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Mr. Jeff DeRouen, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601

April 8, 2015

RE: ***Louisville Gas and Electric Company's Proposed Renewal and Modification of its Performance-Based Ratemaking Mechanism***
- Case No. 2014-00476

Dear Mr. DeRouen:

Enclosed please find and accept for filing Louisville Gas and Electric Company's ("LG&E") Responses to the Commission Staff's First Request for Information in the above referenced matter.

Should you have any questions regarding the enclosed, please contact me at your convenience.

Sincerely,

Robert M. Conroy

cc: Parties of Record

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **J. Clay Murphy**, being duly sworn, deposes and says that he is Director – Gas Management, Planning, and Supply for Louisville Gas and Electric 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.

J. Clay Murphy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 7th day of April 2015.

(SEAL)
Notary Public

My Commission Expires:

SUSAN M. WATKINS
Notary Public, State at Large, KY
My Commission Expires Mar. 19, 2017
Notary ID # 485723

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Pamela Lee Jaynes**, being duly sworn, deposes and says that she is Gas Supply Manager for Louisville Gas and Electric 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.

Pamela Lee Jaynes

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 7th day of April 2015.

(SEAL)
Notary Public

My Commission Expires:

SUSAN M. WATKINS
Notary Public, State at Large, KY
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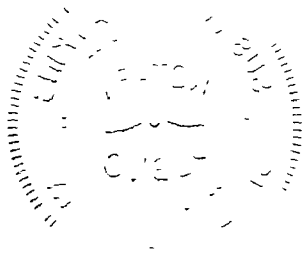

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

LOUISVILLE GAS AND ELECTRIC COMPANY'S	)	
PROPOSED RENEWAL AND MODIFICATION OF ITS	)	CASE NO.
PERFORMANCE-BASED RATEMAKING MECHANISM	)	2014-00476

RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY TO COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION DATED MARCH 25, 2015

FILED: April 8, 2015

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
Dated March 25, 2015

Case No. 2014-00476

Question No. 1

Responding Witness: J. Clay Murphy

Q-1 Explain whether cash-outs paid by Firm Transportation Service customers, Operational Flow Order penalties, and Action Alert penalties affect the gas cost savings that flow through LG&E's Performance-Based Ratemaking ("PBR") mechanism

A-1. Cash-out charges, Operational Flow Order ("OFO") Charges, Action Alert ("AA") charges and other balancing charges incurred pursuant to LG&E's gas transportation services under Rate FT and Rider TS-2 are not reflected in the calculation of gas costs savings or expenses determined pursuant to LG&E's Performance-Based Ratemaking ("PBR") mechanism These charges are, however, reflected in the calculation of LG&E's Gas Supply Clause mechanism.

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
Dated March 25, 2015

Case No. 2014-00476

Question No. 2

Responding Witness: J. Clay Murphy / Pamela Lee Jaynes

Q-2 Refer to the first two full sentences on page 3 of the Report on LG&E's Gas Supply Cost Performance-Based Ratemaking Mechanism ("Report") Provide a practical example of each kind of risk assumed by LG&E, along with the steps LG&E takes to manage each kind of risk

a. Refer to page 15 of the Report The first complete sentence at the top of the page reads as follows "Given the risk levels inherent in LG&E's gas supply cost PBR mechanism, LG&E is proposing a more balanced sharing of risk and rewards " Identify and describe in detail the "risk levels inherent in LG&E's gas supply PBR mechanism" referenced in the sentence.

b Explain how the risks associated with LG&E's gas supply PBR mechanism have changed/increased since its filing in Case No. 2009-00550,[1] in which it proposed no changes to the sharing ratios previously approved for its gas supply PBR mechanism.

A-2 On page 3 of its Application, LG&E sets forth certain risks it has assumed in order to achieve savings under its gas supply cost Performance-Based Ratemaking ("PBR") mechanism Those mentioned include contracting risks, storage management risks, supply management risks, transportation management risks, and credit risks

While LG&E has assumed additional risks in order to generate savings under its PBR mechanism, LG&E has not assumed those risks without first determining that it can manage those risks. LG&E's paramount goal, irrespective of any incentive mechanism is to ensure reliable service to customers. LG&E recognizes that it has an over-arching obligation to reliably serve its retail gas customers The costs that LG&E would incur to correct any failure to serve its customers would substantially outweigh any savings that might be produced under the PBR mechanism.

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[1] Case No 2009-00550, *Request of Louisville Gas and Electric Company for Modification and Extension of Its Gas Supply Cost Performance-Based Ratemaking Mechanism* (Ky PSC Apr 30, 2010)

LG&E is willing to take on manageable risks that can yield benefits within the reasoned parameters of the PBR mechanism Opportunities are not pursued for which the corresponding risks are not both manageable and commensurately rewarded Because the PBR mechanism aligns the interest of LG&E and its customers, both benefit from the assumption of manageable risks

In pursuit of least cost acquisition, LG&E's PBR mechanism encourages it to actively respond to changing market conditions and explore alternate gas supply and pipeline transportation purchase and sales opportunities While many of LG&E's gas supply strategies and actions to achieve savings under the PBR mechanism have proven successful, some have not Additionally, there is the very real risk that strategies and activities that are currently successful may be less valuable in the future as the gas market continues to evolve See LG&E's response to Question No 2(b) for a discussion of recent marketplace changes

Following are examples of each kind of risk assumed by LG&E under the PBR mechanism and the contracting, operational, or other strategies used by LG&E to manage those risks

Contracting Risks·

Contracting risks are the risks that LG&E assumes when it enters into gas supply or pipeline transportation agreements which enable LG&E to achieve savings under the PBR mechanism There is a risk that such agreements will not create savings and, instead, create expenses.

