

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2021 JOINT INTEGRATED)	
RESOURCE PLAN OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY AND KENTUCKY)	CASE NO. 2021-00393
UTILITIES COMPANY)	

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY AND
KENTUCKY UTILITIES COMPANY TO
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
SUPPLEMENTAL REQUESTS FOR INFORMATION
DATED MARCH 4, 2022

FILED: MARCH 25, 2022

VERIFICATION

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:
Christopher M. Garrett
Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22nd day of March 2022.

Judy Schuster
Notary Public
Notary Public ID No. 603967

My Commission Expires:
July 11, 2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **David S. Sinclair**, 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 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.



David S. Sinclair

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22nd day of March 2022.



Notary Public

Notary Public ID No. 603967

My Commission Expires:

July 11, 2022

LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY

Response to Kentucky Industrial Utility Customers, Inc.
Supplemental Request for Information
Dated March 4, 2022

Case No. 2021-00393

Question No. 2-1

Responding Witness: Christopher M. Garrett

Q.2-1 Refer to IRP Vol. I at 5-7, Table 5-2. Please provide the net book value at the end of 2021 of the following generating stations by unit (excluding solar or hydro units):

- a. E.W. Brown
- b. Cane Run
- c. Ghent
- d. Mill Creek
- e. Trimble County

A.2-1 See the tables provided below.

KU

Net Book Value as of December 31, 2021

<u>Station</u>	<u>Cost</u>	<u>Reserve</u>	<u>Net Book</u>
E W Brown Unit 3	\$ 1,027,506,585.74	\$ 375,893,447.03	\$ 651,613,138.71
E W Brown CT Unit 5	25,985,922.65	15,294,477.51	10,691,445.14
E W Brown CT Unit 6	50,135,803.65	26,958,129.50	23,177,674.15
E W Brown CT Unit 7	52,493,077.05	28,157,192.28	24,335,884.77
E W Brown CT Unit 8	38,578,164.42	32,896,100.85	5,682,063.57
E W Brown CT Unit 9	48,337,597.74	33,575,450.10	14,762,147.64
E W Brown CT Unit 10	36,555,864.59	24,637,970.64	11,917,893.95
E W Brown CT Unit 11	53,715,688.71	39,766,455.33	13,949,233.38
Cane Run CCGT Unit 7	421,051,575.06	65,880,457.91	355,171,117.15
Ghent Unit 1	646,478,908.27	284,977,538.93	361,501,369.34
Ghent Unit 2	450,567,655.13	231,958,111.54	218,609,543.59
Ghent Unit 3	728,785,099.02	369,839,870.21	358,945,228.81
Ghent Unit 4	1,473,332,201.51	511,389,469.06	961,942,732.45
Trimble County Unit 2	1,037,391,550.66	248,760,574.07	788,630,976.59
Trimble County CT Unit 5	53,851,058.52	26,369,861.89	27,481,196.63
Trimble County CT Unit 6	47,278,923.33	28,996,300.11	18,282,623.22
Trimble County CT Unit 7	37,870,746.65	20,401,211.25	17,469,535.40
Trimble County CT Unit 8	37,727,018.00	20,617,899.36	17,109,118.64
Trimble County CT Unit 9	38,430,496.83	19,780,433.24	18,650,063.59
Trimble County CT Unit 10	45,952,543.19	23,848,519.33	22,104,023.86
Total	\$ 6,352,026,480.72	\$ 2,429,999,470.14	\$ 3,922,027,010.58

LGE			
<u>Net Book Value as of December 31, 2021</u>			
<u>Station</u>	<u>Cost</u>	<u>Reserve</u>	<u>Net Book</u>
E W Brown CT Unit 5	\$ 28,945,462.70	\$ 16,882,031.32	\$ 12,063,431.38
E W Brown CT Unit 6	28,759,137.51	13,912,065.22	14,847,072.29
E W Brown CT Unit 7	30,664,497.56	16,429,718.83	14,234,778.73
Cane Run CCGT Unit 7	122,790,032.44	21,580,003.19	101,210,029.25
Mill Creek Unit 1	270,066,328.10	130,102,405.74	139,963,922.36
Mill Creek Unit 2	406,992,213.27	118,872,994.68	288,119,218.59
Mill Creek Unit 3	573,566,816.07	185,311,940.72	388,254,875.35
Mill Creek Unit 4	1,180,089,902.36	328,465,949.51	851,623,952.85
Trimble County Unit 1	655,378,884.59	282,594,803.33	372,784,081.26
Trimble County Unit 2	375,475,032.90	58,810,234.77	316,664,798.13
Trimble County CT Unit 5	23,060,032.85	11,185,667.48	11,874,365.37
Trimble County CT Unit 6	19,388,467.65	11,860,785.22	7,527,682.43
Trimble County CT Unit 7	22,206,682.32	11,976,335.69	10,230,346.63
Trimble County CT Unit 8	22,099,680.65	12,098,912.99	10,000,767.66
Trimble County CT Unit 9	22,409,485.96	11,516,681.28	10,892,804.68
Trimble County CT Unit 10	27,051,982.14	14,138,587.93	12,913,394.21
Total	\$ 3,808,944,639.07	\$ 1,245,739,117.90	\$ 2,563,205,521.17

Note: Amounts provided for active units only. Excludes amounts for Land and ARO Asset Retirement Cost ("ARC") assets.

**LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY**

**Response to Kentucky Industrial Utility Customers, Inc.
Supplemental Request for Information
Dated March 4, 2022**

Case No. 2021-00393

Question No. 2-2

Responding Witness: Christopher M. Garrett

- Q.2-2 Please provide the current annual depreciation expense for the following generating stations by unit (excluding solar or hydro units) as well as the assumed unit retirement date used for purposes of the depreciation expense calculation:
- a. E.W. Brown
 - b. Cane Run
 - c. Ghent
 - d. Mill Creek
 - e. Trimble County
- A.2-2 See the tables provided below.

KU		
Actual Depreciation Expense for year ended of 12-2021		
Station	<u>Assumed Retirement Date</u>	<u>Depreciation Expense</u>
E W Brown Unit 3	2028	\$ 50,243,075.50
E W Brown CT Unit 5	2041	927,863.76
E W Brown CT Unit 6	2039	2,199,169.54
E W Brown CT Unit 7	2039	1,549,723.45
E W Brown CT Unit 8	2035	1,386,085.13
E W Brown CT Unit 9	2034	1,770,479.66
E W Brown CT Unit 10	2035	1,410,606.44
E W Brown CT Unit 11	2036	2,016,812.37
Cane Run CCGT Unit 7	2055	13,852,057.96
Ghent Unit 1	2034	28,838,110.72
Ghent Unit 2	2034	18,399,293.66
Ghent Unit 3	2037	25,473,678.82
Ghent Unit 4	2037	62,859,206.94
Trimble County Unit 2	2066	22,511,952.87
Trimble County CT Unit 5	2042	1,895,738.93
Trimble County CT Unit 6	2042	1,670,786.83
Trimble County CT Unit 7	2044	1,349,386.86
Trimble County CT Unit 8	2044	1,266,093.03
Trimble County CT Unit 9	2044	1,325,114.13
Trimble County CT Unit 10	2044	1,605,963.98
Total		<u>\$ 242,551,200.58</u>

LGE		
Actual Depreciation Expense for year ended of 12-2021		
<u>Station</u>	<u>Assumed Retirement Date</u>	<u>Depreciation Expense</u>
E W Brown CT Unit 5	2041	\$ 1,051,587.72
E W Brown CT Unit 6	2039	1,430,474.91
E W Brown CT Unit 7	2039	899,293.14
Cane Run CCGT Unit 7	2055	3,872,234.93
Mill Creek Unit 1	2024	14,391,934.18
Mill Creek Unit 2	2028	24,037,730.11
Mill Creek Unit 3	2039	25,044,387.82
Mill Creek Unit 4	2039	47,465,118.43
Trimble County Unit 1	2045	18,101,238.32
Trimble County Unit 2	2066	9,086,048.60
Trimble County CT Unit 5	2042	813,664.85
Trimble County CT Unit 6	2042	687,735.44
Trimble County CT Unit 7	2044	792,681.03
Trimble County CT Unit 8	2044	743,023.52
Trimble County CT Unit 9	2044	777,061.96
Trimble County CT Unit 10	2044	939,896.20
Total		<u>\$ 150,134,111.15</u>

Note: Amounts provided for active units only. Depreciation rates changed effective July 1, 2021 for most units. The retirement date shown for Brown 3 is based on the latest depreciation study, however, depreciation rates are based on a retirement date of 2035 per the rate case settlement. The retirement date shown for Mill Creek 1 and 2 is based on the latest depreciation study, however, depreciation rates are based on a retirement date of 2032 and 2034, respectively, per the rate case settlement.

**LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY**

**Response to Kentucky Industrial Utility Customers, Inc.
Supplemental Request for Information
Dated March 4, 2022**

Case No. 2021-00393

Question No. 2-3

Responding Witness: Christopher M. Garrett

Q.2-3 Please list provide the average annual cost of capital additions over the last three years for the following generating stations by unit (excluding solar or hydro units):

- a. E.W. Brown
- b. Cane Run
- c. Ghent
- d. Mill Creek
- e. Trimble County

A.2-3 See the tables provided below.

