

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**AN ELECTRONIC EXAMINATION OF THE)
APPLICATION OF THE FUEL ADJUSTMENT) CASE NO. 2022-00265
CLAUSE OF KENTUCKY UTILITIES COMPANY)
FROM NOVEMBER 1, 2021 TO APRIL 30, 2022)**

In the Matter of:

**AN ELECTRONIC EXAMINATION OF THE)
APPLICATION OF THE FUEL ADJUSTMENT) CASE NO. 2022-00266
CLAUSE OF LOUISVILLE GAS AND ELECTRIC)
COMPANY FROM NOVEMBER 1, 2021 TO)
APRIL 30, 2022)**

**DIRECT TESTIMONY OF
DELBERT BILLITER
DIRECTOR – COAL SUPPLY & BY-PRODUCTS MARKETING
KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

Filed: SEPTEMBER 30, 2022

1 **Q. Please state your name, position, and business address.**

2 A. My name is Delbert Billiter. I am the Director, Coal Supply & By-Products Marketing
3 for LG&E and KU Services Company, which provides services to Kentucky Utilities
4 Company (“KU”) and Louisville Gas and Electric Company (“LG&E”) (collectively
5 “the Companies”). My business address is 220 West Main Street, Louisville, Kentucky
6 40202. A statement of my education and work experience is attached to this testimony
7 as Appendix A.

8 **Q. What is the purpose of your testimony?**

9 A. I am submitting this testimony in response to the Order entered in this proceeding by
10 the Commission on September 13, 2022 (“Order”) directing the Companies to file
11 written direct testimony on a number of issues relating to fuel procurement during the
12 six-month period ended April 30, 2022 (“Review Period”).

13 **Q. Please comment generally on the reasonableness of the Companies’ fuel**
14 **procurement practices during the Review Period.**

15 A. The Companies’ coal procurement practices are sufficiently flexible to allow for an
16 effective response to changes in market conditions while maintaining a reliable low-
17 cost coal supply. Although the Companies typically issue formal, sealed-bid
18 solicitations to meet its coal consumption and inventory needs, under its written fuel
19 procurement procedures, the Companies may solicit offers through more informal
20 means or may respond to unsolicited offers to the extent prices and terms and
21 conditions of such offers are competitive with existing market conditions. These
22 practices, which allow the Companies to make optimal use of the market, are

1 memorialized in the Companies' written Corporate Fuels and By-Products
2 Procurement Procedures.

3 During the Review Period, the Companies conducted two (2) written and no
4 oral coal supply solicitations in the competitive marketplace. The solicitations and
5 associated bid tabulation sheets are contained in the response to the Commission's First
6 Data Request Question No. 4(a) and (b). In addition, each vendor from whom the
7 Companies purchased coal under long-term contract during the Review Period, and the
8 quantities and current price, are identified in the response to the Commission's First
9 Data Request Question No. 2.

10 **Q. Did the Companies comply with these fuel procurement procedures during the**
11 **Review Period?**

12 A. Yes.

13 **Q. Please describe the coal suppliers' adherence to contract delivery schedules**
14 **during the Review Period.**

15 A. Generally, performance compared to contract was good for the Companies' suppliers
16 during the Review Period. The Companies continually monitor contract requirements
17 against actual deliveries and regularly check the weight and quality of the coal
18 delivered. In addition, the Companies have a mining engineer who visits and inspects
19 coal suppliers on a regular basis to help identify any potential supply disruptions and
20 verify the existence of conditions that are impacting supplier performance. In 2021
21 and 2022, the Companies experienced reduced deliveries from contracted supply,
22 including White Stallion Energy rejecting the Companies' contract in bankruptcy, a
23 force majeure at Foresight's Deer Run and Sugar Camp mines (because of mine fires),

1 and the closure of Western Kentucky Minerals' Joes Run mine. Spot purchases and
2 increased nominations on existing contracts were used to backfill the under deliveries
3 resulting from these events. Poor performance from the NS railroad during 2021 and
4 2022 also negatively impacted coal deliveries to the E. W. Brown Station.

5 A list of the Companies' purchases under long-term fuel contracts compared to
6 the ratable contract obligation is contained in the response to the Commission's First
7 Data Request Question No. 2.

