

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE APPLICATION)
OF THE FUEL ADJUSTMENT CLAUSE OF) **CASE NO. 2020-00007**
LOUISVILLE GAS AND ELECTRIC)
COMPANY FROM MAY 1, 2019 TO OCTOBER)
31, 2019

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION
DATED FEBRUARY 11, 2020

FILED: FEBRUARY 25, 2020

VERIFICATION

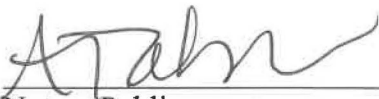
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Michael P. Drake**, being duly sworn, deposes and says that he is Director – Generation Services for 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.



Michael P. Drake

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 24 day of February 2020.

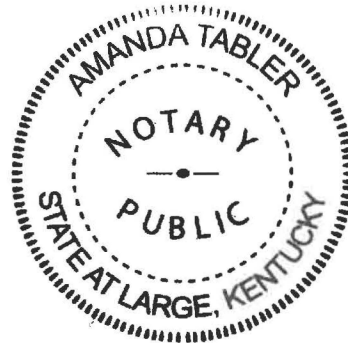


Notary Public (SEAL)

Notary Public, ID. No. 623869

My Commission Expires:

5/23/2023



VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Andrea M. Fackler**, being duly sworn, deposes and says that she is Manager, Revenue Requirement/Cost of Service for LG&E and KU Services Company, and 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.

Andrea M. Fackler
Andrea M. Fackler

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of February 2020.

Judy Schooler (SEAL)

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Director — Power Supply, for 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.


Charles R. Schram

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 15th day of February 2020.

 (SEAL)

Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 1

Responding Witness: Delbert Billiter

Q-1. For the period under review, provide the amount of coal purchased in tons, and the percentage of purchases that were spot versus contract.

A-1. During the review period, LG&E purchased 3,252,232 tons of coal.

Spot: 0% 0 tons

Contract: 100% 3,252,232 tons

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 2

Responding Witness: Delbert Billiter

- Q-2. For the period under review, list each coal purchase made under a long-term contract (one year or greater). For each purchase, list:
- a. Contract or purchase order number;
 - b. The supplier's name;
 - c. The location(s) of production facilities from which the coal is sourced;
 - d. The method of delivery, (i.e., barge, truck, rail, other);
 - e. The actual quantity received during the review period;
 - f. The tonnage requirement for the review period; and
 - g. Current price paid per ton.
- A-2. See attached. Page 1 of the attachment shows only the actual quantity received by LG&E under each contract, and page 2 shows the actual combined quantity received by LG&E and KU under each contract.

Combined LG&E and KU Coal Purchases (unloaded) under long-term contract

May 1, 2019 thru October 31, 2019

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Contract/PO	Supplier	Production Facility	Delivery Method	Actual Quantity Received	Tonnage Requirement*	Current Price**
J17002	Alliance Coal LLC	W-KY	Barge	1,030,467	1,000,000	\$44.31
J18003	Alliance Coal LLC	W-KY	Barge	510,099	500,000	\$39.83
J18009	Alliance Coal LLC	W-KY	Barge	606,185	583,333	\$37.09
J19001	Alliance Coal LLC	W-KY	Rail	461,487	425,000	\$40.00-Dotiki; \$41.50 Warrior
J14001B	Alliance Coal LLC	W-KY	Barge	59,020	80,111	\$37.85
J18008	Arch Coal Sales Company Inc.	WY	Barge	312,637	300,000	\$12.65
J16018	Foresight Coal Sales LLC	IL	Barge	315,395	291,667	\$42.35-IL
J18001	Hartshorne Mining Group LLC	W-KY	Barge	182,884	500,000	\$40.50
J18005	Knight Hawk Coal, LLC	IL	Barge	269,236	250,000	\$36.44
J19003	Peabody COALSLES LLC	IN	Barge, Rail	221,200	180,000	\$40.00-B, \$37.75-R
J14001	Rhino Energy LLC	W-KY	Barge	173,069	106,266	\$38.00
J16006	The American Coal Company	IL, WV	Barge	352,471	325,000	\$39.86-IL, \$38.86-WV
J17004	The American Coal Company	IL	Barge	580,384	575,000	\$36.50-IL
J19004	Western Ky Minerals, Inc	W-KY	Barge	24,278	90,000	\$38.50
J14010C	Western Ky Consolidated Resources, LLC	W-KY	Rail, Barge	64,098	50,000	\$42.00
J16017B	Western Ky Consolidated Resources, LLC	W-KY	Rail, Barge	117,191	100,000	\$40.25
J18002B	Western Ky Consolidated Resources, LLC	W-KY	Rail, Barge	753,003	750,000	\$44.74
J19002	White Stallion	IL	Barge	195,376	210,000	\$41.60
				6,228,481	6,316,377	

*Tonnage Requirement is a ratable volume for combined LG&E and KU coal station shipments

**Prices vary by source/transportation type. Prices as of 10/31/19

Attachment to Response to Question No. 2

BILLITER

Page 2 of 2

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 3

Responding Witness: Delbert Billiter

Q-3.