When LG&E evaluates and enters into the gas supply agreements in its gas supply portfolio, it must determine how best to price the required gas supply agreements in relation to the benchmarks incorporated in the Gas Acquisition Index Factor ("GAIF") component of the PBR mechanism. The benchmarks incorporate both first-of-month and mid-month price indices When LG&E determines its supply agreement pricing parameters, it is creating contracting risk because the actual daily market prices that will occur in each month of the PBR Year cannot be known at the time the gas supply portfolio is assembled. LG&E will not know the daily prices used to determine the monthly benchmark until the last day of each month. Similarly, LG&E cannot know if its supply arrangements will result in savings or expenses

In determining the portion of gas supply volumes that should be priced at either a first-of-month or a mid-month price, LG&E assumes risk with respect to the reservation fees incurred Contracts that are priced at a first-of-month index have significantly higher reservation fees than contracts priced at mid-month (daily) indices When determining the volumes to price using a first-of-month index, LG&E must weigh the risk of creating expenses under the Historical Reservation

Fee ("HRF") component of the GAIF against the potential reward of purchasing at a first-of-month index when such purchases create savings (See LG&E's response to Question No. 5 regarding the HRF benchmark.) LG&E attempts to mitigate this supply contracting risk by using a portfolio approach in contracting for its gas supplies. The portfolio must be designed to meet a variety of load and market conditions with the goal of maintaining reliable service and producing least cost results

LG&E also manages contracting risks by relying upon a portfolio of gas transportation arrangements This portfolio helps to mitigate risk by enabling LG&E to meet a variety of load and market conditions with the goal of maintaining reliable service and producing least cost results

In the case of contracting for pipeline transportation services, LG&E assumes contracting risk through the negotiation of discounts with interstate pipeline transportation providers In securing these discounts, LG&E evaluates available pipeline service options (including service from other pipelines or capacity from third-parties)

LG&E must consider the limitations that the pipeline may place on the release of capacity when negotiating discounts. For example, under current discount arrangements, to the extent that LG&E releases its discounted firm transportation capacity to a replacement shipper, that replacement shipper must deliver gas to LG&E's primary delivery points or LG&E will lose its discount for that portion of its capacity for the duration of the release This delivery restriction greatly limits LG&E's ability to release capacity at rates competitive to other releasers of capacity. LG&E assumes the risk that the value of these transportation discounts will outweigh the lost opportunity to release capacity and secure capacity release revenues

LG&E has always participated in federal energy regulatory proceedings affecting its pipeline transporters and the services they provide. However, LG&E's PBR mechanism has heightened its interest in these proceedings because regulatory changes can affect gas supply costs and LG&E's performance under the PBR mechanism. On a going-forward basis, LG&E assumes certain transportation contracting and management risks arising out of potential changes in regulation by the Federal Energy Regulatory Commission ("FERC")

Storage Management Risks

Storage management risk is the risk that LG&E assumes in managing its storage withdrawal and injection patterns and schedules in such a way as to ensure that reliability is not jeopardized and (to the extent possible) savings achieved

Prior to the PBR mechanism, LG&E did not assume risks associated with its management of storage injection and withdrawal schedules, except to adhere to contractual requirements and good operating practices. However, under the PBR mechanism, LG&E assumes the additional risk that when design storage field deliverability is insufficient to meet system gas loads, LG&E will be required to make purchases even though the costs of those purchases may exceed the PBR benchmarks Conversely, design storage field parameters may require LG&E to forego purchases in order to ensure that storage field integrity is maintained, even though the costs of those foregone purchases may be below the PBR benchmarks LG&E's Gas Supply and Gas Control departments carefully coordinate their efforts to manage storage field parameters and design inventory levels in the context of the PBR mechanism

Supply Management Risks

Supply management risk is the risk that LG&E assumes in aggressively managing its supplies to prevent expenses from being generated under the PBR mechanism Supply management risk also reflects the exposure that LG&E assumes when it enters into supply agreements that offer the potential to generate savings under the PBR mechanism but may challenge its ability to manage supplies

LG&E generates savings under the GAIF by successfully managing supply options available to it in such a way that it can successfully out-perform the benchmarks incorporated in the GAIF. LG&E aggressively acquires, manages and dispatches its gas supplies in order to take advantage of price movements LG&E closely monitors the daily gas prices to determine if there is an upward or downward price trend. To determine price trends, LG&E monitors *NYMEX* transactions, prices posted in *Platts Gas Daily*, and prices quoted by suppliers. Nevertheless, under the PBR mechanism, LG&E assumes the risk that it may not be able to make purchases at less than the applicable PBR benchmarks

LG&E increases its supply management risks by minimizing the amount of supply flexibility that it has under gas supply contracts that are priced at a first-of-month index in an effort to reduce the reservation fees associated with such contracts These supply reservation fees are benchmarked under the HRF component of LG&E's PBR mechanism LG&E must carefully manage the limited flexibility it has under these contracts to respond to price movements in an effort to create savings under the GAIF, and yet at the same time ensure that it has adequate contract flexibility to reliably serve its retail gas customers. LG&E assumes the risk that gas prices may move in such a way that LG&E will be unable to achieve savings, and instead incur expenses

LG&E increases its supply management risks by purchasing fixed quantities of gas at constrained receipt points. By purchasing a portion of its gas supply at these constrained points, LG&E can avoid the payment of reservation fees and

may be able to purchase the natural gas at some discount to the index price However, LG&E mitigates the risk that it may not be able to take this below-index gas by carefully evaluating its system operations and gas loads LG&E also gives up the ability to purchase other quantities of gas should the market price fall below the contract price for such gas Even if gas prices fall to a level below the contract price, LG&E must take this gas. The discount achieved by purchasing this supply has declined in recent years because pipeline expansion projects by Texas Gas Transmission LLC ("Texas Gas") have eased current restrictions on that portion of its system Further expansion projects may result in LG&E being unable to secure this gas at a discount LG&E assumes the risk that purchasing opportunities may not be available to achieve savings under the PBR mechanism.