8 **Q. What were the Companies' efforts to ensure the coal suppliers' adherence to**
9 **contract delivery schedules during the Review Period?**

10 A. The Companies regularly communicate with suppliers to identify any potential
11 problems in meeting agreed-upon delivery schedules. This includes daily
12 correspondence between logistics personnel and periodic on-site mine visits by the
13 Companies' representatives. When suppliers experience issues meeting the delivery
14 schedule, the Companies work with suppliers to explore options to meet the contract
15 requirement. These options include adjusting future schedule quantity, allowing
16 deliveries from alternate sources, and/or utilizing alternative transportation options or
17 a combination of these options.

18 The Companies also work with suppliers on deliveries and make-up of force
19 majeure events. This has proven to be an effective strategy over time that results in
20 reasonably priced coal being delivered to the Companies' generation stations.

21 **Q. Please describe the Companies' efforts to maintain the adequacy of coal supplies**
22 **in light of any coal supplier's inability or unwillingness to make contract coal**
23 **deliveries.**

1 A. If, after making efforts to mitigate a supplier's inability to make contract deliveries, as
2 described above, a supplier is unable to make contract deliveries or if a supplier is
3 unwilling to make contract deliveries, the Companies could, as necessary, solicit the
4 coal market to purchase additional coal to offset the delivery deficits. The Companies
5 could also utilize on-site inventory to address delivery deficits. In addition, the
6 Companies would exercise contractual rights to address any delivery deficits with the
7 supplier.

8 To mitigate potential delivery issues with any one supplier, the Companies
9 maintain, when operationally possible and economically practical, a diversity of
10 suppliers. This diversity assists in maintaining an adequate supply by limiting the
11 impact of a delivery shortfall from an individual supplier. Maintaining supplier
12 diversity has become increasing more difficult as the number of coal suppliers
13 continues to decline because of falling coal demand and industry consolidation.

14 These efforts, coupled with ongoing procurement pursuant to the Companies'
15 procedures, produced adequate coal supplies through the end of the Review Period.

16 **Q. Were there any changes in coal market conditions that occurred during the**
17 **Review Period or that the Companies expects to occur within the next two years**
18 **that have significantly affected or will significantly affect the Companies' coal**
19 **procurement practices?**

20 A. During the past year, the coal market has experienced and continues to experience
21 significant changes that have resulted in tight supply and record high prices. Although
22 these changes have affected the Companies' bargaining power with suppliers, they did
23 not alter, nor are they expected to alter, the Companies' coal procurement practices.

1 The Companies' coal procurement practices allow the Companies to respond
2 effectively to changes in market conditions.

3 Following a year that saw energy demand crushed by a worldwide pandemic,
4 most industry analysts forecasted a recovery in 2021. However, no one anticipated the
5 significant rebound in coal and natural gas demand that the U.S. and the world has
6 experienced—most of the increase occurring during the second half of 2021 and
7 continued into 2022. Coal burn for electric generation in the U.S. dropped by 102
8 million tons (-19%) in 2020 compared to 2019 and increased 78 million tons (+18%)
9 in 2021 compared to 2020. In addition, exports of steam coal in 2021, estimated at 40
10 million tons, increased 47% over 2020. Increased coal demand from the electric power
11 sector was primarily a result of higher natural gas prices making coal-fired generation
12 more competitive. As coal demand increased, production increases did not keep pace.
13 While U.S. coal production increased 44 million tons in 2021 compared to 2020, coal
14 producers were hampered by equipment, capital, and labor shortages. The issues
15 continue to limit suppliers' ability to increase production. In addition, coal production
16 was specifically impacted by the White Stallion/Eagle River bankruptcy, mine fires at
17 Foresight's Deer Run and Sugar Camp mines and the closure of Western Kentucky
18 Minerals' Joes Run mine. The lack of sufficient supply forced consumers to draw down
19 inventory. The supply/demand imbalance also resulted in rising coal prices—more
20 than quadrupling the spring 2021 levels. Fortunately, the majority of the Companies'
21 coal requirements for 2022 and 2023 are under long term contracts. This contract
22 position limits the exposure to current high market prices. System average coal costs
23 are expected to only increase approximately 12% in 2022 and 2023 compared to 2021.

1 The Companies' coal costs will increase more in 2024 and beyond if high coal prices
2 persist as the Companies make purchases to fill open positions.

3 The U.S. Energy Information Administration's ("EIA") *Short-Term Energy*
4 *Outlook* released January 11, 2022, provides an overview of the 2021 coal market and
5 changes expected in the U. S. coal market through 2023:

6 **Coal production.** U.S. coal production totaled 579 million short tons
7 (MMst) in 2021, up 44 MMst (8%) from 2020. The 2021 increase primarily
8 reflected more consumption of coal in the electric power sector amid an
9 increase in natural gas spot prices, which made coal more economically
10 competitive relative to natural gas for electricity generation dispatch.