- a. As of the last day of the review period, state the coal inventory level in tons, and in number of days' supply. Provide this information by generating station and in the aggregate.
- b. Describe the criteria used to determine number of days' supply.
- c. State the target coal inventory level for each generating station, and for the total system.
- d. If actual coal inventory exceeds the target inventory by ten days' supply, state the reasons for the excess inventory.
- e. (1) State whether any significant changes in the current coal inventory target are expected within the next 12 months.

(2) If so, state the expected change, and the reasons for this change.

A-3.

- a. As of October 31, 2019:

Mill Creek ¹	596,626 Tons; 41 Days	Target 20-39 Days
<u>Trimble County^{2,3}</u>	<u>205,846 Tons; 40 Days</u>	<u>Target 21-43 Days</u>
Total	802,472 Tons; 40 Days	Target 20-39 Days

¹ Inventory listed for Mill Creek does not include the 75,000 tons sold to the Refined coal facility operator that remains in the onsite coal pile, as previously discussed in Case No. 2015-00264¹.

¹ Application of Louisville Gas and Electric Company and Kentucky Utilities Company Regarding Entrance Into Refined Coal Agreements, For Proposed Accounting and Fuel Adjustment Clause Treatment, and For Declaratory Ruling, Kentucky Public Service Commission, Case No. 2015-00264, filed August 19, 2015, Final Order November 24, 2015.

² Inventory listed for Trimble County does not include the 32,400 tons sold to the Refined coal facility operator that remains in the onsite coal pile, as previously discussed in Case No. 2015-00264.

³ Trimble County coal inventory tons include LG&E's allocated ownership of high sulfur coal, which is used by Unit 1 and the jointly owned Unit 2, and PRB coal, which is used only by the jointly owned Unit 2. The days in inventory and target range are calculated on a combined generation plant basis regardless of ownership.

- b. The method of calculating days in inventory is based on each plant's coal burn capability (coal tons in inventory divided by 90% of each generating unit's heat input description from its air permit to operate).

Upper and lower days of inventory targets were established for each plant taking into consideration the plant's operating parameters. Each plant's "least cost" inventory range is established annually during the planning process taking into account the risk of coal delivery disruptions, potential coal burn volatility, procurement reaction time for short-term coal supply, cost of unserved energy, and current coal and electricity prices.

- c. See (a) above.
- d. Not applicable.
- e. (1) LG&E does not expect significant changes to its current coal inventory target levels; however, during the Companies' planning cycle minor adjustments may be made to the inventory targets if warranted.

(2) Not applicable.

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 4

Responding Witness: Delbert Billiter

- Q-4. List each written coal-supply solicitation issued during the period under review.
- a. For each solicitation, provide the date of the solicitation, the type of solicitation (contract or spot), the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.

b. For each solicitation, state the number of vendors to whom the solicitation was sent, the number of vendors who responded, and the selected vendor. Provide the bid tabulation sheet or corresponding document that ranked the proposals. (This document should identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.

A-4. a. **SOLICITATION 1**

Date: September 12, 2019
Contract/Spot: Contract
Quantities: No minimum or maximum specified
Quality: Suitable for KU's Ghent and E.W. Brown Stations, LG&E's Mill Creek Station and KU's and LG&E's Trimble County Station
Period: 2020 and beyond - Contract
Generating Units: All units at Ghent, E.W. Brown, Trimble County, and Mill Creek Stations.

- b. Number of vendors sent a solicitation: 72
Number of vendors responded: 8 companies / 19 offers
Selected vendor(s): The vendors selected were based upon the lowest evaluated delivered cost, operational and environmental requirements of the unit and other factors impacting coal supply reliability as noted on the bid evaluation sheets attached.

High Sulfur Coal – Contract

Western Ky. Minerals -- J20006

Alliance Coal Warrior (rail) -- J21003

Alliance Coal River View (barge) -- J21004

The bid analysis information is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

The entire attachment is
Confidential and
provided separately
under seal.