<u>KU</u>			
Capital Additions Total FERC Account 101/106 for years 2019-2021			
<u>Station</u>	<u>Capital Additions</u>		<u>3 Year Avg.</u>
E W Brown Unit 3	\$ 64,212,229.81	/3=	\$ 21,404,076.60
E W Brown CT Unit 5	(4,764.11)	/3=	(1,588.04)
E W Brown CT Unit 6	11,703,169.54	/3=	3,901,056.51
E W Brown CT Unit 7	13,254,155.93	/3=	4,418,051.98
E W Brown CT Unit 8	936,821.95	/3=	312,273.98
E W Brown CT Unit 9	537,487.75	/3=	179,162.58
E W Brown CT Unit 10	(9,197.09)	/3=	(3,065.70)
E W Brown CT Unit 11	(81,692.27)	/3=	(27,230.76)
Cane Run CCGT Unit 7	22,445,261.31	/3=	7,481,753.77
Ghent Unit 1	60,973,202.11	/3=	20,324,400.70
Ghent Unit 2	26,205,847.39	/3=	8,735,282.46
Ghent Unit 3	51,769,664.84	/3=	17,256,554.95
Ghent Unit 4	269,049,781.05	/3=	89,683,260.35
Trimble County Unit 2	164,943,221.73	/3=	54,981,073.91
Trimble County CT Unit 5	9,454,281.85	/3=	3,151,427.28
Trimble County CT Unit 6	222,229.03	/3=	74,076.34
Trimble County CT Unit 7	500,069.38	/3=	166,689.79
Trimble County CT Unit 8	2,070,581.06	/3=	690,193.69
Trimble County CT Unit 9	3,050,942.25	/3=	1,016,980.75
Trimble County CT Unit 10	1,596,740.33	/3=	532,246.78
Total	<u>\$ 702,830,033.84</u>		<u>\$ 234,276,677.95</u>

<u>LGE</u>			
Capital Additions Total FERC Account 101/106 for years 2019-2021			
<u>Station</u>	<u>Capital Additions</u>		<u>3 Year Avg.</u>
E W Brown CT Unit 5	\$ (5,372.44)	/3=	\$ (1,790.81)
E W Brown CT Unit 6	7,404,105.30	/3=	2,468,035.10
E W Brown CT Unit 7	8,253,721.86	/3=	2,751,240.62
Cane Run CCGT Unit 7	6,567,650.16	/3=	2,189,216.72
Mill Creek Unit 1	9,713,472.44	/3=	3,237,824.15
Mill Creek Unit 2	24,011,683.41	/3=	8,003,894.47
Mill Creek Unit 3	39,104,561.24	/3=	13,034,853.75
Mill Creek Unit 4	330,862,125.60	/3=	110,287,375.20
Trimble County Unit 1	35,116,154.40	/3=	11,705,384.80
Trimble County Unit 2	157,054,827.07	/3=	52,351,609.02
Trimble County CT Unit 5	3,932,032.19	/3=	1,310,677.40
Trimble County CT Unit 6	90,769.63	/3=	30,256.54
Trimble County CT Unit 7	293,691.86	/3=	97,897.29
Trimble County CT Unit 8	1,216,055.26	/3=	405,351.75
Trimble County CT Unit 9	1,786,038.32	/3=	595,346.11
Trimble County CT Unit 10	882,665.72	/3=	294,221.91
Total	<u>\$ 626,284,182.02</u>		<u>\$ 208,761,394.01</u>

Note: Amounts provided for active units only. Credits on Brown CT Units 5, 10, and 11 are due to minor corrections made to capital projects at final unitization.

**LOUISVILLE GAS AND ELECTRIC COMPANY
KENTUCKY UTILITIES COMPANY**

**Response to Kentucky Industrial Utility Customers, Inc.
Supplemental Request for Information
Dated March 4, 2022**

Case No. 2021-00393

Question No. 2-4

Responding Witness: Christopher M. Garrett / David S. Sinclair

Q.2-4 Please list KU/LG&E's assumed retirement dates for the following generating station units:

- a. All E.W. Brown natural gas combustion turbine generating units
- b. Cane Run Unit 7
- c. Ghent Units 3 and 4
- d. Mill Creek Units 3 and 4
- e. All Trimble County generating units

A.2-4 Note that all retirements occur on June 30.

a.

Unit	BR5	BR6	BR7	BR8	BR9	BR10	BR11
Year	2041	2039	2039	2035	2034	2035	2036

b. 2055

c. 2037 for both units

d. 2039 for both units

e.

Unit	TC1	TC2	TC5	TC6	TC7	TC8	TC9	TC10
Year	2045	2066	2042	2042	2044	2044	2044	2044