this five year cycle.
- A-45. The company does not track type (species) or the number of trees removed.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 46

- Q-46. By the categories of high voltage and low voltage transmission lines, please provide how many trees and corridor miles have been cleared and how many remain to be cleared under the current five year plan.
- A-46. Beginning in 2022 through June 30th of 2025, the company has completed 2,908 miles with 1,545 miles remaining. The company does not track individual tree removals.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 47

Responding Witness: Charles R. Schram

- Q-47. Refer to the testimony of Charles R. Schram, especially at pages 9 through 11. Please provide the modeling referenced on page 10, line 2.
- A-47. For solar models and outputs from those models, see Exhibit CRS-7 at Load_Forecasting\Electric_Load_Forecast\Electric\Forecast\PV\model and output.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 48

Responding Witness: Charles R. Schram

- Q-48. Refer to the testimony of Peter W. Waldrab, pages 37:6 through 41:23. Please provide 2024 hourly average per customer residential load profiles for each of the Companies. Also, please provide 2024 hourly average per customer load profiles for residential customers participating in the Companies' net metering programs.
- A-48. For the 2024 hourly average per customer residential load profiles, see the response to KYSEIA 1-17. The Company has not created load profiles for residential net metering customers, which would require significant original work.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Ouestion No. 49

Responding Witness: Peter W. Waldrab

- Q-49. Refer to the testimony of Peter W. Waldrab, at pages 37:6 through 41:23. Please provide the Companies' line transformer sizing practices, including the types and sizes stocked, the methods or tables used to calculate transformer rating to be installed.
- A-49. When sizing equipment for new or additional load, it is the Company's policy generally to size pole mount or padmount transformers so that the expected peak load does not exceed the base rating of the transformer. However, transformers can tolerate loading over base rating at varying amounts, depending on type and size. Pole mount transformers can be loaded to 36% to 80% (depending on size) over base rating in summer or 58% to 100% in winter before requiring changeout. Single phase padmount transformers can be loaded to 43% to 90% over base rating in summer or 59% to 110% in winter before requiring changeout. Three phase padmount transformers can be loaded to 45% to 67% over base rating in summer or 60% to 84% in winter before requiring changeout. These changeout guidelines are spelled out in LG&E/KU Electric Standards page 20.00.04.

See attachment being provided in a separate file.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 50

Responding Witness: Michael E. Hornung

- Q-50. Please refer to the proposed changes to NMS-2.
 - a. Please confirm that the Company proposes to decrease the buy-back rate for solar.
 - b. Please confirm that, if the Company's proposed changes to NMS-2 are approved by the Commission, existing customers who made investment decisions on solar generating facilities with a 20-year or greater service life will be impacted based on the proposed changes.

A-50.

- a. Confirmed.
- b. The Company does not possess information regarding customers' investment evaluations.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 51

Responding Witness: Robert M. Conroy

- Q-51. Please confirm that KRS 278.466 does not require a utility to cap the cumulative generating capacity of net metering systems reaches one percent (1%) of a utility's single hour peak load during a calendar year.
- A-51. KRS 278.466(1) allows, but does not require, a utility to implement a 1% cap on net metering capacity:

If the cumulative generating capacity of net metering systems reaches one percent (1%) of a supplier's single hour peak load during a calendar year, the supplier shall have no further obligation to offer net metering to any new customer-generator at any subsequent time.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 52

Responding Witness: Robert M. Conroy

- Q-52. Please explain why the Companies to cap the cumulative generating capacity of net metering systems reaches one percent (1%) of a supplier's single hour peak load during a calendar year.
- A-52. The rates, terms, and conditions of Rider SQF (Small Capacity Cogeneration Qualifying Facilities) are appropriate for compensating distributed generation customers with generating facility capacities of 100 kW or less, and they are consistent with providing all customers service at the lowest reasonable cost. Therefore, the Company currently anticipates ceasing to offer service under Rider NMS-2 to any new customer-generator after (1) the cumulative generating capacity of NMS-1 and NMS-2 customer-generators reaches a combined 1% of the Company's single-hour peak load during a calendar year and (2) the Company receives Commission approval to cease offering such service.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 53

Responding Witness: John Bevington / Michael E. Hornung / Shannon L. Montgomery

Q-53. Refer to Rider SSP.