Transportation Management Risks:

Transportation management risk is the risk that LG&E assumes in managing its transportation agreements in a low cost manner that generates savings under the Transportation Index Factor ("TIF") component of the PBR mechanism LG&E assumes transportation management risk through the release of pipeline capacity and in the dispatching and management of pipeline services

LG&E assumes transportation management risk through the release of pipeline capacity not needed for system loads LG&E manages this risk by ensuring that adequate pipeline capacity is retained in order to maintain reliable service for retail customers LG&E has sought to increase the array of potential replacement shippers, actively searches for replacement shippers, and negotiates the highest possible price for released capacity. Despite these activities, LG&E has little capacity that can be released without potentially adverse impacts on system reliability. When excess capacity has been available, LG&E has often found that there are no interested takers at any price, often due to the delivery point restrictions discussed above under "Contracting Risks". See LG&E's response to Question No 4

LG&E assumes transportation management risk in choosing which pipeline service to dispatch LG&E analyzes its options in order to dispatch the least cost transportation arrangement with the goal of achieving savings under the PBR mechanism However, operational considerations may make it infeasible to dispatch the least cost transportation contract LG&E assumes this risk under the PBR mechanism

Credit Risks

Credit risk is the risk that LG&E assumes should the counterparty not pay LG&E or otherwise be unable to perform Credit risk can occur when LG&E releases capacity or when it makes an off-system sale

LG&E assumes credit risk when it releases (sells) pipeline capacity in that the buyer may not pay the pipeline for the capacity, and as a result, LG&E will not receive a credit on its pipeline invoice LG&E must rely on the pipeline to determine if entities that participate in the capacity release process are creditworthy LG&E cannot impose credit requirements on these counterparties that are in addition to, or that are different from, those imposed by the pipeline under its FERC tariff However, LG&E does mitigate counterparty credit risk by requiring counterparties (replacement shippers) to have a capacity release agreement in place with LG&E. This agreement helps LG&E manage the risk that it may not recover from the replacement shipper the capacity release revenues that the replacement shipper failed to pay to the pipeline by establishing privity of contract between LG&E and the replacement shipper should LG&E need to seek damages

In the last few years, LG&E has experienced few opportunities to make off-system sales of natural gas that accrue to the benefit of customers However, when off-system sales opportunities do arise, credit risks must be monitored and managed For example, in making off-system sales of natural gas, LG&E is essentially extending credit to a counterparty assuming that it will pay LG&E for the gas sold to it by LG&E During the review period, LG&E generated about $260,000 in net revenue savings under the Off-System Sales Index Factor ("OSSIF") component of the gas supply cost PBR mechanism In order to achieve that level of savings, LG&E had to extend credit to counterparties in an amount equal to the amount of the sales which was about $3,100,000.

LG&E takes several actions to mitigate credit risk when it makes an off-system sale There are credit procedures in place to ensure that each off-system sales transaction is with a creditworthy counterparty LG&E actively reviews the credit ratings of potential counterparties in order to establish a credit limit for each. Off-system sales opportunities can be limited by creditworthiness.

a. As explained in LG&E's response to Question No. 2 above, the overriding risk to LG&E associated with its PBR mechanism is that it will incur expenses. Absent the PBR mechanism, that fundamental risk would not exist. In exchange for undertaking this fundamental risk, which would otherwise be entirely borne by customers, LG&E is rewarded for successfully managing those risks and achieving savings. Those savings are shared between the Company and its customers The Commission acknowledged that LG&E's PBR mechanism was an important tool in producing least cost gas acquisition for customers "Because of the incentives built into the PBR, it is reasonable to conclude that LG&E's actual gas costs were less than what they would have been under traditional regulation "[2] This fundamental risk of incurring expenses under the mechanism is

[2] Order in Case No 2001-00017, *Modification to Louisville Gas and Electric Company's Gas Supply Clause to Incorporate an Experimental Performance Based Ratemaking Mechanism*, dated October 26, 2001, at p 4

exacerbated by the risks associated with the activities that LG&E undertakes to perform at least as well as the benchmarks included in the PBR mechanism The commission acknowledged these risks in its Order in Case No 2009-00550 when it stated that "LG&E has been able to demonstrate that it has pursued more aggressive gas purchasing measures as a result of the mechanism "[3]

Importantly, the comprehensive design of LG&E's gas supply PBR mechanism includes additional elements of risk when compared to the PBR mechanisms of either Columbia Gas of Kentucky ("Columbia") or Atmos Energy ("Atmos") Despite a higher level of risk, LG&E's current PBR mechanism includes a sharing structure that results in a lower overall sharing of savings than do the PBR mechanisms of either Columbia or Atmos LG&E has proposed to modify the sharing structure under its PBR mechanism so as to bring LG&E's sharing structure into conformity with those of other LDCs in Kentucky.