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 5

Responding Witness: Delbert Billiter

- Q-5. List each oral coal-supply solicitation issued during the period under review.
- a. For each solicitation, state why the solicitation was not written, the date(s) of the solicitation, the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
 - b. For each solicitation, identify all vendors solicited and the vendor selected. Provide the tabulation sheet or other documents that rank the proposals. (This document should identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.
- A-5. There were no oral coal-supply solicitations during the period under review.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 6

Responding Witness: Charles R. Schram

- Q-6. For the period under review, list each vendor from whom natural gas was purchased for generation and the quantities and the nature of each purchase (i.e. , spot or contract).
- A-6. See attached for the list of vendors, associated quantities, and the nature of each natural gas purchase.

Attachment to Response to Question No. 6

Page 1 of 1

Schram

<u>Vendor</u>	<u>Type</u> ¹	<u>MMBTU</u>
BP Energy Company	Spot	711,722
Castleton Commodities Merchant Trading L.P.	Spot	78,800
CenterPoint Energy Services, Inc.	Spot	28,000
CIMA Energy, LP	Spot	440,700
Colonial Energy, Inc.	Spot	436,500
ConocoPhillips Company	Spot	1,475,586
Direct Energy Business Marketing, LLC	Spot	189,300
DTE Energy Trading, Inc.	Spot	107,900
Eco-Energy Natural Gas, LLC	Spot	123,766
EDF Trading North America, LLC	Spot	61,908
Engie Energy Marketing NA, Inc.	Spot	19,500
Exelon Generation Company, LLC	Spot	343,600
Hartree Partners, L.P.	Spot	37,100
J. Aron & Company LLC	Spot	16,994
Macquarie Energy, LLC	Spot	13,100
Mercuria Energy America, Inc.	Spot	9,800
NextEra Energy Marketing, LLC	Spot	2,061,448
NJR Energy Services Company	Spot	5,000
Range Resources - Appalachia, LLC	Spot	416,500
Sequent Energy Management, L.P.	Spot	445,880
Shell Energy North America (US), L.P.	Spot	5,006,064
Southwest Energy, L.P.	Spot	130,300
Spire Marketing Inc.	Spot	297,211
Tenaska Marketing Ventures	Spot	6,249,563
Tennessee Gas Pipeline Company, L.P.	Spot	3,988
Texla Energy Management, Inc.	Spot	93,700
TrailStone Energy Marketing, LLC	Spot	53,566
Twin Eagle Resource Management, LLC	Spot	64,100
Uniper Global Commodities North America LLC	Spot	15,000
United Energy Trading, LLC	Spot	36,100
Wells Fargo Commodities, LLC	Spot	63,400
Columbia Gas of Kentucky, Inc.	GSO Customer ²	-
LG&E Gas Supply	Special Contract ³	119,856
Engie Energy Marketing NA, Inc.	Forward	309,826
J. Aron & Company LLC	Forward	1,837,749
NextEra Energy Marketing, LLC	Forward	1,210,885
Uniper Global Commodities North America LLC	Forward	4,598,954
	Total Volume	27,113,366

¹ Spot refers to gas purchases delivered during the next gas day following the transaction. Friday transactions include Sat, Sun, & Mon (holiday weekends can cover four days). Forward refers to gas purchased for delivery periods typically starting after the current month.

² KU is a General Sales Other (GSO) customer of Columbia Gas of Kentucky for the Haefling Plant; no volume purchase commitments.

³ LG&E is the local gas distribution company; no volume purchase commitments.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 7

Responding Witness: Charles R. Schram

- Q-7. For the period under review, state if there were any instances in which a natural gas generating unit could not be operated when it otherwise would have run, due to pipeline constraints or natural gas being unavailable.
- A-7. There were no instances of generating unit restrictions due to pipeline constraints or natural gas unavailability.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 8

Responding Witness: Delbert Billiter / Charles R. Schram

- Q-8. State if there have been any changes to hedging activities for coal or natural gas purchases used for generation since the previous FAC review proceeding. If so, describe the changes in detail.
- A-8. There have been no changes to the physical hedging practices or guidelines since the previous review proceeding. LG&E does not engage in financial hedging activities for its coal or natural gas purchases.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 9

Responding Witness: Delbert Billiter / Charles R. Schram

Q-9.

- a. State whether LG&E has audited any of its fuel or transportation contracts during the period under review.
- b. If so, for each audited contract:
 - (1) Identify the contract;
 - (2) Identify the auditor; and
 - (3) State the results of the audit and describe the actions that LG&E took as a result of the audit.