- a. Please confirm that the Company proposed to make Rate RTS and Rate EHLF eligible for the Solar Share Program Rider.
- b. Please state whether the Company has had any discussions with customers or potential Rate RTS and Rate EHLF customers on whether the customers would elect to participate in the Solar Share Program Rider. If yes, please describe and submit any written communications regarding this issue.

A-53.

- a. Confirmed.
- b. The Companies conduct annual reviews with existing RTS customers, during which the Solar Share Program may be discussed in connection to accounts the customer holds with the Companies. However, no RTS or potential EHLF customers have expressed interest in opting into Rider SSP to date. However, detailed information about the Solar Share Program is publicly available on the Companies' website (e.g., https://lge-ku.com/business-renewable-options). The Companies are open to engaging with any eligible customers interested in participating in the program.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 54

Responding Witness: Elizabeth J. McFarland

- Q-54. Refer to the testimony of John Crocket at pages 6 and 7, regarding LG&E and KU's transmission SAIDI and SAIFI metrics.
 - a. For both metrics, the companies experienced significant improvement in reliability in their transmission system from 2017 forward. Please describe what measures were implemented to achieve these reductions in transmission outages in terms of duration and frequency.
 - b. Please provide the annual capital and O&M transmission costs since 2016 for each company.
 - c. Please provide the same information as contained in these two charts broken out for LG&E and KU separately.
 - d. Please provide the companies' SAIDI and SAIFI, both on a combined system basis and on a separate company basis, as compared to the industry's average, top quartile and top decile.

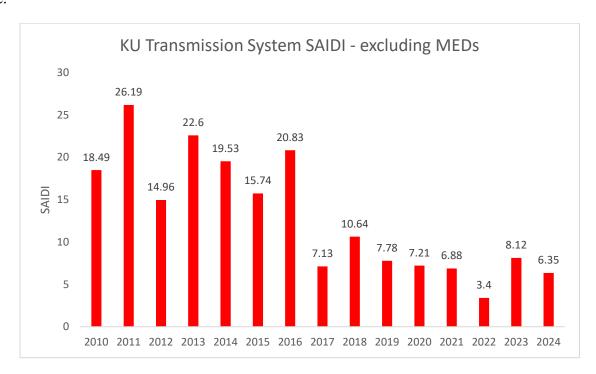
A-54.

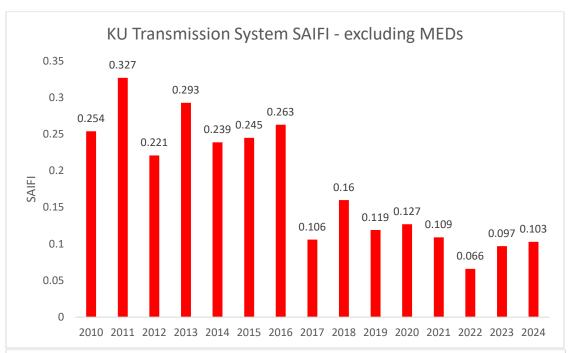
a. As stated in McFarland's testimony on page 8, the Companies have invested \$118.3 million in reliability improvements and \$601.3 million in resiliency improvements to the transmission system, representing both O&M and capital investments as part of the Transmission System Improvement Plan initiated in 2017. These capital investments included replacing outdated substation and line equipment with newer, more resilient components, that produce long-lasting hardening benefits to the transmission system. The assets in that replacement plan included wood poles, underground lines, circuit breakers, insulators, and line arresters at substations. While not all were part of TSIP, the Companies have replaced approximately 10,000 poles on the transmission system with steel poles since 2017. These steel poles are structurally stronger than wood poles, capable of withstanding winds up to 100 miles per hour and ice accumulation up to 1 inch, making them more resilient to hazards and extreme weather events. Steel poles have a longer expected life than wood poles, and do not deteriorate like wood

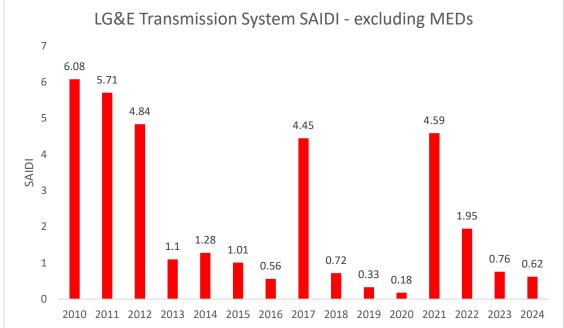
poles. These upgrades have significantly reduced the frequency and duration of outages. The Companies have also invested in motor-operated switches with automatic remote sectionalizing which minimize customer exposure to outages and reduce their duration. Additionally, a major component of the O&M investment was the adoption of a cycle-based vegetation management plan to ensure proper clearance around transmission lines thus significantly reducing tree-related outages.

b. See attachment being provided in a separate file.

