COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF)
LOUISVILLE GAS AND ELECTRIC)
COMPANY FOR AN ADJUSTMENT OF ITS)
ELECTRIC AND GAS RATES, A)
CERTIFICATE OF PUBLIC CONVENIENCE)
AND NECESSITY TO DEPLOY ADVANCED) CASE NO. 2020-00350
METERING INFRASTRUCTURE, APPROVAL)
OF CERTAIN REGULATORY AND)
ACCOUNTING TREATMENTS, AND)
ESTABLISHMENT OF A ONE-YEAR)
SURCREDIT)

RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY TO SECOND REQUEST FOR INFORMATION OF THE UNITED STATES DEPARTMENT OF DEFENSE AND ALL OTHER FEDERAL EXECUTIVE AGENCIES DATED FEBRUARY 5, 2021

FILED: FEBRUARY 19, 2021

COMMONWEALTH OF KENTUCKY)) COUNTY OF JEFFERSON)

The undersigned, **Daniel K. Arbough**, being duly sworn, deposes and says that he is Treasurer for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and 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.

Daniel K. Arbough

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

and State, this My day of _ fehilla 2021.

Notary Public

Notary Public ID No.

My Commission Expires:

COMMONWEALTH OF KENTUCKY)) COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Chief Operating Officer for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and 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.

Bella

Lonnie E. Bellar

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

and State, this 16th day of <u>Jebruary</u> 2021.

lySchoole

Notary Public

Notary Public ID No.

My Commission Expires:

COMMONWEALTH OF KENTUCKY)) COUNTY OF JEFFERSON)

The undersigned, **Kent W. Blake**, being duly sworn, deposes and says that he is Chief Financial Officer for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and 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.

It WB leh.

Kent W. Blake

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

and State, this Mulday of <u>femulary</u> 2021.

Notary Public

603967 Notary Public ID No.

My Commission Expires:

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, and 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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this Mar day of Albuan 2021.

603967 Notary Public ID No.

My Commission Expires:

COMMONWEALTH OF KENTUCKY))) **COUNTY OF JEFFERSON**

The undersigned, Christopher M. Garrett, being duly sworn, deposes and says that he is Controller for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and 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.

DocuSigned by: (livistoplur M. Garrett Christopher M. Garrett

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

and State, this 16th day of <u>february</u> 2021.

udy Schoole

Notary Public ID No. 603967

My Commission Expires:

STATE OF NORTH CAROLINA }) **COUNTY OF BUNCOMBE**)

The undersigned, **William Steven Seelye**, being duly sworn, deposes and states that he is a Principal of The Prime Group, LLC, and 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, kpowledge and belief.

William Steven Seelye

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

State, this 17th day of February

2021.

Kyle Mello NOTARY PUBLIC BUNCOMBE COUNTY, NC MY COMMISSION EXPIRES 7/29/2023

(SEAL)

Notary Public

Notary Public ID No. 201821300996

My Commission Expires: 1023

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 1

Responding Witness: William Steven Seelye

- Q-2-1. Referring to Schedule M-2.3-E, pages 2 through 26:
 - a. Please identify the retail system, and each rate class impact from the Environmental Cost Recovery ("ECR") mechanism rate under current rates and proposed rates.
 - b. Please provide on electric spreadsheet with all formula intact.
- A-2-1.
- a. LG&E serves only retail customers in Kentucky. The forecasted ECR revenues prior to the proposed project eliminations are reflected in the lines labeled "ECR Mechanism Revenue" and "ECR Base Revenue" for the rate classes subject to the ECR mechanism. The column labeled "Calculated Revenue at Current Rates" reflects the forecasted ECR revenues for the test year prior to the elimination of the proposed projects. The column labeled "Calculated Revenue After ECR Project Elim" reflects the forecasted ECR revenues for the test year after the elimination of the proposed projects. The ECR Base Revenue is net-neutral from a base rate revenue standpoint, but the ECR Mechanism Revenue is an increase in base rate revenues with a corresponding decrease in ECR Mechanism Revenue. The change in ECR Mechanism Revenue to base rate revenues is reflected in the line labeled "Adjustment to Reflect ECR Project Elimination". The net impact of the proposed ECR elimination on current rates is net-neutral as reflected in the line labeled "Total Revenues" for the columns noted.

There is no change in forecasted ECR Mechanism Revenue or ECR Base Revenue from the column labeled "Calculated Revenue After ECR Project Elim" to "Calculated Revenue at Proposed Rates". The amount for the "Adjustment to Reflect ECR Project Elimination", which was the increase in base rate revenues, was absorbed during the design of the proposed base rates in this proceeding. b. See the attachment to the response to PSC 1-56 named "2020_Att_LGE_PSC_1-56_ElecScheduleM_Forecasted.xlsx".