LG&E's sharing structure is less favorable than those of Columbia and Atmos. LG&E's sharing structure is as follows a 25/75 Company/Customer sharing for all savings (and expenses) up to 4.5% of the benchmarked gas costs, savings and (expenses) in excess of 4 5% of the benchmarked gas costs are shared 50/50 As a result of the Commission's recent Order in Case No. 2014-00350, Columbia's sharing structure has been changed to match that of Atmos as follows a 30/70 Company/Customer sharing for all savings and (expenses) up to 2% of the benchmarked gas costs; savings and (expenses) in excess of 2% of the benchmarked gas costs are shared 50/50 [4] LG&E is proposing a sharing structure that would match those of Columbia and Atmos to more appropriately balance the sharing of risks and rewards

As discussed below, LG&E's PBR mechanism includes at least three design elements that make its benchmarking more complete (and therefore includes more elements of risk). These elements include (1) reservation fee benchmarking ("HRF"), (2) benchmarking of city-gate deliveries under the Delivery Area Index ("DAI"), and (3) supply zone benchmarking elements ("SZFQE%")

LG&E's gas supply cost PBR mechanism is more comprehensive because the reservation fees paid by LG&E are benchmarked in its PBR mechanism LG&E's supply reservation fees are <u>not</u> "netted out" or excluded from the mechanism as

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[3] Order in Case No 2005-00031, *Modifications to Louisville Gas and Electric Company's Gas Supply Clause to Incorporate an Experimental Performance-Based Ratemaking Mechanism*, dated October 26, 2001, at p 5, and Order in Case No 2009-00550, Request of *Louisville Gas and Electric Company for Modification and Extension of Its Gas Supply Cost Performance-Based Rate-Making Mechanism*, dated October 26, 2001, at p 3

[4] Order in Case No 2014-00350, Application of Columbia Gas of Kentucky, Inc to Consolidate and Convert Its Gas Cost Incentive Mechanism and Its Off-System Sales and Capacity Release Revenue Sharing Mechanism into a *Performance-Based Ratemaking Mechanism*, dated March 27, 2015, at pp 4-5

incorrectly stated by Columbia in Case No. 2014-00350.[5] LG&E's reservation fees are benchmarked under the HRF component of the PBR mechanism by comparing the reservations fees for the current PBR Year to the average of the reservation fees from the previous two PBR Years. If the reservation fees are higher for this year than the average of the prior two years, then expenses are incurred; if reservation fees are lower than the average of the prior two years, then savings are achieved. Columbia excludes supply reservation fees from its PBR mechanism.[6] Atmos apparently does not benchmark supply reservation fees either.[7] Including supply reservation fees in its PBR mechanism increases LG&E's risk of incurring expenses under the PBR mechanism. LG&E has experienced expenses under the HRF component of its PBR mechanism in nine of LG&E's seventeen PBR Years. See LG&E's response to Question No. 5.

LG&E's gas supply cost PBR mechanism is also more comprehensive than Columbia's PBR mechanism because it benchmarks all purchases including gas supplies delivered to the city-gate under the Delivery Area Index ("DAI"). See also LG&E's response to Question No. 6. Columbia excludes purchases made at Columbia's city-gate from its PBR mechanism.

LG&E's PBR mechanism reflects its contractual ability to purchase natural gas in a variety of supply areas by applying the SZFQE%. This design element, which is not included in Columbia's or Atmos' PBR mechanism better encourages LG&E to purchase natural gas in the lowest cost supply area. Please see an example of the appropriately constructed incentive provided by the SZFQE% in LG&E's response to Question No. 7.

b. Risk levels have changed since LG&E requested the renewal of its gas supply cost PBR mechanism in Case No. 2009-00550. Some risks have increased and new risks and challenges have been identified as a result of a gas market in transition. Ongoing market changes and developments will continue to increase risks under the PBR mechanism.

Some changes that have occurred since LG&E received approval of the PBR mechanism in Case No. 2009-00550 include the following:

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[5] Application in Case No. 2014-00350, *In the Matter of the Application of Columbia Gas of Kentucky, Inc to Consolidate and Convert Its Gas Cost Incentive Mechanism and Its Off-System Sales and Capacity Release Revenue Sharing Mechanism Into a Performance-Based Rate Mechanism*, dated September 30, 2014, at p. 32.

[6] Ibid. at p. 32, and Columbia's *Response to Staff's Initial Request for Information*, dated November 20, 2014, Question No. 5.

[7] Columbia's Application at p. 32, Atmos Energy Corp. Tariff, PSC Ky. No. 2, Original Sheet No. 19, which states that Atmos benchmarks "commodity costs," and pursuant to Atmos' "Gas Cost Adjustment Rider GCA" found on Original Sheet No. 16, Atmos' "gas supplier reservation charges" are listed under item (2) as [e]xpected non-commodity costs."

- supply availability
- supply patterns
- demand levels and patterns
- regulation

Changes in Supply Availability:

Gas markets are undergoing perhaps their most significant change since pipelines exited the merchant function in 1993 as the result of FERC Order 636 The change is being driven largely by what is commonly called the "shale gas revolution."[8] New technology is increasing the availability of natural gas As important is the non-traditional location of these new gas supplies Tudor Pickering Holt has succinctly stated that "[n]atural gas and liquids growth in the Marcellus and Utica shales will transform the Northeast from a demand center to a low-cost supplier by 2020"[9] These changes in the marketplace create uncertainties and increase gas procurement and supply management risks.

An increase in gas supply availability has led to a decrease in natural gas prices [10] Increased supply can translate into lower gas price volatility Decreased volatility means less opportunity to achieve and capture savings for customers and increases LG&E's risk under the PBR mechanism.

A key component of LG&E's gas supply portfolio are the firm supply contracts in place with suppliers that allow LG&E to call upon gas at a first-of-month index price These kinds of supply arrangements allow for volume change flexibility to ensure that LG&E can meet its firm load requirements and mitigate the impact of increasing prices particularly during the Winter Season Reservation fees associated with these supplies have increased substantially following the Polar Vortex Winter of 2013/2014. Increases in supply reservation fees increase the risk of incurring expenses under the PBR mechanism.