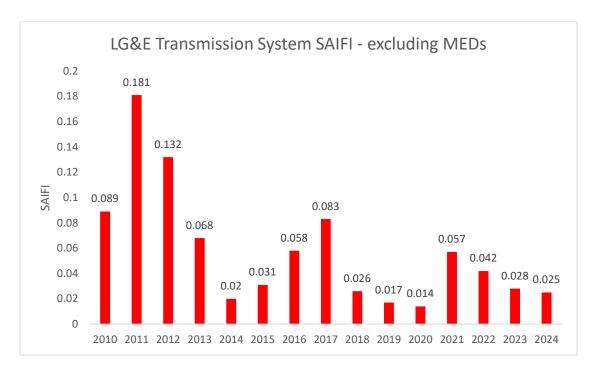
c.







Response to Question No. 54
Page 4 of 4
McFarland



d. See attachment being provided in a separate file. The information requested is confidential and is being provided pursuant to petition for confidential protection.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 55

Responding Witness: Tom C. Rieth

- Q-55. Refer to the testimony of John Crocket at page 8 regarding LG&E's gas distribution operations.
 - a. Please state whether "Recordable Injury Incident Rate" is an industry standard metric. If this is an industry standard metric, provide the average rate for the most recent year data.
 - b. Please provide the Recordable Injury Incident Rate (RIIR) for LG&E's gas operations for the years 2016 through 2023.
 - c. Please confirm the Recordable Injury Incident Rate target of 1.58 is specifically for LG&E's gas operations.
 - d. Please explain how LG&E's target Recordable Injury Incident Rate of 1.58 was derived and state whether this target rate is constant each year. If the target rate changes yearly, state the factor(s) driving any such change.

A-55.

- a. Yes, it is an industry standard metric. The most recent Bureau of Labor Statistics utility average was 1.8 (2023).
- b. The RIIR for LG&E's gas operations for years 2016 through 2023 are included in the following table:

Year	RIIR
2016	2.62
2017	2.55
2018	2.09
2019	3.00
2020	0.97
2021	3.08
2022	2.05
2023	1.37

- c. The LG&E target was inadvertently written as 1.58 for 2024 and should have been 0.74. This is a corporate target and not gas specific.
- d. The rate is set yearly based on the Edison Electric Institute (EEI) yearly data report.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 56

Responding Witness: Lonnie E. Bellar

- Q-56. Refer to the testimony of Lonnie Bellar at page 4, regarding RIIR.
 - a. Please confirm that the 2024 RIIR of 1.57 reflects the combined operations of LG&E electric, LG&E gas, and KU electric.
 - b. Please provide the RIIR for LG&E's electric operations for the years 2016 through 2024.
 - c. Please provide the RIIR target rate for LG&E electric for 2024.

A-56.

a. The 2024 RIIR of 1.57 reflects the combined operations of LG&E electric, LG&E gas, LG&E generation, KU electric and KU generation.

	RIIR
2016	2.06
2017	2.07
2018	2.38
2019	1.97
2020	2.29
2021	1.79
2022	1.94
2023	1.69
2024	2.88

b.

c. The RIIR target for 2024 was established for LG&E and KU as a total company was 0.74 (individual lines of business did not have separate targets).

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 57

Responding Witness: Lonnie E. Bellar

- Q-57. Refer to the testimony of Lonnie Bellar at pages 6 through 8, regarding the current status of the four projects approved in Case No. 20222-00402. Please provide an update of the EPC selection for the Mercer County and Marion County Solar projects.
- A-57. The EPC Agreement for the Mercer County Solar project was executed on June 13, 2025, with Depcom Power. An EPC contractor has not been selected for the Marion County Solar project.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 58

Responding Witness: Elizabeth J. McFarland

- Q-58. Refer to the testimony of Elizabeth McFarland at page 8, regarding replacement of wooden transmission poles with steel poles.
 - a. Please provide the percentage of transmission poles that are steel and those that are wooden.
 - b. Please state whether LG&E plans on converting additional or all its wooden transmission poles to steel. If so, provide details of that replacement plan.