11
12 In 2022, we expect U.S. coal production to increase by 33 MMst (6%) to
13 612 MMst. Our forecast coal production increases by 27 MMst (8%) in the
14 Western Region, 3 MMst (3%) in the Interior Region, and 2 MMst (2%) in
15 Appalachia.

16
17 In 2023, we expect coal production to increase by 8 MMst (1%) to 619
18 MMst. Coal production rises by 8 MMst (2%) in the Western Region and
19 by 3 MMst (3%) in the Interior Region. Forecast production declines by 2
20 MMst (1%) in Appalachia.

21
22 Despite less demand from the electric power sector, we expect coal
23 production will grow in 2022 and 2023. The expected increased
24 production reflects demand to replenish depleted coal stocks. Electric
25 power sector inventories saw significant draws in 2021, and we expect
26 stocks to increase by the end of 2023. In our forecast, inventories reach
27 85 MMst at the end of 2022 and 91 MMst at the end of 2023. In addition,
28 we expect rising demand for coking coal—used for steelmaking—both
29 domestically and for export.

30
31 Much of the decrease in coal mine capacity that occurred in 2020 appears
32 to be permanent. Coal producers have experienced labor and capital
33 shortages, which we expect will continue to limit supply in the forecast.
34 Despite these limitations, we forecast more coal production in 2022 and
35 2023 than in 2021 as utilization at existing mines rises.

36
37 **Coal consumption.** In this forecast, we expect the retirement of
38 approximately 19 gigawatts (GW) of coal-fired power plant capacity
39 through 2023, a decline of 9%. As a result, we forecast electric power
40 sector demand for coal will decrease by 14 MMst in 2022 and by 2 MMst
41 in 2023. Rising natural gas prices led to increased demand for coal-fired
42 power generation in 2H21. We expect that natural gas prices will remain

1 relatively high compared with past years, keeping coal consumption in the
2 electric power sector above 2020 levels but below 2021 levels. The
3 expected decline in electric power sector consumption leads to a decline
4 in overall coal consumption in our forecast. We forecast total U.S. coal
5 consumption for all sectors to decrease by 11 MMst (2%) in 2022 to 534
6 MMst and by a further 3 MMst (<1%) in 2023 to 532 MMst.

7
8 Coal is an essential component of the steel-making process. Demand for
9 coal to make steel increases by 16% in 2022 and by 3% in 2023, particularly
10 for infrastructure-related materials. As a result, we expect demand for
11 coking coal to rise by more than 3 MMst from 2021 to 2023, offsetting
12 some of the decline in electric power sector coal consumption.

13
14 **Coal trade.** Annual U.S. coal exports increased by an estimated 26% in
15 2021 to reach 87 MMst. Metallurgical coal exports were 47 MMst in 2021,
16 12% more than the previous year, and steam coal exports were 40 MMst,
17 47% more than in 2020.

18
19 A majority of the 25 leading U.S. coal export destinations increased their
20 imports of U.S. coal in 2021 through October, which is our most recent
21 data. The ongoing trade dispute between Australia and China has
22 continued to increase opportunities for swing coal suppliers, such as the
23 United States, to gain market share and increase overall exports of coal.
24 Between January and October 2021, China imported almost 11 MMst of
25 U.S. coal, more than in the previous four years combined. Metallurgical
26 coal accounts for a large share of China's imports, representing about 90%
27 of China's imports of U.S. coal in 2021.

28
29 We expect U.S. coal exports will rise by 1 MMst in 2022 and by 3 MMst in
30 2023. The increase reflects our assumption that the seaborne coal market
31 in 2022 and 2023 will experience slightly higher demand for U.S. coal.
32 Metallurgical coal will drive the increase in coal exports. We assume global
33 steel production, which increased moderately 2021, will grow further
34 during the forecast period and increase U.S. metallurgical coal exports to
35 50 MMst in 2022 and 55 MMst in 2023. Forecast U.S. steam coal exports
36 total 38 MMst in 2022 and 37 MMst in 2023, largely unchanged from 2021.

37
38
39 **Q. Were the Companies' cost of coal for the Review Period reasonable?**

40 A. Yes. The Companies' cost of coal is reasonable and is below the mid-range, on a
41 cents/MMBtu basis, of other similar electric utilities in the region on an overall price
42 comparison which includes high, medium, and low-sulfur coal. The Companies

1 continue to follow the same sound coal procurement practices previously reviewed by
2 the Commission. The reported coal cost data for other local utilities, suggest that
3 demand and prices in the coal market impacted all utilities and that the prices the
4 Companies are paying for fuel are reasonable based on market conditions.