A-9. a. No. LG&E has not conducted any financial audits of its fuel or transportation contracts.

LG&E's Manager Fuels Technical Services or LG&E's Mining Engineer conducts scheduled on-site reviews and inspections of the mining operations, scales and sampling systems of each vendor up to twice a year, and likewise may conduct unscheduled visits. Additionally, LG&E employees may visit a vendor as needed to address problems and issues at any time.

b. Not applicable.

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 10

Responding Witness: Delbert Billiter / Charles R. Schram

Q-10.

- a. State whether LG&E is currently involved in any litigation with its current or former fuel suppliers or transportation vendors.
- b. If yes, for each litigation:
 - (1) Identify the supplier or vendor;
 - (2) Identify the contract involved;
 - (3) State the potential liability or recovery to LG&E;
 - (4) List the issues presented; and
 - (5) Provide a copy of the complaint or other legal pleadings that initiated the litigation and any answers or counterclaims. If a copy has previously been filed with the Commission, provide the date on which it was filed and the case in which it was filed.
- c. State the current status of all litigation with suppliers or vendors.

A-10.

- a. LG&E is not currently involved in any litigation with its fuel suppliers or transportation vendors.
- b. Not applicable.
- c. Not applicable.

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 11

Responding Witness: Delbert Billiter / Charles R. Schram

Q-11.

- a. For the period under review, state if there have been any changes to LG&E's written policies and procedures regarding its fuel procurement.
- b. If yes:
 - (1) Describe the changes;
 - (2) Provide the written policies and procedures as changed;
 - (3) State the date(s) the changes were made; and
 - (4) Explain why the changes were made.
- c. If no, provide the date LG&E's current fuel procurement policies and procedures were last changed, when they were last provided to the Commission, and identify the proceeding in which they were provided.

A-11.

- a-c. During the period under review, there were no changes to The Corporate Fuels and By-Products Procurement Procedures for coal. The Corporate Fuels and By-Products Procurement Procedures were last updated April 1, 2017 and were provided to the Commission in Case No. 2017-00285² in response to Question No. 15.

During the period under review, there were no changes to the Power Supply Commodity Policy – Natural Gas Fuel for Generation. The Power Supply Commodity Policy – Natural Gas Fuel for Generation was last updated August

² *Electronic Examination of the Application of the Fuel Adjustment Clause of Louisville Gas and Electric Company From November 1, 2016 Through April 30, 2017, Kentucky Public Service Commission, Case No. 2017-00285, filed August 30, 2017, Final Order January 10, 2018*

1, 2017 and was provided to the Commission in Case No. 2018-00021³ in response to Question No. 11.

³ *Electronic Examination of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company From May 1, 2017 Through October 31, 2017, Kentucky Public Service Commission, Case No. 2018-00021*, filed February 16, 2018, Final Order May 18, 2018

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 12

Responding Witness: Stuart Wilson

Q-12. For the period under review, list all firm power commitments for (a) purchases and (b) sales. This list shall identify the electric utility, the amount of commitment in MW, and the purpose of the commitment (i.e., peaking, emergency).

A-12. a. Firm Purchases

The firm purchases from Ohio Valley Electric Corporation (OVEC) for the review period are shown in the table below. LG&E purchased its participation ratio (5.63%) of the OVEC released capacity for the months in question:

<u>Utility</u>	<u>Companies' Amt. (MW)</u>	<u>LG&E Portion (MW)</u>	<u>Purpose</u>
OVEC (May 2019)	~ 85	~ 59	Baseload
OVEC (Jun 2019)	~ 143	~ 99	Baseload
OVEC (Jul 2019)	~ 152	~ 105	Baseload
OVEC (Aug 2019)	~ 152	~ 105	Baseload
OVEC (Sep 2019)	~ 119	~ 82	Baseload
OVEC (Oct 2019)	~ 99	~ 68	Baseload

b. Sales – NONE

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 13

Responding Witness: Andrea M. Fackler

- Q-13. Provide a monthly billing summary of sales to all electric utilities for the period under review.
- A-13. See Page 2, Sheet 1 of 3 of the May 2019 through October 2019 monthly Form B filings that were previously filed with the Commission.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 14

Responding Witness: Andrea M. Fackler

Q-14. Describe the effect on the FAG calculation of line losses related to:

- a. Intersystem sales when using a third-party transmission system, and
- b. Intersystem sales when not using a third-party transmission system.

A-14. Line losses related to inter-system sales are calculated using a loss factor of 0.5% whether the inter-system sale requires a third-party transmission system or not. This practice is consistent with the Commission's June 7, 2013, Amended Order in Case No. 2012-00553⁴.