A-58.

a. Please see the table below. Non-wood poles are comprised of steel poles, steel towers and concrete poles.

	LG&E
Wood Poles	42%
Non-Wood Poles	58%
Wood Poles	3,291
Non-Wood Poles	4 562
Non-wood Poles	4,563
Total	7.854
iUlai	7,004

b. LG&E's current standard is to utilize steel structures for all new installations. LG&E will systematically replace all wood with steel poles via prioritized proactive replacement projects. These projects consist of complete line re-builds, reconductoring and defective pole replacement projects. Also, when emergency replacements are required, wood poles are replaced with steel.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 59

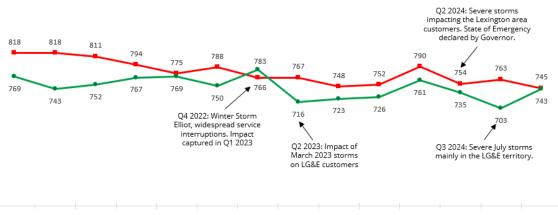
Responding Witness: Elizabeth J. McFarland

- Q-59. Refer to the testimony of Elizabeth McFarland at page 8, regarding the need to continue improving the transmission system in order to "keep pace with customer expectations for safe and reliable power." Please explain what is meant by the reference to "customer expectations for safe and reliable power" and whether KU and LG&E have conducted any studies or performed any surveys to effectively characterize and measure its customers' expectations for safe and reliable electric service.
- A-59. "Customer expectations for safe and reliable power" refers to the increasing demand for consistent and high-quality electricity service. This expectation has grown due to several factors, including the widespread use of technology, the anticipated growth of artificial intelligence powered by data centers, the expansion of electric vehicle use, and the increase in remote work, particularly following the COVID-19 pandemic. Reliable power is essential not only for personal comfort but also for maintaining livelihoods.

The Companies utilize quarterly JD Power surveys to measure and gain insight into customer expectations. These surveys consistently indicate that reliability and power quality are crucial to customer satisfaction. Reliable power delivery minimizes disruptions, protects customer equipment, supports critical operations, and builds trust between customers and utilities. The JD Power Quality and Reliability customer satisfaction index from the Electric Residential survey, as shown in the figure below, highlights a strong correlation between customer dissatisfaction and extreme events, underscoring the importance of providing reliable and high-quality power service. Higher scores on this index reflect greater customer satisfaction.

Power Quality & Reliability Index

PQ&R Index - KU →PQ&R Index - LG&E



 $\texttt{Q3 2021} \ \ \texttt{Q4 2021} \ \ \texttt{Q1 2022} \ \ \texttt{Q2 2022} \ \ \texttt{Q3 2022} \ \ \texttt{Q4 2022} \ \ \texttt{Q1 2023} \ \ \texttt{Q2 2023} \ \ \texttt{Q3 2023} \ \ \texttt{Q4 2023} \ \ \texttt{Q1 2024} \ \ \texttt{Q2 2024} \ \ \texttt{Q2 2024} \ \ \texttt{Q3 2024} \ \ \texttt{Q4 2025}$

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 60

Responding Witness: Charles R. Schram

- Q-60. Refer to page 20 lines 12-14 of the testimony of Charles Schram. Why are volumes for transportation customers forecast to increase more than customers on sales rates?
- A-60. See the Schram testimony at page 21, lines 1-7. The 762,447 Mcf from BOSK Phase 1 as well as the 628,648 Mcf from other major account expansions account for 97.9% of the total 1,419,523 Mcf increase in volume for transportation customers on the FT rate. These increases for specific major accounts greatly outweigh any increases for customers on sales rates.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 61

Responding Witness: Shannon L. Montgomery / Charles R. Schram

- Q-61. Refer to page 21 lines 1-7 of the testimony of Charles Schram. Has BOSK been operating at full usage from January 2025 to the present?
- A-61. No.