5 **Q. Were the Companies' fuel purchases and practices during the Review Period**
6 **reasonable?**

7 A. Yes. In my opinion, the Companies' fuel purchases and practices were reasonable
8 during the Review Period.

9 **Q. Does this conclude your testimony?**

10 A. Yes.

APPENDIX A

Delbert D. Billiter

Director, Coal Supply and By-Products Marketing
LG&E and KU Services Company
220 W. Main Street
Louisville, KY 40202

Work Experience

LG&E and KU

Director, Coal Supply and By-Products Marketing	Dec 2021 – Present
Manager, LG&E and KU Fuels	2017 – Dec 2021
Manager, Fuels Risk Management	2011 – 2017
Manager, Fuels Technical Services	2005 – 2011
Lead Mining Engineer	1996 – 2005

Arch Coal

Manager, Engineering and Preparation	1995 – 1996
Various engineering positions in IL, KY, and WV	1988 – 1995

Education

Bachelor of Science – Mining Engineering
University of Kentucky, 1988

Professional

Registered Professional Engineer in KY	1994 – Present
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Civic Activities

Leader, Middle School and High School Ministry Southeast Christian Church, 2019 – Present
Sponsor/Leader, Barret Middle School Fellowship of Christian Athletes, 2009 – 2020
Volunteer, Junior Achievement of Kentuckiana, 2008 – 2019
American Coal Council – Board of Directors, 2018 – Present
Waterways Council Inc. – Board of Directors, 2021 – Present

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**AN ELECTRONIC EXAMINATION OF THE)
APPLICATION OF THE FUEL ADJUSTMENT)
CLAUSE OF LOUISVILLE GAS AND ELECTRIC) CASE NO. 2022-00266
COMPANY FROM NOVEMBER 1, 2021 TO)
APRIL 30, 2022)**

**DIRECT TESTIMONY OF
CHARLES R. SCHRAM
DIRECTOR, POWER SUPPLY
KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

Filed: SEPTEMBER 30, 2022

1 **Q. Please state your name, position and business address.**

2 A. My name is Charles R. Schram. I am the Director – Power Supply for LG&E and KU
3 Services Company, which provides services to Kentucky Utilities Company (“KU”)
4 and Louisville Gas and Electric Company (“LG&E”) (collectively “the Companies”).
5 My business address is 220 West Main Street, Louisville, Kentucky 40202. A complete
6 statement of my education and work experience is attached to this testimony as
7 Appendix A.

8 **Q. Please describe your current job responsibilities.**

9 A. As Director – Power Supply, I have responsibility for the Companies’ economic joint
10 dispatch of their generating units to reliably meet customers’ energy demands, the
11 Companies’ sales of excess power when market conditions are favorable, and the
12 Companies’ purchases of power from the market during periods when low cost power
13 is available. The Power Supply business group also purchases natural gas that is used
14 to fuel the Companies’ gas fired generating units.

15 **Q. Have you previously testified before this Commission?**

16 A. Yes. I have previously testified before this Commission on several occasions,
17 including prior six-month and two-year Fuel Adjustment Clause review cases.

18 **Q. What is the purpose of your testimony?**

19 A. I am submitting this testimony in response to the Order entered in this proceeding by
20 the Commission on September 13, 2022 (“Order”), directing the Companies to file
21 written direct testimony on a number of topics relating to fuel procurement practices
22 during the six-month period ended April 30, 2022 (“Review Period”).

1 **Q. Please describe the Companies' business strategy for the procurement of natural**
2 **gas as a fuel source for the generation of electricity.**

3 A. The Companies procure natural gas for their Cane Run 7 ("CR7") combined cycle unit
4 as well as their simple cycle peaking units. CR7's high efficiency coupled with low
5 natural gas prices makes the unit competitive with coal-fired base load units. While
6 the higher-efficiency 640 MW CR7 unit operated as one of the Companies' lower cost
7 units based on the gas prices during the review period, CR7 is required to operate a
8 minimum amount to meet the projected baseload electric demand, regardless of gas
9 price. The Companies' fuel procurement strategy considers the increased use of natural
10 gas and the relationship between coal and natural gas volumes. The strategy establishes
11 guidelines for key metrics related to fuel procurement activities, risk elements and fuel
12 transportation.