Additionally, fewer suppliers appear willing to enter into these kinds of transactions since the Winter of 2013/2014 and the implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") by the Commodities Futures Trading Commission ("CFTC") as discussed below The

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[8] "Marcellus production tops Saudi Arabia, China," *Platts Gas Daily*, March 12, 2014, pp 1 and 7-8, and "Marcellus leads production growth EIA," *Platts Gas Daily*, January 14, 2015, pp 1 and 4

[9] ' Appalachia market 'turbulent' until 2016 TPH," *Platts Gas Daily*, January 30, 2014, pp 1 and 7

[10] "Marcellus production leaps past 15 Bcf/d EIA," *Platts Gas Daily*, August 6, 2014, pp 1 and 5, "Swelling Northeast Supply Cited for Lowering Gas Price Outlooks," *Natural Gas Week*, September 15 2014, pp 2-3, "NGSA forecasts lower winter gas prices" *Platts Gas Daily*, October 2, 2014, pp 1, 5, 7, and 8, "EIA Strong US NatGas Production Will Continue to Pull Down Prices," *Natural Gas Week*, January 19, 2015, pp 6, "Record supply outpaces higher demand in Jan," *Platts Gas Daily*, February 9, 2015, pp 1, 7, and 9-10, and "Unprecedented US Supply Growth Drags on NatGas Prices in 2015," *Natural Gas Week*, February 16, 2015, pp 4-5

potential unavailability of these kinds of gas supply arrangements and their potential costs expose LG&E to increased supply management risks.

Current energy price levels have strained the creditworthiness of some gas suppliers and producers One credit rating agency expects high-yield bond rates for the U.S. exploration-and-production sector to increase as bankruptcy filings caused by changes in shale gas economics combined with lower oil prices take their toll.[11] As a result, the broader energy sector's default rate is expected to increase in 2015 and potentially rise further in 2016 and 2017 According to Fitch Ratings, Inc , the energy sector's credit profile has "deteriorated considerably" over the past two years. Moody's Investors Service added that "recent downgrades in the US oil and gas sector has helped to make it the single biggest component of Moody's speculative-grade corporate ratings list "[12] A decline in counterparty creditworthiness could impact not only the number of creditworthy and reliable suppliers active in the marketplace but also the kinds of deals available to buyers such as LG&E This decrease in counterparty creditworthiness increases LG&E's risk under the PBR mechanism.

Changes in Supply Patterns:

Since LG&E's last PBR renewal filing in Case No 2009-00550, a fundamental shift in gas pipeline flows has begun and is continuing to develop [13] Gas in the U S traditionally flowed from supply sources in the Gulf Coast areas to delivery points in the Northeast. These south-to-north gas flows, however, are on the decline.[14] Shale plays like those in the Marcellus and Utica areas are transforming the Northeast from a market area into a supply area This shift in the gas market is posing challenges for long-haul pipelines as demand centers to which they once delivered gas are now finding gas supplies closer to home.

As a result, pipelines are increasingly considering and developing projects to move gas supplies in the Northeast to markets in the Midwest and South, and even the Gulf Coast [15] Pipelines are also taking gas pipeline capacity out of service (abandonment) and selling or repurposing this capacity to move natural gas liquids to processing plants in the Gulf Both actions have the potential to decrease LG&E's ability to achieve transportation cost savings under its PBR mechanism by decreasing excess pipeline capacity that might otherwise be available at a discount

In the past, Texas Gas and Tennessee Gas Pipeline Company ("Tennessee") have been willing to discount certain pipeline services as the result of excess pipeline

[11] "Fitch sees sharp rise in E&P default rates," *Platts Gas Daily*, March 30, 2015, pp 1, 6, 8, and 9
[12] "Oil, gas sector tops speculative-grade list," *Platts Gas Daily*, March 31, 2015, pp 1 and 7
[13] "Marcellus has gas pipelines 'retooling ' Moody's" *Platts Gas Daily*, May 14, 2014, pp 1 and 4
[14] "NE shales challenge traditional pipe flows," *Platts Gas Daily*, July 1, 2014, pp 1 and 3-4
[15] Ibid

capacity on their respective systems To the extent that either Texas Gas or Tennessee repurposes or abandons a portion of its pipeline, the result will be less available capacity, and therefore, less need to discount pipeline services For example, the following projects are under development:

- In September 2014, Texas Gas requested in Docket CP14-553 that FERC approve the construction and operation of the Ohio-Louisiana Access Project to move gas from the Marcellus and Utica shales to markets in the Midwest and South effective June 1, 2016 LG&E successfully participated in this capacity project in order to gain more secure access to gas supplies from the Marcellus and Utica supply areas (as LG&E saw a potential for diminution in its ability to use the backhaul capabilities embedded in its current forwardhaul transportation arrangements) However, this capacity was not available to participants such as LG&E under discounted arrangements

- In February 2015, Tennessee requested that FERC approve in Docket CP15-88 the abandonment by sale to Utica Marcellus Texas Pipeline LLC ("UMTP") of 964 miles of mainline facilities in Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, and Ohio UMTP proposes to convert this mainline capacity from natural gas transportation service to natural gas liquids transportation service. The ability to move these natural gas liquids to market (for example, through natural gas pipelines converted to liquids lines) is seen as one of the many infrastructure requirements needed to expedite the development of Marcellus and Utica shale gas production. Tennessee will continue to meet current firm customer commitments, but the availability of incremental firm services will be subject to the availability of capacity as the result of capacity turn-back from other capacity holders

Each of these projects has the potential to impact LG&E's performance under either the TIF or GAIF component of its PBR mechanism Although the Texas Gas capacity project is not discounted, it is expected to provide firm access to potentially competitively priced gas supplies. There is risk that the project will not be approved by FERC. If the project is approved, there is the risk that the supply coming from the Marcellus and Utica regions will not be favorably priced compared to other supply areas The Tennessee project will decrease the amount of excess capacity on this pipeline and may reduce Tennessee's desire (or need) to discount any remaining capacity.