Response to Louisville/Jefferson County Metro Government's First Request for Information Dated July 3, 2025

Case No. 2025-00114

Question No. 62

Responding Witness: Tom C. Rieth

- Q-62. Refer to the testimony of Tom C. Rieth.
 - a. Refer to page 2, lines 18-20, how many "emergency" calls were received during the test year and the prior 3 years, and what was the average response time for the prior 3 years? How does LG&E define "emergency"? Is there any national best practice for average length of time for emergency calls?
 - b. Refer to page 3, lines 6-8. Please attach a copy of the multi-year plan.
 - c. Refer to page 4, lines 10-14. Please estimate the number of incidents and average length of time of outage resulting from loss of gas supply, which will no longer occur once the Bullitt County pipeline is in operation.
 - d. Refer to page 5, lines 11-16. Please provide a summary table of the alternatives reviewed and the estimated cost of each.
 - e. Refer to the table on page 6 of your testimony. Please provide the number of public works projects for each of the years described.
 - f. Refer to page 7 of your testimony. Please define "hard spot." Was the existing technology unable to determine whether "hard spots" existed? If that is true, what is the new technology and cost of same required to comply with the PHMSA November 18, 2024 bulletin? Please attach a copy of the bulletin.
 - g. Please provide a table showing the total GLT costs broken down by category for the test year and the prior 3 years, as well as the anticipated costs for the prior 3 years, to include the new categories required by LDAR.
 - h. Lease refer to pages beginning at page 14 and specifically at p. 17. What is the estimated increased cost to LG&E of the 40% completion and also at 100% completion?

i. Please see the testimony at page 17, lines 17-19. Please provide the proposed language change. How many customers will be affected by this change and what is the estimated increase in cost?

A-62.

a. The test year has not yet occurred, so information is not available. However, the data from calendar years 2022-2024, and 2025 through 6/30 is shown below.

Year	Emergency Orders	Average Response		
		Time (minutes)		
2022	8,622	31.9		
2023	8,681	31.0		
2024	8,575	31.2		
2025 (through 6/30)	4,368	30.7		

LG&E treats the investigations of gas odors, damaged facilities, high pressure, fires, explosions, and carbon monoxide as emergencies.

There is no national standard defined for emergencies or for response time.

b. Initial assessment schedule:

Year 1	Muldraugh Compressor Station – Part 1
Year 2	Muldraugh Compressor Station – Part 2
	Magnolia Compressor Station – Part 1
	City Gate Station 1
Year 3	Muldraugh Compressor Station – Part 3
	Magnolia Compressor Station – Part 2
	City Gate Station 2
	City Gate Station 3
	City Gate Station 4
Year 4	Muldraugh Compressor Station – Part 4
	Magnolia Compressor Station – Part 3
	City Gate Station 5
	City Gate Station 6
	City Gate Station 7
Year 5	Magnolia Compressor Station – Part 4
	City Gate Station 8
	City Gate Station 9
	City Gate Station 10
Year 6	City Gate Station 11
	City Gate Station 12
	High Pressure Regulator Facility 1

	High Pressure Regulator Facility 2
	High Pressure Regulator Facility 3
	High Pressure Regulator Facility 4
	High Pressure Regulator Facility 5
	High Pressure Regulator Facility 6
	High Pressure Regulator Facility 7
Year 7	High Pressure Regulator Facility 8
	High Pressure Regulator Facility 9
	High Pressure Regulator Facility 10
	High Pressure Regulator Facility 11
	High Pressure Regulator Facility 12
	High Pressure Regulator Facility 13
Year 8	High Pressure Regulator Facility 14
	High Pressure Regulator Facility 15
	High Pressure Regulator Facility 16
	High Pressure Regulator Facility 17
	High Pressure Regulator Facility 18
	High Pressure Regulator Facility 19

- c. The existing high pressure pipeline is the primary gas supply for a large portion of Bullitt County. The Bullitt County Pipeline under construction will provide a second supply to this area greatly increasing the reliability if the existing pipeline is damaged or loses flow for other reasons. The existing high pressure pipeline has the largest number of customers served from single source on the LG&E gas system and this will be mitigated after the Bullitt County Pipeline is complete.
- d. See the response to PSC 1-89.
- e. The table below represents the number of public works projects completed in each of the years below. It is common for projects to overlap calendar years, in these cases, the project is counted in the year of completion. 2025 is a projection of jobs that will be complete in the calendar year. Four (4) additional projects are forecasted to start in 2025, but complete in 2026.

Year	Projects
2020	10
2021	4
2022	13
2023	13
2024	12
2025	16

f. See attachment being provided in a separate file.