13 **Q. Please describe the Companies' transportation of natural gas for electric**
14 **generation.**

15 A. Natural gas for CR7 and the simple cycle natural gas-fired units is transported from the
16 producing regions to the Companies' generating units by the natural gas interstate
17 pipeline system. Some units are served by a single interstate pipeline, and some are
18 served by two interstate pipelines. Appropriate amounts of firm natural gas
19 transportation capacity to support system reliability are procured on a long-term basis
20 for those units that are served by only one interstate pipeline.

21 **Q. How and when do the Companies purchase natural gas for their peaking**
22 **generation?**

1 A. The need for peaking generation is determined by weather, load, generation
2 availability, and market prices. The variability of these factors makes it difficult to
3 precisely forecast the specific days and hours when peaking generation is needed.
4 Because of this significant uncertainty regarding the volume of natural gas required,
5 the Companies continue to purchase physical natural gas for peaking generation on an
6 “as-needed” basis, typically in the day-ahead or intra-day spot market.

7 **Q. How do the Companies coordinate their procurement of natural gas for CR7 and**
8 **coal for electric generation?**

9 A. The minimum projected fuel requirement for gas and coal is first established during the
10 annual planning process and is used to guide procurement decisions. To manage the
11 potential swings in fuel requirements for coal units and CR7, procurement activities of
12 each fuel are coordinated through market solicitations that generally occur each quarter.

13 **Q. For the forward gas purchases during the review period, what was the**
14 **Companies’ experience with suppliers and the execution of the agreements?**

15 A. During the review period, the Companies made various purchases of up to 50,000
16 MMBtu/day of natural gas on a forward basis for delivery in the months of November
17 2021 through April 2022. The Companies experienced no issues with forward
18 purchases and deliveries of natural gas during the Review Period.

19 **Q. What operational steps have the Companies taken to ensure that adequate coal**
20 **inventories are maintained?**

1 A. The Companies have continued to take the actions described in their December 15,
2 2021 response to the Commission regarding winter preparedness¹. For example, some
3 generation has been shifted from coal to gas units and dispatch inputs consider the
4 replacement cost of coal.

5 **Q. Did the Companies comply with the fuel strategy guidelines and procurement**
6 **policies for natural gas purchases during the Review Period?**

7 A. Yes. The Companies complied with the fuel strategy guidelines and procurement
8 policies for natural gas purchases to support the fuel requirements for electricity
9 generation.

10 **Q. Please comment generally on the reasonableness of the Companies' natural gas**
11 **fuel procurement practices during the Review Period.**

12 A. The Companies' natural gas procurement practices are reasonable and sufficiently
13 flexible to allow the Companies to respond effectively to changes in market conditions
14 and support reliability.

15 **Q. Does this conclude your testimony?**

16 A. Yes.

¹ December 15, 2021 filing of Louisville Gas and Electric Company and Kentucky Utilities Company in response to the Commission's December 8, 2021 letter requesting information about LG&E and KU's winter preparedness.

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
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 foregoing testimony, and that 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 23rd day of September 2022.



Notary Public

Notary Public ID No. KYNP53381

My Commission Expires:

July 11, 2026

APPENDIX A

Charles R. Schram

Director, Power Supply
LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202
(502) 627-3250

Professional Experience

LG&E and KU

Director, Power Supply	2016 – Present
Director, Energy Planning, Analysis & Forecasting	2008 – 2016
Manager, Transmission Protection & Substations	2006 – 2008
Manager, Business Development	2005 – 2006
Manager, Strategic Planning	2001 – 2005
Manager, Distribution System Planning & Eng.	2000 – 2001
Manager, Electric Metering	1997 – 2000
Information Technology Analyst	1995 – 1997

U.S. Department of Defense – Naval Ordnance Station

Manager, Software Integration	1993 – 1995
Electronics Engineer	1984 – 1993

Education

Master of Business Administration
University of Louisville, 1995
Bachelor of Science – Electrical Engineering
University of Louisville, 1984
E.ON Academy General Management Program: 2002-2003
Center for Creative Leadership, Leadership Development Program: 1998

Civic Activities

The Housing Partnership – Board of Directors, 2017 – Present
Leadership Louisville – Bingham Fellows class of 2020

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APRIL 30, 2022)**

**DIRECT TESTIMONY OF
STUART A. WILSON
DIRECTOR – ENERGY PLANNING, ANALYSIS & FORECASTING
KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

Filed: SEPTEMBER 30, 2022

1 **Q. Please state your name and business address.**

2 A. My name is Stuart A. Wilson. My position is Director – Energy Planning, Analysis,
3 and Forecasting for LG&E and KU Services Company, which provides services to
4 Kentucky Utilities Company (“KU”) and Louisville Gas and Electric Company
5 (“LG&E”) (collectively “the Companies”). My business address is 220 West Main
6 Street, Louisville, Kentucky 40202. A complete statement of my education and
7 work experience is attached to this testimony as Appendix A.