⁴ *Electronic Examination of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company From November 1, 2010 Through October 31, 2012, Kentucky Public Service Commission, Case No. 2012-00553, filed February 13, 2013, Amended Order June 7, 2013*

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 15

Responding Witness: Michael P. Drake

- Q-15. Provide a list, in chronological order, showing by unit, any scheduled, actual, and forced outages for the period under review.
- A-15. See attached.

Louisville Gas & Electric Company
 May 2019 through October 2019

Unit and Outage Type (F=Forced; S=Scheduled)	Scheduled		Actual*		HOURS OF DURATION		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE	
	FROM	TO	FROM	TO	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE	
Mill Creek Unit 1 - Coal - 300 MW In-service August 1972	S		3/8/2019 15:39	5/6/2019 0:00	0:00	1400:21	Planned outage for ash handling conversion	
	S	5/6/2019 0:00	5/6/2019 18:00	5/6/2019 0:00	5/6/2019 18:00	18:00	18:00	Planned outage for ash handling conversion
	F		5/6/2019 18:00	5/8/2019 8:55		38:55	Generator Seal Oil System	
	F		5/10/2019 8:36	5/10/2019 18:36		10:00	Turbine Vibration	
	F		9/19/2019 17:09	9/20/2019 14:04		20:55	Condenser Tube Leak repair	
Mill Creek Unit 2 - Coal - 295 MW In-service July 1974	F		9/8/2019 17:15	9/10/2019 12:34		43:19	Boiler tube leaks	
	S	9/14/2019 0:31	9/16/2019 0:32	9/14/2019 0:31	9/16/2019 0:32	48:01	48:01	Boiler tube leaks
Mill Creek Unit 3 - Coal - 394 MW In-service August 1978	F		9/19/2019 17:07	9/19/2019 23:19		6:12	ID Fan variable frequency drive (VFD) fault	
	S		10/3/2019 23:10	11/1/2019 0:00	0:00	672:50	Major turbine overhaul	
Mill Creek Unit 4 - Coal - 486 MW In-service September 1982	S		9/20/2019 22:05	9/27/2019 7:49	0:00	153:44	Boiler Maintenance	
Trimble County Unit 1 - Coal - 370 MW In-service December 1990 75% ownership share of 511 MW	S	6/2/2019 0:26	6/5/2019 22:54	6/2/2019 0:26	6/5/2019 22:54	94:28	94:28	Air Heater - Wash
	F			6/8/2019 10:57	6/12/2019 4:43		89:46	Boiler Superheater Tube Leak
	S	6/22/2019 12:30	6/23/2019 20:41	6/22/2019 12:30	6/23/2019 20:41	32:11	32:11	Boiler first reheater leak repair
	S	7/25/2019 2:39	7/28/2019 0:00	7/25/2019 2:39	7/28/2019 0:00	69:21	69:21	Boiler Superheater Tube Leak
	S	7/28/2019 0:00	7/28/2019 8:50	7/28/2019 0:00	7/28/2019 8:50	8:50	8:50	Boiler Superheater Tube Leak
	S	9/17/2019 22:03	9/19/2019 13:25	9/17/2019 22:03	9/19/2019 13:25	39:22	39:22	Boiler Superheater Tube Leak
Trimble County Unit 2 - Coal - 570 MW In-service January 2011 75% ownership share of 732 MW jointly owned with KU	S	4/29/2019 0:00	5/6/2019 0:00	4/29/2019 0:00	5/6/2019 0:00	168:00	168:00	Major turbine overhaul
	F			5/6/2019 0:00	5/10/2019 11:26		107:26	Turbine/Generator Bearing Repair
	F			5/10/2019 11:26	5/10/2019 19:47		8:21	Turbine/Generator Vibration
	F			5/10/2019 19:47	5/12/2019 5:49		34:02	Turbine/generator vibration balance correction
	F			5/12/2019 5:49	5/13/2019 12:02		30:13	Turbine/generator vibration balance correction
	F			5/13/2019 14:04	5/14/2019 4:29		14:25	Turbine/generator vibration balance correction
	F			5/14/2019 5:31	5/14/2019 14:32		9:01	Burner Management System Problem
	F			5/14/2019 17:07	5/16/2019 1:30		32:23	Feedwater Pump Controls
	F			5/16/2019 6:53	5/16/2019 14:52		7:59	Feedwater Pump Controls
	F			5/16/2019 17:05	5/18/2019 10:13		41:08	Feedwater Pump Controls
	S	5/22/2019 6:45	5/25/2019 17:15	5/22/2019 6:45	5/25/2019 17:15	82:30	82:30	Turbine/generator vibration balance correction
	F			7/13/2019 3:45	7/13/2019 12:27		8:42	Feedwater Pump Control Problem
	F			7/27/2019 16:11	7/30/2019 19:28		75:17	Boiler first reheater leak repair
	F			8/10/2019 13:00	8/12/2019 16:49		51:49	Boiler waterwall tube leak repair
	F			10/16/2019 23:00	10/18/2019 5:15		30:15	Boiler waterwall tube leak repair
	S			10/18/2019 5:15	10/24/2019 9:35	0:00	148:20	Feedwater Pump Maintenance
	Cane Run Unit 7 - Gas - 683 MW In-service June 2015 Jointly owned with KU	S	6/7/2019 19:35	6/11/2019 0:00	6/7/2019 19:35	6/11/2019 0:00	76:25	76:25
E. W. Brown Unit 5 - Gas CT - 130 MW In-service June 2001 Jointly owned with KU		No outages > or = 6 hours						