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 2

Responding Witness: William Steven Seelye

- Q-2-2. In electronic spreadsheet format with all formulas intact, please show the development of the intermediate and peak demand charges for the Time of Day Primary customer class. Please explain how the split of production costs and transmission costs between these two rating periods was determined
- A-2-2. The intermediate and peak demand charges were developed in the rates that were filed in Case No. 2009-00549. See Case No. 2009-00549, Direct Testimony of William Steven Seelye, at pages 13-20. In the settlement and stipulation agreement in that proceeding, the parties agreed to a demand charge consisting of peak, intermediate and base demand charges. Prior to that proceeding, the Company's large customer rates consisted of only a base demand charge and a peak demand charge. The intermediate demand charge was introduced to give customers greater flexibility in reducing their demands during peak periods. In subsequent rate filings, the Company has maintained essentially the same percentage relationship between the peak and intermediate demand charges, as were developed in Case No. 2009-00549. In the current proceeding, the peak and intermediate demand charges as the current charges.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 3

Responding Witness: N/A

Q-2-3. This request is intentionally blank.

A-2-3. N/A

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 4

Responding Witness: N/A

Q-2-4. This request is intentionally blank.

A-2-4. N/A

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 5

Responding Witness: N/A

Q-2-5. This request is intentionally blank.

A-2-5. N/A

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 6

Responding Witness: Daniel K. Arbough / Robert M. Conroy

- Q-2-6. Please state the Gas Line Tracker ("GLT") mechanism rate used to develop LG&E's natural revenue at current rates and proposed rates
- The financial forecast models the forecasted GLT mechanism revenues to assume A-2-6. real-time recovery of the calculated revenue requirement for the GLT mechanism during the test year. Therefore, the forecasted GLT revenues are not based on a mathematical calculation of a rate multiplied by volumes as is the case with base rate revenues.

The Company did calculate and propose revised GLT rates in this proceeding to account for the effect on the current Commission approved GLT rates of the proposed GLT project eliminations. The current approved GLT rates and the proposed GLT rates filed in this proceeding are shown below by rate class.

Current Approved Rates

Current Approved Kates	Distribution Projects (\$/delivery point)	Transmission Projects (\$/Ccf)
RGS, VFD	\$ 1.87	\$0.02378
CGS, SGSS	9.27	0.01920
IGS, AAGS, DGGS	111.02	0.01170
FT, LGDS	0.00	0.00098
<u>Proposed Rates</u>	Distribution Projects <u>(\$/delivery point)</u>	Transmission Projects (\$/Ccf)
RGS, VFD	\$ 1.01	\$0.00017
CGS, SGSS	5.02	0.00014
IGS, AAGS, DGGS	60.10	0.00008
FT, LGDS	0.00	0.00001

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 7

Responding Witness: Robert M. Conroy

- Q-2-7. Please state the GLT mechanism rate used to develop LG&E's proposed natural gas revenues.
- A-2-7. See the response to Question No. 2-6.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 8

Responding Witness: Eileen L. Saunders / William Steven Seelye / John K. Wolfe

- Q-2-8. Regarding LG&E's distribution service to Fort Knox from the Tip Top substation:
 - a. Does LG&E agree that this substation is fed from a 138 kV line owned by LG&E? Please provide a detailed explanation supporting the response.
 - b. Does LG&E agree that Fort Knox is served from the Tip Top substation from LG&E's 34.5 kV distribution lines that are located on the base? Please provide a detailed explanation supporting the response.
 - c. Does LG&E agree that the Tip Top substation also has primary voltage lines that provide service to local municipal loads off the base (i.e., non-DoD base customers)? Please provide a detailed explanation supporting the response.
 - d. Does LG&E agree that it leases the land from Fort Knox for the Tip Top substation and the distribution conductor corridor that serves the base? Please provide a detailed explanation supporting the response.
 - e. Does LG&E agree that its distribution costs are limited to a share of the Tip Top substation and the dedicated 34.5 kV lines that provide service to Fort Knox owned distribution substations? Please provide a detailed explanation supporting the response.
- A-2-8.
- a. Yes, Tip Top Substation has (2) 138KV lines: 3851 from Cloverport, 3856 from Knob Creek and feeds Pond Creek. See attached. The information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.
- b. Yes, Fort Knox is fed from (3) 34kv lines at Tip Top: 3313, 3314, 3316. See attached drawing for further detail.

- c. Yes, Line 3311 feeds LG&E customers in the Dixie Highway area. See attached drawing for further detail.
- d. No, LG&E does not agree that it leases land for the Tip Top substation and the distribution conductor corridor. LG&E possesses easements for the Tip Top substation and distribution conductor corridor to construct, operate, and maintain its facilities.
- e. The distribution costs include but are not limited to the maintenance and capital improvements for the Tip Top substation and the dedicated 34.5kV lines that provide service to Fort Knox owned distribution substations. In addition, there are costs associated with the systems that monitor the substation and lines.