8 **Q. What is the purpose of your testimony?**

9 A. I am submitting this testimony in accordance with the Order entered in this
10 proceeding by the Commission on September 13, 2022 (“Order”) directing the
11 Companies to file written direct testimony to address any changes in the wholesale
12 electric power market that significantly affected, or will significantly affect, the
13 Companies’ electric power procurement practices.

14 **Q. Were there any changes in the wholesale electric power market during the**
15 **period November 1, 2021 through April 30, 2022 that significantly affected the**
16 **Companies’ electric power procurement practices?**

17 A. Market power prices were significantly higher due to higher natural gas and coal
18 prices, but the Companies’ electric power procurement practices were not
19 significantly affected by any changes in the wholesale electric power market during
20 this period.

21 **Q. How have prices developed in the wholesale power market during the current**
22 **six-month period from November 1, 2021 through April 30, 2022 (“Review**
23 **Period”)?**

1 A. The average monthly electric power price during the Review Period was
2 \$56.19/MWh, compared to \$40.59/MWh during the previous six month review
3 period from May 1, 2021 through October 31, 2021.¹ Electricity prices rose
4 significantly due to increased fuel costs. Natural gas prices increased due to strong
5 power demand and record international exports. Coal prices also increased due to
6 scarcity of supply and transportation constraints. The Companies continue to look
7 for opportunities to purchase hourly power from the wholesale market when the
8 cost is lower than their own resources and when import of this power is supported
9 by adequate transmission availability and other operational parameters.

10 **Q. What changes do the Companies expect to occur in the wholesale power**
11 **market within the next two years that may significantly affect their electric**
12 **power procurement practices?**

13 A. The Companies do not expect changes in the wholesale power market in the next
14 two years that would significantly affect their power procurement practices.
15 Natural gas continues to set marginal on-peak electricity prices in the region.
16 International exports, specifically via liquified natural gas (“LNG”), have grown
17 significantly and will continue to be a competing source of natural gas demand for
18 the foreseeable future. Additionally, if coal supply and transportation issues persist,
19 demand for natural gas as a power generation fuel will be further supported.
20 Though ample, on-shore natural gas supplies have not yet increased proportionally
21 in response to these strong demand variables. However, if that were to change, a
22 moderation in fuel costs would be expected.

¹ Based on average monthly around-the-clock prices for PJM West Hub.

1 Regardless of the development of wholesale markets, electric transmission
2 constraints and congestion may at times limit the Companies' ability to import
3 power from the wholesale market to serve native load, highlighting the continuing
4 importance of the Companies' ability to serve customers with their own supply side
5 resources to ensure security of supply. The Companies will continue to look for
6 opportunities to purchase economy power when it is below their cost of production.

7 **Q. Does this conclude your testimony?**

8 **A. Yes.**

Appendix A

Stuart A. Wilson, CFA

Director, Energy Planning, Analysis, and Forecasting
LG&E and KU Services Company
220 West Main Street
Louisville, KY 40202
Telephone: (502) 627-4993

Previous Positions

Manager, Generation Planning & Analysis	October 2009 – April 2016
Manager, Sales Analysis & Forecasting	May 2008 – October 2009
Supervisor, Sales Analysis & Forecasting	Aug 2006 – April 2008
Economic Analyst	Aug 2000 – July 2006
Compensation Analyst	Aug 1999 – July 2000
Business Analyst	June 1997 – July 1999

Civic Activities

Barren Heights Christian Retreat – Board of Directors: 2015 – Present
Big Brothers Big Sisters of Kentuckiana – Board of Directors: 2017 – Present

Professional Memberships

CFA Society of Louisville

Education/Certifications

E.ON Emerging Leaders Program: 2004-2006

CFA Charterholder: September 2003

LG&E Energy Leadership Development Program: 1997-2002

Master of Business Administration;
Indiana University, May 1997

Master of Engineering in Electrical Engineering;
University of Louisville, December 1995

Bachelor of Science in Electrical Engineering;
University of Louisville, December 1995