*Actual outage dates and hours of duration include scheduled and forced outages.

E. W. Brown Unit 6 - Gas CT - 171 MW In-service August 1999 Jointly owned with KU	S			4/11/2019 5:07	5/25/2019 0:00	0:00	1050:53	Combustion turbine overhaul
	S	5/25/2019 0:00	5/31/2019 12:41	5/25/2019 0:00	5/31/2019 12:41	156:41	156:41	Combustion turbine overhaul
	S	6/1/2019 4:00	6/2/2019 10:06	6/1/2019 4:00	6/2/2019 10:06	30:06	30:06	Combustion turbine overhaul
	F			6/3/2019 8:35	6/4/2019 6:56		22:21	Fuel Gas System
	F			6/4/2019 9:16	6/4/2019 15:53		6:37	Fuel Gas System
	S	6/4/2019 18:25	6/5/2019 15:02	6/4/2019 18:25	6/5/2019 15:02	20:37	20:37	Combustion turbine overhaul
	S	6/6/2019 14:28	6/7/2019 11:42	6/6/2019 14:28	6/7/2019 11:42	21:14	21:14	Combustion turbine overhaul
	S	6/18/2019 8:17	6/18/2019 17:27	6/18/2019 8:17	6/18/2019 17:27	9:10	9:10	Gas Turbine Control System Inspection
	F			6/21/2019 18:57	6/22/2019 10:30		15:33	Combustion System Maintenance
	F			7/8/2019 19:23	7/9/2019 10:31		15:08	combustion system maintenance
	S	7/23/2019 6:37	7/23/2019 12:49	7/23/2019 6:37	7/23/2019 12:49	6:12	6:12	Gas line maintenance
	S			9/5/2019 16:00	9/11/2019 7:30	0:00	135:30	Borescope Inspection
	F			10/10/2019 15:44	10/11/2019 9:06		17:22	Combustion Turbine Enclosure Ventilation System
	F			10/17/2019 5:06	10/17/2019 13:36		8:30	Fuel Gas System
E. W. Brown Unit 7 - Gas CT - 171 MW In-service August 1999 Jointly owned with KU	S	6/7/2019 8:13	6/30/2019 9:00	6/7/2019 8:13	6/30/2019 9:00	552:47	552:47	Generator Maintenance and Testing
	F			6/30/2019 9:00	8/4/2019 13:26		844:26	Generator Maintenance and Testing
	S			9/3/2019 16:00	9/13/2019 0:00	0:00	224:00	Borescope Inspection
	S	9/13/2019 0:00	9/13/2019 13:58	9/13/2019 0:00	9/13/2019 13:58	13:58	13:58	Borescope inspection
Cane Run Unit 11 - Gas CT - 14 MW In-service June 1968	S	6/7/2019 15:31	6/10/2019 7:48	6/7/2019 15:31	6/10/2019 7:48	64:17	64:17	Coal Plant Demolition
	F			7/19/2019 10:25	7/19/2019 23:59		13:34	Substation Fault
	F			7/23/2019 15:11	10/3/2019 15:00		1727:49	Turning Gear
				10/3/2019 15:00	12/1/2019 0:00		1401:00	