The entire attachment is Confidential and provided separately under seal.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 9

Responding Witness: William Steven Seelye

- Q-2-9. LG&E separates service into functional components: production, transmission and distribution. Does LG&E agree that the transmission function acts as a delivery component which transports production from a generation source to the distribution point? Please explain your answer.
- A-2-9. Yes. The loads at the distribution points on the LG&E and KU's transmission system are an important factor in designing capacity on the transmission system. Ultimately, the loads at the distribution points determine the level of capacity needed to deliver power on the transmission system from the generation system to the load centers. However, with the emergence of distributed generation and distributed battery storage the delivery of power from a generation system.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 10

Responding Witness: Lonnie E. Bellar

- Q-2-10. Concerning the design of adequate capacity to operate transmission functional infrastructure, does LG&E design the capacity requirements for transmission assets based on single, coincident peak demand on the facility for that over multiple months. Please explain your answer and identify the number of months typically considered in designing the load serving capacity of transmission facilities.
- A-2-10. The annual transmission expansion planning process considers multiple coincident peak demand forecasts over the next ten-year planning horizon. The process doesn't identify the number of months, but rather, peak loads which could occur during the applicable peak season. Specifically, an expected load forecast and a high load forecast are analyzed for the winter and summer peak seasons in years 1, 2, 5, and 10 to ensure customer demand can be met.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 11

Responding Witness: Lonnie E. Bellar / William Steven Seelye

- Q-2-11. Concerning the production and transmission functionalization of electric service, does LG&E agree that to the extent one customer modifies their demands on the system which reduces demands on production and transmission facilities, would that free up production and transmission capacity that can be used to provide service to other customers. Please explain your answer.
- A-2-11. No, not without certain qualifications. Depending on the location of the customer's load, reductions in demand may not free up capacity on the transmission system. Furthermore, depending on the time period during which a customer reduces its demand, any such reduction may not provide additional benefits to the generation or transmission system. For example, if the customer reduces its demand during off-peak periods, or when either the transmission or generation system is not operating at full capacity, then any capacity that is freed up would not necessarily be used to provide service to other customers.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 12

Responding Witness: William Steven Seelye

- Q-2-12. Please provide LG&E's rationale for including ratchet billing demand components for its tariff rate with demand charges.
- A-2-12. The Company must install capacity to meet the maximum demands that customers impose on the system. The purpose of demand ratchets is to account for the maximum demands that a customer can impose on the system by measuring the demands during the most recent 12-month period (which serves as a measurement of the maximum demand for which facilities are installed to serve the customer). Contract demands are also often used in lieu of, or in addition to, demand ratchets to measure the maximum demand that a customer can place on the system, and for which the utility has installed sufficient capacity to meet that demand. The closer that the relationship is between the kVA (or daily MCF demand) capacity installed to serve the customer and the customer's kVA (or daily MCF demand) billing demand, the more accurate the rates will be in reflecting the cost of providing service to the customer.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 13

Responding Witness: Robert M. Conroy / William Steven Seelye

- Q-2-13. Please identify the voltage level distinctions for LG&E's system where the facility would be considered transmission voltage level, subtransmission voltage level, primary voltage level and secondary voltage level. Please explain whether or not these voltage distinctions are used in allocating transmission or distribution costs across customer classes.
- A-2-13. The voltage level distinctions are contained in Terms and Condition, Character of Service, Original Sheet No. 99 of the Company's tariff.

Electric service, under the rate schedules herein, will be 60 cycle, alternating current delivered from Company's various load centers and distribution lines at typical nominal voltages and phases, as available in a given location, as follows:

SECONDARY VOLTAGES

Residential Service -

Single phase 120/240 volts three-wire service or 120/208Y volts threewire service where network system is available.

- Non-Residential Service -
 - 1. Single phase 120/240 volts three-wire service or 120/208Y threewire service where network system is available.
 - 2. Three phase 240 volts three-wire, 480 volts three-wire service, 120/208Y volts fourwire service, or 277/480Y volts four-wire service.

PRIMARY VOLTAGES

According to location, 2400/4160Y volts, 7200/12,470Y volts, 13,800 volts, or 34,500 volts.

TRANSMISSION VOLTAGES

According to location, 69,000 volts, 138,000 volts, 161,000 volts, or 345,000 volts.