PHMSA issued an advisory bulletin to notify pipeline owners and operators of the importance of evaluating their pipeline facilities for the existence and potential threat of hard spots in the pipe body. That susceptibility comes from the plate and pipe manufacturing and is broader than previously understood; recent data and incident investigations indicate that hard spots could affect multiple pipelines manufactured prior to 1970. Hard spots, if not identified and mitigated, pose a threat to the integrity of the pipeline from interacting threats such as coating degradation, soil chemistry, and/or increased hydrogen exposure, which can result in hydrogen-induced cracking. Pipeline owners and operators should consider expanding their hard spot threat evaluation to all pipe manufactured prior to 1970, regardless of manufacturer; collecting and analyzing data associated with hard spot magnetic flux leakage in-line inspection ("ILI") tools; and following industry best practices when conducting in-line inspection data analysis.

In PHMSA regulation 49 CFR Part 192.3 Definitions, Hard spot means an area on steel pipe material with a minimum dimension greater than two inches (50.8 mm) in any direction and hardness greater than or equal to Rockwell 35 HRC (Brinell 327 HB or Vickers 345 HV10).

Existing ILI tools were unable to determine the existence of hard spots. The ILI technology to identify and measure hard spots is based on standard magnetic flux technology. Hard spot detection tools are comprised of two magnetic flux leakage units, set at different magnetization levels, run together in one tool. So, although the magnetic flux technology existed the inclusion of two units in one tool is a new application of existing technology. The costs associated with conducting the hard spot assessment for LG&E pipelines is approximately \$8 million.

g. The test year has not yet occurred and the requested information is not available. However, the data from calendar years 2022-2024, and 2025 through 6/30 is shown below

Summary (\$000s)		Actual				Anticipated Cost for Past 3 years		
	Calendar Year	2022	2023	2024	2025 through June	2022	2023	2024
		Current GLT Capital						
GLT Capital	New Customer Services ¹	6,083	5,831	5,702	4,465	7,967	7,029	12,101
LTC	Leak Repair (services)	9,237	15,603	14,958	2,728	4,193	3,975	9,584
Ð	Total Currently Approved Capital	15,320	21,434	20,660	7,193	12,160	11,004	21,685
GLT CO S		Current GLT Operating Costs						

Leak Repair (Customer Services)	298	334	1,102	715	327	409	380
Customer Service & Meter Work ¹	1,248	2,204	2,417	1,001	415	421	430
Unlocatable Customer Services ¹	101	78	38	4	144	148	36
Total Current Approved Operating Costs	1,647	2,616	3,557	1,721	886	978	846
GRAND TOTAL (Capital and Operating Costs):	16,967	24,050	24,217	8,914	13,046	11,982	22,531

- 1 Customer service work that is not related to leak activities
- 2 New work associated with LDAR rule would not start until calendar year 2026 or after depending on regulation publishing.
 - h. A Pipeline Safety Management System is an ongoing effort to enhance operator safety. As such, costs are expressed annually. Annual program cost at 40% maturity: \$1,079,238. Projected annual cost at 100% maturity is \$1,700,000.
 - i. LG&E is proposing to modify the "Character of Service" section of Firm Transportation Service (Transportation Only), "Rate FT" by adding the following provision:
 - "In order to effectuate Company's obligation, Company may install such remote flow equipment as it determines to be necessary in order to control and limit the amount of gas taken by Customer from Company, such facilities to be installed by Company at Customer's expense."
 - The "Company's obligation" referenced in the proposed language is the obligation to redeliver customer owned gas from the Receipt Point (Company's city-gate) to the Delivery Point (customer's facility). The proposal to use remote flow equipment to physically control and limit the amount of gas the customer can take at its facility supports the enforcement of several provisions in Rate FT that support system reliability as follows:
 - Company has no obligation to deliver a volume of gas to Customer, either daily or monthly, which differs from the volume delivered to Company at the Receipt Point
 - Company has no obligation to deliver a daily volume of gas to a customer that is above the customer's Maximum Daily Quantity (MDQ).
 - Company has no obligation to deliver an hourly volume of gas that exceeds the customers MDQ divided by 24 hours.

Flow control equipment will enable LG&E to remotely adjust the gas flow rate to meet demand fluctuations and ensure efficient transportation on its gas system. Importantly, LG&E could quickly reduce the flow of gas to a Rate FT customer or pool of Rate FT customers who are under-delivering gas to LG&E's system when such reduction would preserve system reliability.

Currently there are 77 Rate FT customers; all of them may be impacted by this change. The cost of remote flow control equipment will vary by customer depending on factors such as MDQ, size of piping, system operating pressure, delivery pressure, and space available at the meter site.

Also see the response to PSC 2-84.