Paddys Run Unit 11 - Gas CT - 13 MW In-service June 1968	F			3/20/2019 14:08	5/20/2019 13:54		1463:46	Starting system repair
Paddys Run Unit 12 - Gas CT - 28 MW In-service July 1968	F			9/11/2019 5:55	9/11/2019 12:04		6:09	Substation Fault
Paddys Run Unit 13 - Gas CT - 175 MW In-service June 2001 Jointly owned with LG&EKU	S			5/4/2019 5:28	5/27/2019 0:00	0:00	546:32	Generator Maintenance and Vibration Monitoring System
	S	5/27/2019 0:00	5/28/2019 17:00	5/27/2019 0:00	5/28/2019 17:00	41:00	41:00	Generator Maintenance and Vibration Monitoring System
	F			5/28/2019 17:00	6/10/2019 7:32		302:32	Combustion Turbine/Generator Bearings
	F			6/13/2019 13:02	6/14/2019 8:56		19:54	Transmission System Voltage Issues
Trimble County Unit 5 - Gas CT - 179 MW In-service May 2002 Jointly owned with KU	S	6/21/2019 6:15	6/21/2019 12:59	6/21/2019 6:15	6/21/2019 12:59	6:44	6:44	Combustion Turbine Compressor Washing
Trimble County Unit 6 - Gas CT - 179 MW In-service May 2002 Jointly owned with KU	S	6/25/2019 5:11	6/25/2019 14:55	6/25/2019 5:11	6/25/2019 14:55	9:44	9:44	Hydraulic pump maintenance
	S	9/26/2019 8:16	9/26/2019 19:12	9/26/2019 8:16	9/26/2019 19:12	10:56	10:56	Hydraulic pump maintenance
	S	10/25/2019 20:05	10/29/2019 7:01	10/25/2019 20:05	10/29/2019 7:01	82:56	82:56	Combustion Turbine vibration balance correction
Trimble County Unit 7 - Gas CT - 179 MW In-service June 2004 Jointly owned with KU	S	5/14/2019 5:10	5/14/2019 15:13	5/14/2019 5:10	5/14/2019 15:13	10:03	10:03	Combustion Turbine vibration investigation
	S	6/4/2019 6:15	6/4/2019 13:40	6/4/2019 6:15	6/4/2019 13:40	7:25	7:25	Combustion Turbine Compressor Washing
	S			9/16/2019 20:02	9/21/2019 7:00	0:00	106:58	Maintenance outage on switchyard system protection devices
Trimble County Unit 8 - Gas CT - 179 MW In-service June 2004 Jointly owned with KU	S			9/13/2019 22:16	9/29/2019 7:40	0:00	369:24	Exhaust Duct Repair/Refurbishment
Trimble County Unit 9 - Gas CT - 179 MW In-service July 2004 Jointly owned with KU	S	6/19/2019 6:24	6/19/2019 12:38	6/19/2019 6:24	6/19/2019 12:38	6:14	6:14	Combustion Turbine Compressor Washing
	F			9/14/2019 2:57	9/14/2019 10:45		7:48	Fuel piping and valves