These voltage distinctions are used in LG&E's cost of service studies to allocate transmission and distribution fixed costs to the classes of service. See Exhibits WSS-30 and WSS-32 to the Direct Testimony of William Steven Seelye.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 14

Responding Witness: Robert M. Conroy / William Steven Seelye

- Q-2-14. Please outline LG&E's efforts to design its rates to encourage customers to make economic consumption decisions in support of the Company's and the state's conservation efforts.
- A-2-14. For decades the Company has endeavored to develop cost-based rates, which encourage customers to make optimal choices with respect to energy conservation. See also the response to MHC-KFTC-KSES 2-5.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 15

Responding Witness: Christopher M. Garrett

- Q-2-15. Please provide workpapers in Microsoft Excel, with all formulas intact, that support Filing Requirement Tab 13 Section 16(6)(f), the reconciliation of the rate base and capital used to determine the revenue requirement.
- A-2-15. See response to AG-KIUC 1-58(a) for detail of reconciliation of capitalization and rate base in Microsoft Excel.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 16

Responding Witness: Daniel K. Arbough

- Q-2-16. Please provide the amount of pension expense included in the Company's revenue requirement in this case and state whether returns on the pension trust were used to reduce the included amount of pension expense. If so, please provide workpapers supporting this calculation.
- A-2-16. LG&E's test year pension expense is \$7,762,827.

LG&E's external actuary calculates its pension cost in accordance with Accounting Standards Codification 715. Under that standard, one component of the calculation of pension cost is Expected Return On Assets (EROA). LG&E's EROA is determined based on a market-related value of plan assets, which is calculated by rolling forward the prior year market-related value with contributions, disbursements, and long-term expected return on investments. One-fifth of the difference between the actual value and the expected value is added (or subtracted if negative) to the expected value to determine the new market-related value.

See actuary reports provided in response to AG-KIUC 1-50 which show that EROA is a component of LG&E's pension cost.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 17

Responding Witness: Daniel K. Arbough

- Q-2-17. Please provide the amount of pension expense that was approved in the Company's last base rate case and is currently being recovered in rates. If this amount is not available, please provide the most recent Commission approved level of pension expense and the Order where it was approved.
- A-2-17. The amount of pension expense that was included in the test year in LG&E Case No. 2018-00295 was \$3,679,425.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 18

Responding Witness: Daniel K. Arbough / Christopher M. Garrett

- Q-2-18. Referring to the \$25,629,156 base period prepaid pension asset included on Schedule B-5.2, page 2, please answer the following questions:
 - a. Cite all Commission orders that allow for the inclusion of a prepaid pension asset in rate base.
 - b. Provide workpapers in Microsoft Excel, with all formulas intact, supporting the development of the prepaid pension asset.
 - c. If not already provided in response to part b., please provide workpapers in Microsoft Excel, with all formulas intact, showing the development of the prepaid pension asset, annual pension expense, and pension trust funding, on an annual basis since inception and over the period where the prepaid asset balance was accumulated up through the end of the base period.
 - d. If not already provided in response to part b., please separately identify annual cash contributions by the Company, excess returns earned on the prepaid pension asset, and other factors (explain) that resulted in annual changes to the prepaid pension asset since inception and through the end of the base period.
 - e. Please identify the amount of discretionary contributions the Company has made to the prepaid pension asset since inception and through the end of the base period.
 - f. Please identify the ERISA minimum pension contribution since inception and through the end of the base period.
 - g. Please provide the amount of the prepaid pension asset at the end of the base period if the Company only made the ERISA minimum contribution

- A-2-18.
 - a. The Companies have included the prepaid pension asset in rate base as part of the balance sheet analyses of cash working capital consistent with the treatment utilized in the previous base rate cases, Case Nos. 2018-00294 and 2018-00295. See the response to AG-KIUC 2-11 for an analysis of the inclusion of the prepaid pension asset in rate base.

In Kentucky-American Water's ("KAW") 1997 rate case, the Attorney General recommended that KAW's rate base be reduced to reflect its accrued pension liability. KAW agreed with the AG's adjustment "providing the Commission also finds that if the accrued balance reverses in the future and a pension asset is created, then the asset should be included as a base rate addition."¹ The Commission agreed with KAW "because it would be unfair to its stockholders to recognize the accrued pension balance only when it results in a rate base reduction."²

LG&E further notes that it has used capitalization, not rate base, as its valuation method for the past 40 years. LG&E believes that capitalization remains the most objective measure of valuation and sees no reason to transition away from capitalization.

b. The \$25,629,156 base period prepaid pension asset included on Schedule B-5.2, page 2, is the thirteen-month average of the actual and forecasted balance of the FERC 128 account which was allocated to electric operations. See attachment #1, provided in Excel format, which shows the development of the prepaid pension asset from 2019 when LG&E's allocation of the pension plan was in a liability position to the forecasted prepaid pension balances as of February 2021. Attachment #2 provides supporting information for attachment #1.

The combination of the service cost, interest cost, and estimated return on assets components of pension cost for 2019 along with the impact of the actuarial revaluation of the plan resulted in LG&E's allocation of the pension plan changing from a liability balance to a prepaid balance.