Changes in Demand Levels and Patterns:

Accompanying, and in part as the result of, this new gas supply availability are new demands in the marketplace for natural gas These new demands for natural

gas include gas as a vehicle fuel, such as compressed natural gas ("CNG"),[16] gas as an electric generation fuel,[17] and U.S gas exports in the form of liquefied natural gas ("LNG").[18] LNG exports in particular have the potential to cause shifts in pipeline flow patterns from north to south which are discussed above. LG&E will compete with these new demands for available gas supply and pipeline capacity. Increased demand for pipeline capacity from other gas using sectors could increase the risk that LG&E will be unable to secure discounted pipeline capacity that achieves savings under the PBR mechanism.

Recent weather patterns have exacerbated the growing pains of a marketplace adjusting to new gas supplies in new locales and at the same time struggling to develop infrastructure to move gas to market and serve new loads Weather patterns during the last two Winter seasons, sometimes referred to as the "Polar Vortex," produced record demands for natural gas [19] A marketplace that is already challenged by a lack of infrastructure to move gas to market has been challenged further by two back-to-back severe Winters. This has increased demand by market participants for firm supply and pipeline capacity. For example, Texas Gas pipeline capacity available to meet gas needs last Winter fell significantly from prior Winters. Greater demand for pipeline capacity to meet higher demands for gas could adversely impact LG&E's ability to secure discounted pipeline capacity.

Changes in Regulation:

Since Dodd-Frank was passed in 2012, and in the absence of regulatory guidance from the CFTC, natural gas industry participants have been struggling to agree and determine if forward contracts with embedded volumetric optionality (typical of the kinds of supply agreements used by LG&E and other local distribution companies) should be classified as forward contracts, swaps, or swaps that meet the Trade Option exemption If the classification selected for a transaction is a swap (even if it meets the Trade Option exemption), significant new CFTC reporting requirements are required by both counterparties Additional reporting requirements and concerns that penalties will be imposed for incorrectly reported transactions, appears to have suppressed the market for these types of

[16] "Locomotive switch called demand 'milestone,'" *Platts Gas Daily*, January 16, 2014, pp 1, and 3-4, "LNG catching on as marine fuel in US market," *Platts Gas Daily*, February 25, 2014, pp 1 and 4, and "Industry needs to focus on trucks, trains Analyst," *Platts Gas Daily*, August 7, 2014, pp 1 and 6-7

[17] "Gas use seen rising 3-10 Bcf/d under EPA rule," *Platts Gas Daily*, June 2, 2014, pp 1, 4, 6, and 7, "Gas' share of power generation to surge Study," *Platts Gas Daily*, July 30, 2014, pp 1 and 7, "Gas demand to rise by 5 Bcf/d as coal exits S&P," *Platts Gas Daily*, October 1, 2014, pp 1 and 4, and "Power burn to lead gas demand growth in 2015," *Platts Gas Daily*, January 9, 2015, pp 1, 5-6, and 8

[18] "'Tectonic shift' seen with US as net gas exporter," *Platts Gas Daily*, January 10, 2014, pp 1 and 4, "EIA underestimating LNG export growth Report," *Platts Gas Daily*, March 3, 2014, pp 1 and 3-4, and "DOE eyes revamped export approval process," *Platts Gas Daily*, May 30, 2014, pp 1, 5, and 7-8

[19] "Polar vortex 'stressed' gas, power grids FERC," *Platts Gas Daily*, January 17, 2014, pp 1 and 3-4, and "Winter 2014-2015 sets more records," *Platts Gas Daily*, April 7, 2015, pp 1 and 5-6

transactions. Decreased availability of commodity supply arrangements that enable LG&E to call upon gas at an established first-of-month price will increase LG&E's risks under the PBR mechanism by limiting LG&E's ability to manage supply risk

In December 2014, AGA reported that "its members continue to experience higher contracting costs in light of the confusion surrounding the seven-factor analysis for forward contracts with embedded volumetric optionality They note a drop-off in peaking supply contract offerings that provide for 'firm' delivery, because of counterparties' concern that these nonfinancial contracts giving utilities the right, but not the obligation, to take physical natural gas delivery, may nevertheless be viewed as swaps "[20] In 2015, the CFTC modified the seven-factor analysis in an effort to reduce the confusion generated by Dodd-Frank However, there continues to be risk going forward that natural gas industry participants will continue to disagree on the classification of transactions, and therefore, the reporting of these transactions As a result, suppliers have constricted their participation in the market for these types of transactions

Part 46 of the regulations setting forth rules and regulations for the reporting of swaps under Dodd-Frank has also discouraged LG&E from entering into transactions that it previously used to generate savings under the PBR mechanism Prior to Dodd-Frank, LG&E used its storage injection flexibility to take advantage of creative Summer Season supply options. For example, under these kinds of arrangements, LG&E could purchase some gas supplies that allowed the supplier to recall (interrupt) the gas This recallable gas could typically be purchased at less than market prices. Conversely, LG&E could also purchase gas supplies that allowed the supplier the limited right to "put" (or sell additional volumes of gas). Supply agreements with "recall" and "put" rights can help buyers purchase gas at below market prices, but may continue to be unavailable to LG&E as the result of Dodd-Frank reporting requirements. Decreased supply pricing options will adversely impact LG&E's ability to manage supply risks and limit LG&E's ability to achieve savings under the PBR mechanism