Trimble County Unit 10 - Gas CT - 179 MW In-service July 2004	S	5/3/2019 5:15	5/3/2019 19:44	5/3/2019 5:15	5/3/2019 19:44	14:29	14:29	Lube Oil System Maintenance
	S	6/14/2019 6:40	6/14/2019 13:04	6/14/2019 6:40	6/14/2019 13:04	6:24	6:24	Compressor washing
Jointly owned with KU								
Zorn Unit 1 - Gas CT - 16 MW In-service May 1969	F			1/1/2019 0:00	8/14/2019 11:54		5411:54	Control System Power Supply Repair
	F			8/14/2019 12:51	8/15/2019 10:45		21:54	Gas Line Inspection/Maintenance

*Actual outage dates and hours of duration include scheduled and forced outages.

LOUISVILLE GAS AND ELCTRIC COMPANY

Response to Commission Staff’s First Request for Information
Dated February 11, 2020

Case No. 2020-00007

Question No. 16

Responding Witness: Stuart Wilson

Q-16. For the period under review, provide the monthly capacity factor at which each generating unit operated.

A-16. See table below.

	Capacity Factor (%)					
	(Net MWh)/(period hours x MW rating)					
	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019
Brown 5	9.5	2.3	10.7	8.8	7.5	17.7
Brown 6	0.3	9.5	22.5	16.2	18.2	30.7
Brown 7	3.5	0.0	0.0	9.5	1.0	3.3
Brown Solar	23.9	25.5	27.9	26.8	25.6	18.7
Cane Run 7	78.7	77.6	91.4	89.9	88.4	93.9
Cane Run 11	0.0	0.0	0.0	0.0	0.0	0.0
Mill Creek 1	46.0	58.7	73.6	69.5	70.5	74.7
Mill Creek 2	68.0	64.9	70.8	68.0	62.4	74.5
Mill Creek 3	74.2	72.9	77.7	74.5	74.8	7.5
Mill Creek 4	72.6	72.6	77.9	77.2	59.4	74.9
Ohio Falls 1	7.9	7.5	18.0	0.0	0.0	7.4
Ohio Falls 2	11.5	16.6	33.8	5.0	0.0	10.9
Ohio Falls 3	14.9	16.9	46.0	12.5	0.0	16.0
Ohio Falls 4	25.1	22.7	58.1	29.3	5.9	28.5
Ohio Falls 5	5.4	27.9	64.5	53.1	12.8	36.2
Ohio Falls 6	39.4	29.3	66.9	63.4	20.0	32.7
Ohio Falls 7	43.3	28.6	65.4	79.9	33.6	52.3
Ohio Falls 8	43.8	29.3	59.9	82.3	54.8	63.3
Paddy’s Run 11	0.0	0.0	0.0	0.0	0.0	0.0
Paddy’s Run 12	0.0	0.0	0.0	0.0	1.8	0.0
Paddy’s Run 13	1.2	2.6	7.4	3.4	7.4	11.7
Trimble County 1	92.4	59.5	81.6	89.5	84.3	31.0
Trimble County 2	25.0	91.3	79.6	85.8	93.9	71.2
Trimble County 5	20.1	9.9	23.9	18.5	25.0	46.1
Trimble County 6	6.9	3.1	8.4	2.0	8.5	13.8
Trimble County 7	11.4	3.4	15.2	3.7	11.5	22.6
Trimble County 8	0.0	0.9	5.3	4.0	5.0	13.8
Trimble County 9	3.4	2.8	4.5	7.6	17.3	29.8
Trimble County 10	0.6	9.6	9.6	0.5	2.9	1.8
Zorn	0.0	0.0	0.0	0.1	0.0	0.1

Notes:

1 – Trimble County values reflect 100% of the unit. Trimble County 1 is owned by LG&E (75%), IMPA (12.88%), and IMEA (12.12%). Trimble County 2 is owned by KU (60.75%), LG&E (14.25%), IMPA (12.88%), and IMEA (12.12%).

2 – The North American Electric Reliability Council Generation Availability Data System defines capacity factor as the value equal to the net MWh produced divided by the product of the hours in the period and the unit rating.

3 – Jointly owned units are shown for both LG&E and KU and include Brown 5-7, Brown Solar, Cane Run 7, Paddy's Run 13, Trimble County 2, and Trimble County 5-10.

LOUISVILLE GAS AND ELCTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 17

Responding Witness: Michael P. Drake

Q-17.

- a. For the period under review, explain if LG&E made any changes to its maintenance and operation practices, or completed any specific generation efficiency improvements that affect fuel usage at LG&E's generation facilities.
- b. Describe the impact of these changes on LG&E's fuel usage.

A-17.

- a-b. There have been no maintenance or operation practice changes that affect fuel usage during the period under review. LG&E strives to maintain unit efficiency through routine cyclic planned outage maintenance. This maintenance work continues to focus on reestablishing expected turbine efficiency through continuous monitoring of all plan systems during operation. LG&E contracts Black and Veatch to provide this monitoring on larger units to identify trends which indicate a potential efficiency loss of any system component. Black and Veatch sends notification to the generating stations which track the potential issues through resolution. In evaluating potential major component projects or replacements that may impact efficiency, LG&E must balance any potential efficiency benefit associated with the project against both costs and potential implications under the Clean Air Act. LG&E has not realized any efficiency improvements through major component projects during this period.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 18

Responding Witness: Delbert Billiter / Charles R. Schram

- Q-18. State whether LG&E is aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period under review.
- A-18. LG&E is not aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period under review.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 19

Responding Witness: Andrea M. Fackler

Q-19. State whether LG&E is aware of any violations of 807 KAR 5:056 that occurred prior to or during the period under review.

A-19. LG&E is not aware of any violations of 807 KAR 5:056 that occurred prior to or during the period under review.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated February 11, 2020**

Case No. 2020-00007

Question No. 20

Responding Witness: Andrea M. Fackler

- Q-20. State whether all fuel contracts related to commodity and transportation have been filed with the Commission. If any contracts have not been filed, explain why they have not been filed, and provide a copy.
- A-20. For the period under review, all fuel contracts related to commodity and/or transportation have been filed with the Commission.