- c. The development of the prepaid asset and pension trust funding are provided in part b. See attachment #1, provided in Excel format, for annual pension expense for 2019-2021.
- d. Cash contributions to the pension plan are provided in part b. The returns on the pension assets are included in the calculation of the market related value of the assets, which is calculated by the Company's actuaries. The Company does

¹ Application of Kentucky-American Water Company to Increase Its Rates, Case No. 97-034, Order at 29-30 (Ky. PSC Sept. 30, 1997).

not have an actuarial calculation isolating the excess returns on the prepaid pension assets. There are no other factors which resulted in changes to the prepaid pension assets other than those noted in the development of the pension assets provided in part b.

e. LG&E made cash contributions to its pension plans in the following amounts in 2019 and 2020.

LGE	2019	2020
Cash Contributions	650,363	8,000,000

- f. Financial reporting under U.S. GAAP is completed at the company level, so financial reporting information is readily available for LG&E. However, minimum required contributions for LG&E and KU Energy's defined benefit retirement plan (and prior to January 1, 2020, LG&E's defined benefit retirement plan) are determined only at the plan level based on ERISA minimum funding regulations. As such, minimum required contributions are not available explicitly by company.
- g. The Company is not able to provide this calculation as explained in part f.

The attachment is being provided in a separate file in Excel format.

LG&E and KU Energy LLC Retirement Programs Financial Statements Disclosure Information as of December 31, 2018 - Qualified Pension Plan

	Regulatory	Regulatory	Financial	Regulatory	Financial	Consolidated	Regulatory
				Non-Union Retiremen	nt Plan		Non-Union
	LG&E Union	LG&E	ServCo	<u> </u>			ServCo
Amounts recognized in the statement of financial position consist of: Noncurrent asset Current liability	\$ - -	\$ <u>-</u>	\$ <u>-</u>	\$ -			\$ <u>-</u>
Noncurrent liability	p.5 (3,917,317)	p.5 (6,701,565)	(186,069,038)	(1,498,579)			(186,069,038)
Net amount recognized at end of year	A <u>\$ (3,917,317</u>)	A <u>\$ (6,701,565</u>)	<u>\$ (186,069,038)</u>	<u>\$ (1,498,579)</u>			<u>\$ (186,069,038)</u>
Amounts recognized in accumulated other comprehensive income consist of:	sum of A=10	,618,882 <mark>excel tat</mark>	р-b				
Transition obligation (asset)	\$ -	\$ -	\$ -	\$ -			\$ -
Prior service cost (credit)	21,684,269	2,241,526	8,634,039	2,220,571			8,634,043
Net actuarial (gain) loss	106,956,740	88,807,492	98,666,328	133,710,461			142,355,895
Accumulated other comprehensive income	<u>\$ 128,641,009</u>	<u>\$91,049,018</u>	<u>\$ 107,300,367</u>	<u>\$ 135,931,032</u>			<u>\$ 150,989,938</u>
Expected Benefit Payments							
2019	\$ 25,549,616	\$ 16,744,914	\$ 34,434,511	\$ 29,664,365			\$ 34,434,511
2020 2021	24,784,130	17,523,952 17,294,241	34,582,817 36,809,716	30,044,985 29,860,050			34,582,817 36,809,716
2021	23,630,622 22,879,716	17,294,241	37,181,407	29,860,050			37,181,407
	22,010,110		51,101,401	20,110,002			51,101,401

Case No. 2020-00350 Attachment 2 to Response to DOD-FEA-2 Question No. 18 Page 1 of 6 Arbough and Garrett



	ACTION REPORT THE PERIOD 01 JANUARY 2019 ⁻	THROUGH 31 JANUARY 2019	2019-01-31 CYCLE 2	09:33:25 RUN DATE: 19-FEB-19 PAGE: 1 M2572I
EFFECTIVE/CONTRACTUAL/ TRAN SETTLEMENT CODE SECDARTEY DESCRIPTION (LOCAL CURR/SETTLE CURR)	SHARES PAR VALUE	TRADE DATE BASE AMOUNT	INVESTMENT BASE COST	REALIZED GAIN/LOSS IN <u>BASE CURRENCY</u>
RECEIPTS AND DISBURSEMENT TRANSACTIONS				
EMPLOYER CONTRIBUTIONS				
U.S. DOLLAR				
CD 11-JAN-19 PPL COMPANY CONTRIBUTION		650,363.00 <mark>excel t</mark>	ab-b 0.00	
MASTER TRUST INVESTMENT GAIN/LOSS				
MASTER TRUST INVESTMENT GAIN/LOSS				
U.S. DOLLAR				
SW 31-JAN-19 PPL MASTER TRUST UNIT 31-JAN-19 GENERAL EARNINGS FOR PERIOD ENDED 01/31/19	16.250-	0.00	16.25-	
SUB TOTAL - MASTER TRUST INVESTMENT GAIN/LOSS		0.00	16.25-	0.00 L 0.00 S
MASTER TRUST GENERAL INCOME EARNED				
SD 31-JAN-19 PPL MASTER TRUST UNIT 31-JAN-19 GENERAL INCOME FOR PERIOD ENDED 01/31/19	2,502.840	0.00	2,502.84	
MASTER TRUST CHANGE IN UNREALIZED APPRECIATION	N			
SD 31-JAN-19 PPL MASTER TRUST UNIT 31-JAN-19 UNREALIZED GAIN/LOSS FOR PERIOD ENDED 01/31/19	12,021,251.180	0.00	12,021,251.18	