Another potential uncertainty created by the unintended results of regulation can be found in FERC's Notice of Proposed Rulemaking ("NOPR") in RM14-2 which has suggested changes to the timing of the start of the gas day [21] Where the "gas day" currently starts at 10 00 AM, FERC has suggested that a more appropriate time for the start of the "gas day" might be 4 00 AM FERC sees a change in the start of the gas day as a potential resolution to its frustration regarding the lack of robust intraday gas markets compared to next-day gas markets, ratable weekend

[20] AGA Comments on "Forward Contracts with Embedded Volumetric Optionality, CFTC Proposed Interpretation, RIN Number 3038-AE24, December 22, 2014

[21] "FERC proposes altering gas, electric scheduling," *Platts Gas Daily*, March 21, 2014, pp 1 and 4

gas trading, and illiquid weekend and holiday gas trading [22] While the gas and electric industry participants could not reach a consensus on a potential alternate start to the gas day, many LDCs are concerned that changing the start of the gas day will affect how hourly storage and pipeline flexibility is utilized at the end of the gas day to meet peak hour loads in the morning Moving the morning peak from the end of the gas day to the start of the gas day could result in sub-optimal storage field inventory and pipeline supply management. The uncertainty created by this NOPR adds a new and unknown element of risk into the gas marketplace and how gas might be procured and managed. Such a change could adversely impact the ability to achieve savings under the PBR mechanism

In the last several years FERC has also increased its compliance monitoring activities [23] The purpose of this compliance monitoring is to promote a more transparent and efficient marketplace. However inadvertently, a number of parties have been caught up in FERC investigations. The potential of a FERC investigation has caused market participants, for example shippers releasing capacity, to proceed with the utmost caution in the capacity release market in order to ensure full and complete compliance with all FERC guidelines. Decreased capacity release activity will decrease LG&E's ability to achieve savings under its PBR mechanism

[22] "FERC hears proposal to overhaul gas trading," *Platts Gas Daily*, April 4, 2014, pp 1, and 3-5
[23] "FERC to boost enforcement, mull trader licensing," *Platts Gas Daily*, January 8, 2014, pp 1 and 4-5

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
Dated March 25, 2015

Case No. 2014-00476

Question No. 3

Responding Witness: J. Clay Murphy

Q-3 Refer to the second full paragraph on page 3 of the Report. State whether LG&E expects its customers to realize greater benefits as a result of improved performance due to the greater sharing level it proposes to retain If so, identify and describe in detail any of these greater benefits

A-3. LG&E cannot address whether customers will "realize greater benefits as a result of improved performance due to the greater sharing level" Future performance under the PBR mechanism is not knowable and is dependent (at least in part) upon market conditions as they unfold

LG&E has addressed the goals of the mechanism in producing least cost results for customers, the construction of the PBR mechanism, and the risks inherent in the PBR mechanism

As explained in LG&E's response to Question No 2, LG&E believes that it may be required to take on more risk to maintain current levels of savings given the significant market changes that are occurring and have the potential to occur.

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
Dated March 25, 2015

Case No. 2014-00476

Question No. 4

Responding Witness: J. Clay Murphy

Q-4 Refer to the second paragraph on page 9 of the Report For the four years indicated in the "Historical Performance" paragraph, provide a breakdown of the components of pipeline transportation cost savings among negotiated pipeline discounts, released capacity, and any other means used to realize savings.

A-4 Below is a table setting forth the historical performance under the Transportation Index Factor ("TIF") of LG&E's gas supply cost PBR mechanism broken down by savings produced from securing pipeline discounts and from capacity release.

	Discounts	Capacity Release	Total
Year 14	$3,890,950	$82,835	$3,973,785
Year 15	$5,995,053	$49,360	$6,044,413
Year 16	$2,617,721	$52,500	$2,670,221
Year 17	$2,613,144	$7,650	$2,620,794
Total	$15,116,868	$192,345	$15,309,213

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
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Case No. 2014-00476

Question No. 5

Responding Witness: J. Clay Murphy

Q-5 Refer to the first sentence of the first full paragraph of page 12 of the Report. Explain whether LG&E is unwilling to continue its PBR mechanism if the Commission does not approve some or all of its proposed modifications and refinements.

A-5 The sentence referenced in the above question states "However, this proposed 5-year extension is predicated upon LG&E's ability to seek Commission approval of interim modifications and refinements."

This sentence was intended to convey that LG&E is agreeable to a 5-year extension of the proposed mechanism if the Commission will also allow LG&E to request changes to the proposed mechanism after its approval (and assuming its approval). Such interim changes may be required in recognition of the fact that "[n]atural gas markets in the U.S. are undergoing significant changes." The immediately quoted sentence follows the sentence referenced in the question.

Nevertheless, selective approval, rejection, or modification of "some or all" of the proposed modifications and refinements proposed by LG&E in this proceeding could result in unintended consequences and suboptimal performance such that customers may not see the level of benefits that might otherwise have been the case. However, LG&E would be receptive to the removal by the Commission of that component of the PBR mechanism that benchmarks supply reservation fees (the "HRF"). Removal of the HRF component of the mechanism would make the risk levels more comparable with those experienced by Columbia Gas of Kentucky and Atmos Energy under their respective PBR mechanisms.

Please see also LG&E's response to Question No. 2.