Case No. 2020-00350 Attachment 2 to Response to DOD-FEA-2 Question No. 18 Page 2 of 6 Arbough and Garrett

Received from Willis Towers Watson on 5/2/2019

LG&E and KU Energy LLC ("LKE")

2019 Net Periodic Pension Cost Reflecting 15-year (Gain)/Loss Amortization Method Qualified Pension Plans

	Reg-15	Reg-15	Reg-15	Reg-15	Fin-15
		Non-Union Retirement Plan			
	LG&E Union	LG&E	KU	ServCo (Regulatory)	ServCo (Financial)
Funded Status ABO	286,145,101	214,494,498	373,588,223	497,975,878	497,975,878
PBO Fair value of assets Funded status	286,145,101 281,373,893 p.5 (4,771,208)	236,575,039 226,066,580	400,900,245 400,851,981 (48,264)	561,878,806 <u>373,760,462</u> (188,118,344)	561,878,806 373,760,462 (188,118,344)
Amounts recognized in accumulated other comprehensive income consist of: Net actuarial loss/(gain)	p.5 (4,771,208) 119,017,192	p.5 ^(10,508,459)	(48,204)	(100,110,344)	104,281,844
Prior service cost/(credit) Transition obligation/(asset)	21,684,269	2,241,526	2,220,571	8,634,043	8,634,039
Total Market related value of assets	140,701,461 310,403,838	105,953,390 251,679,405	146,501,499 444,363,019	166,089,108 411,227,667	112,915,883 411,227,667
2019 Net Periodic Pension Cost		excel tab-b	,,	,,	,,
Service cost Interest cost Expected return on assets Amortization of: Transition obligation (asset)	1,064,807 11,865,392 (21,671,596) -	1,941,510 9,910,323 (17,612,272) -	6,397,451 16,786,008 (31,127,731) -	11,513,374 23,668,061 (29,878,707) -	11,513,374 23,668,061 (29,878,707) -
Prior service cost (credit) Actuarial (gain) loss Net periodic pension cost	5,217,508 5,108,897 1,585,008	409,879 <u>4,549,915</u> (800,645)	565,441 5,176,141 (2,202,690)	1,678,075 5,765,951 12,746,754	1,678,071 1,357,131 8,337,930
Key assumptions: Discount rate Expected return on plan assets Rate of compensation increase	4.33% 7.25% N/A	4.35% 7.25% 3.50%	4.35% 7.25% 3.50%	4.35% 7.25% 3.50%	4.35% 7.25% 3.50%

The results contained in this document are based on the data provided by LKE's outside administrator as of January 1, 2019. All other assumptions, methods, and plan provisions are the same as those used for the year-end 2018 financial statement disclosures provided on January 18, 2019. The descriptions of the assumptions, methods, plan provisions, and limitations as set forth in the year-end 2018 financial statement disclosure letter should be considered part of these results.

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LG&E and KU Energy LLC ("LKE")

2019 Net Periodic Pension Cost Reflecting 15-year (Gain)/Loss Amortization Method - June 30, 2019 Remeasurement (Revised) LG&E Union

	2019 Valuation Results	Rollforward to 06/30/2019	Remeasure at 3.57%	Lump sums paid through July 12, 2019	Post-Lump Sums*	Final 2019 Expense**	
Measurement Date	1/1/2019	6/30/2019	6/30/2019	6/30/2019	6/30/2019		
Funded Status							
PBO	286,145,101	284,133,927	311,641,816	(15,498,968)	296,142,848		
Fair value of assets	281,373,893	284,383,781	317,918,578	(15,498,968)	302,419,610		
Funded status	(4,771,208)	249,854	6,276,762		6,276,762		
Amounts recognized in accumulated other comprehensive income consist of:							
Net actuarial loss/(gain)	119,017,192	116,462,742	110,435,835	-	110,435,835		
Prior service cost/(credit)	21,684,269	19,075,515	19,075,515	-	19,075,515		
Transition obligation/(asset)		-	-		-		
Total	140,701,461	135,538,257	129,511,350	-	129,511,350		
Market related value of assets	310,403,838	297,787,732	298,714,107		298,714,107		
	12 month expense				12 month expense	1/1/2019-12/31/2019	
2019 Net Periodic Pension Cost							
Service cost	1,064,807				1,243,994	1,154,401	excel tab-b
Interest cost	11,865,392				10,150,504	11,007,948	
Expected return on assets	(21,671,596)				(20,800,185)	(21,235,890)	
Amortization of:							
Transition obligation (asset)	-				-	-	
Prior service cost (credit)	5,217,508				5,217,508	5,217,508	
Actuarial (gain) loss	5,108,897				6,967,398	6,038,148	_
Net periodic pension cost	1,585,008				2,779,219	2,182,115	
Key assumptions:							
Discount rate	4.33%	4.33%	3.57%	3.57%	3.57%	4.33%/3.57%	
Expected return on plan assets	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	

Except as noted otherwise, the description of the data, assumptions, methods, plan provisions, and limitations as set forth in the accounting valuation results cover letter delivered on May 6, 2019 should be considered part of these results.

* Fair value of assets and market related value of assets have been reduced by lump sums paid between July 1, 2019 and July 12, 2019

** Final net periodic cost for the period January 1, 2019-December 31, 2019 was set equal to 6/12 of the 12-month expense measured as of January 1, 2019 and 6/12 of the 12-month expense measured as of June 30, 2019

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Qualified

		LG&E Union		LG&E
Funded Status 12/31/2018	p. 1	(3,917,317)	p. 1	(6,701,565)
Funded Status 6/30/2019	p.3	(4,771,208)	p.3	(10,508,459)
		853,891		3,806,894
LGE	Union	(853 <i>,</i> 891)		
LGE Non-	Union	(3,806,894)		
		(4,660,785)		
Preliminary Trial Ba	lance	16,010,776	p.6	
		11,349,991	excel tab-b	

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Preliminary Trial Balance before Final Actuary Report

	Company	Account	Description	Period Net	Ending Balance
0100	228304	PENSION PAYA	3LE	(1,381,470.00)	(16,010,776.32) p.5

EiS eXpress Reporting				
Report Name	LKE Account Balances for Pension			
Report Parameters				
Currency Code	USD'			
Period Name	DEC-2019'			
Actual Flag	A'			
-				
Report Summary				
Responsibility Name	MULT_Reporting(Access Set => LGE ENERGY LLC)			
Module Name	General Ledger			
Requested By	E009093			
Request Id	51261070			
Process Id	571579			
Request Date & Time	17-JAN-2020			
Actual Start Date	17-JAN-202009:16:50 AM			
Actual Completion Date	17-JAN-202009:16:50 AM			

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Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 19

Responding Witness: Daniel K. Arbough

- Q-2-19. Referring to the \$42,037,496 forecast period prepaid pension asset included on Schedule B-5.2, page 5, please provide workpapers in Microsoft Excel, with all formulas intact, supporting the change from the base period amount to the forecasted period amount. In addition, please explain the large increase in the asset between the base period and the forecast period.
- A-2-19. See response to Question No. 2-18 for the development of the base period prepaid pension asset and response to AG-KIUC 1-54, page 1, for the development of the test period prepaid pension asset. The response to AG-KIUC 1-54 in Excel is part of its response to Kroger 2-14. The increase in the prepaid pension asset between the base period and the test period is due to projected contributions and service cost, interest cost, and estimated return on assets during the test period.

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Case No. 2020-00350

Question No. 20

Responding Witness: Christopher M. Garrett

- Q-2-20. Please provide workpapers in Microsoft Excel, with all formulas intact, that support the November 2018 Ice Storm regulatory asset of \$6.5 million.
- A-2-20. See attachment being provided in Excel format. Additionally, see the testimony of Christopher M. Garrett, page 26, lines 14-21 and page 27, lines 1-10 for additional information concerning the November 2018 storm regulatory asset.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 21

- Q-2-21. Please provide the expected amount of the Case No. 2019-00370 Nucor annual payment discussed on page 9 of Kent Blake's direct testimony.
- A-2-21. See the response to AG-KIUC 1-72. The amount of the annual BREC payment is confidential pursuant to the Commission's March 9, 2020 Order in Case No. 2019-00370.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 22

Responding Witness: William Steven Seelye

- Q-2-22. Please provide the results of the Company's most recently approved lead-lag study. In addition, please say when the study was performed and when the Commission reviewed the study.
- A-2-22. The Company's most recently filed lead-lag study was performed for and filed in the Company's last base rate proceeding (Case No. 2018-00295). The Commission, along with various intervenors in the proceeding, had the opportunity to review the results of the study in that proceeding. The Company relied upon the results from the expense lead analysis in that lead-lag study in the current base rate proceeding but updated the revenue lag analysis. The net of the expense leads and revenue lags were applied to base period and test year data to determine cash working capital. The expense lead and revenue lag analysis results relied upon in this proceeding were provided as an attachment to the response to PSC 1-56 (see file named "2020 Att LGE PSC 1-57_LGE_Cash_Working_Capital_12ME_Dec_2019.xlsx").

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 23

Responding Witness: Christopher M. Garrett

- Q-2-23. Please provide workpapers in Microsoft Excel, with all formulas intact, that breakdown the \$59.2 million increase in the Company's revenue requirement attributable to the new depreciation rates by the units shown on page 9 of Lonnie Bellar's direct testimony.
- A-2-23. See attachment being provided in Excel format. Additionally, see the response to Kroger 2-7 for additional information on the impact of the change in depreciation rates on the revenue requirement.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 24

Responding Witness: Lonnie E. Bellar

- Q-2-24. For each unit shown on page 9 of Lonnie Bellar's direct testimony, please state whether the Commission has previously reviewed and approved the new retirement year.
- A-2-24. The Commission has not previously reviewed the "Updated" retirement years. The Commission does not approve retirement dates for generation facilities. The Commission has previously reviewed and approved the Companies' current depreciation rates which are based on the "Current" expected retirement years shown in the table on page 9 of the Bellar direct testimony.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 25

Responding Witness: Robert M. Conroy

- Q-2-25. Please state whether the Commission approved the new retirement year for Mill Creek Unit 1 in the Company's most recent environmental cost recovery case.
- A-2-25. No. The Commission's Order expressly states, "Decisions to retire generation units are effectively in the hands of utilities, while the rate implications of such decisions nevertheless rest with the Commission."³ The Company presented in its 2020 environmental cost recovery ("ECR") plan that Mill Creek 1 is expected to be retired at the end of 2024 due to the cost of complying with Effluent Limitation Guidelines.⁴ The Commission approved the Company's ECR plan in Case No. 2020-00061.⁵

³ Electronic Application of Louisville Gas and Electric Company for Approval of its 2020 Compliance Plan for Recovery by Environmental Surcharge, Case No. 2020-00061, Order at 12 (Ky. PSC Sept. 29, 2020).

⁴ Electronic Application of Louisville Gas and Electric Company for Approval of its 2020 Compliance Plan for Recovery by Environmental Surcharge, Case No. 2020-00061, Direct Testimony of Stuart A. Wilson (Ky. PSC Mar. 31, 2020).

⁵ Electronic Application of Louisville Gas and Electric Company for Approval of its 2020 Compliance Plan for Recovery by Environmental Surcharge, Case No. 2020-00061, Order (Ky. PSC Sept. 29, 2020).

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Question No. 26

- Q-2-26. Please provide a copy of Exhibit KWB-1 that includes only LG&E costs.
- A-2-26. See the attachment being provided in Excel format. Exhibit KWB-1 was prepared for these proceedings on a combined utility basis. In order to be responsive to this request, the attachment includes an allocation of all costs capitalized within CWIP, regulatory assets, regulatory liabilities, and accumulated deferred income taxes between LG&E and KU such that, when combined, the figures shown tie to the as filed Exhibit KWB-1.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 27

- Q-2-27. Please provide the source of the 4.02% average cost of debt used on Exhibit KWB1.
- A-2-27. See attachment being provided in Excel format.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 28

- Q-2-28. Please provide a copy of Exhibit KWB-2 that includes only LG&E costs.
- A-2-28. See the attachment being provided in Excel format. Exhibit KWB-2 was prepared for these proceedings on a combined utility basis. As stated on pages 16-18 of the Blake direct testimony, the amortization of regulatory liabilities and regulatory assets were optimized for the customers' benefit to avoid any increase in the combined revenue requirement of the Companies over the analysis period. In order to be responsive to this request, the attachment includes an allocation of all costs capitalized within CWIP, regulatory assets, regulatory liabilities, and accumulated deferred income taxes between LG&E and KU such that, when combined, the figures shown tie to the as filed Exhibit KWB-2. This is likely not optimized on an individual utility basis as it shows an increase in the revenue requirement of LG&E in certain years with an offsetting reduction in the revenue requirement of KU in those same years. The Companies would expect to consider actual costs, projected benefits, allocations, as well as regulatory asset and liability balances in their next base rate proceedings following full AMI deployment to optimize cost recovery for the benefit of LG&E and KU customers at that time.

Response to Second Request for Information of the United States Department of Defense and All Other Federal Executive Agencies Dated February 5, 2021

Case No. 2020-00350

Question No. 29

- Q-2-29. Referring to Exhibit KWB-1, please provide workpapers in Microsoft Excel, with all formulas intact, that calculate the AFUDC average debt and equity rates used in the exhibit.
- A-2-29. See the attachment being provided in Excel format for the calculation of the AFUDC average debt and equity rates using the FERC methodology. Please see the attachment to Question No. 2-27 for the calculation of the AFUDC average debt and equity rates used in the WACC methodology.