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Question No. 6

Responding Witness: J. Clay Murphy

Q-6. Refer to pages 12-13 of the Report. Provide a more detailed description of the various shifts in the natural gas supply market which cause the Dominion Transmission, Inc. price postings to no longer be reasonable benchmarks for LG&E's city gate deliveries

A-6 LG&E's gas supply cost PBR mechanism utilizes the Dominion price postings to benchmark gas deliveries to LG&E's city-gate. There was (and still is) no readily available index that would be applicable to gas deliveries made to LG&E's city-gate The Dominion transactions supporting the price posting cover natural gas delivered in western Pennsylvania and West Virginia. (Importantly, LG&E has no direct access to Dominion gas supplies.)

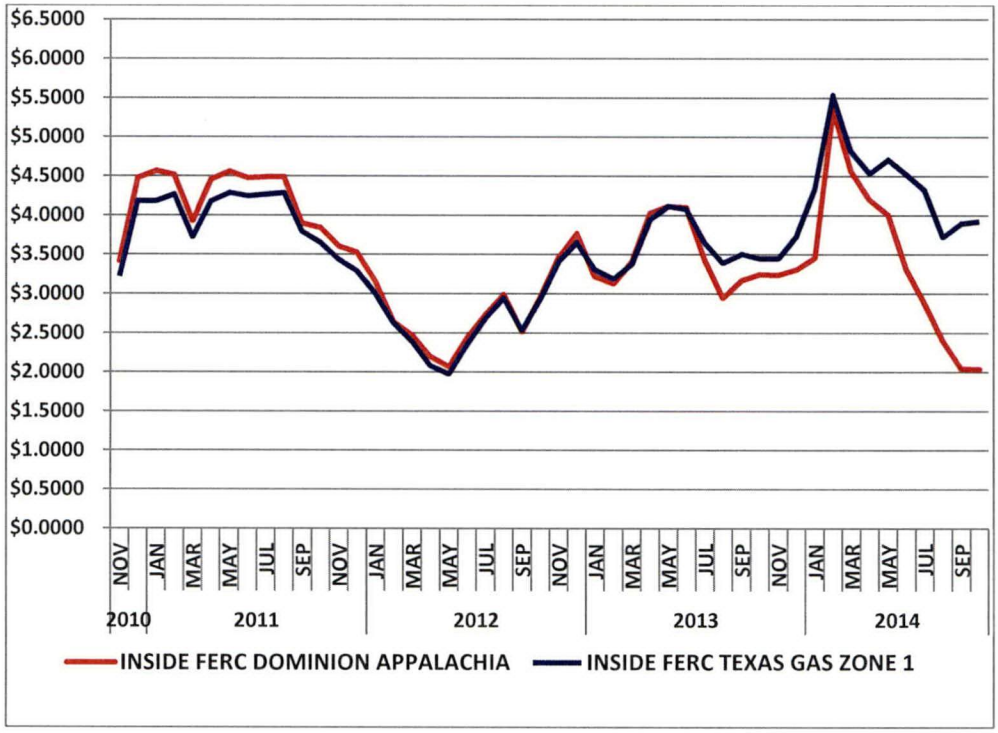
At the time that LG&E first incorporated the Dominion price posting into its PBR mechanism, and for a number of years thereafter, the Dominion price posting reflected natural gas transactions that were delivered from the Gulf Coast to the Dominion market area. As a result, the Dominion price posting was an adequate surrogate for gas deliveries to LG&E's city-gate

With the advent of shale gas production in the Marcellus area, including western Pennsylvania and West Virginia, what was a marketplace for natural gas has become a natural gas producing region. Gas that was being delivered to that area from the Gulf Coast, for example, is now being produced in that region. (Some Marcellus shale gas production is now actually moving back to the Gulf Coast.) The lack of adequate pipeline and other infrastructure to move shale gas from this new producing area to other market areas has created a marketplace dislocation This marketplace dislocation is being reflected in a Dominion price posting that is no longer an adequate surrogate for deliveries to LG&E's city-gate

As gas has become more abundant and supply outpaces demand in that region, new supplies in the area must find non-traditional homes and new routes to the marketplace By lowering the price, producers and other suppliers are attempting to find a "home" for this Marcellus gas by using the currently constrained transportation infrastructure Hence, this marketplace dislocation has suppressed

the Dominion price posting, and it is no longer an adequate surrogate for LG&E's city-gate deliveries.

Below is a graph comparing the first-of-month price postings from *Inside FERC's Gas Market Report* for Texas Gas Zone 1 and Dominion Appalachia. This price posting is one of the price postings currently used in developing the respective Supply Area Index or Delivered Area Index. As can be seen from the graph, until sometime in mid-2013 the Dominion price posting was at or above the Texas Gas Zone 1 posting. Since that time, the two price postings have drifted apart considerably and are now clearly reflecting different market conditions and different supply access levels. Importantly, gas priced in Texas Gas's Zone 1 does not include the cost to transport the gas to LG&E. And yet now, the Dominion price (which was intended to act as a surrogate city-gate delivered price) is below the Texas Gas Zone 1 price. This clearly illustrates that the Dominion postings are no longer suitable benchmarks for gas supplies delivered to LG&E's city-gate.



In this proceeding, LG&E proposes a more robust calculation to determine the benchmark price of natural gas delivered to LG&E's city-gate that will enable LG&E to benchmark delivered gas costs in a more meaningful fashion.

Absent a meaningful benchmark to cover these kinds of delivered gas supply transactions, LG&E might be discouraged from taking advantage of delivered supply opportunities to achieve low cost solutions to meet system gas loads

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
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Question No. 7

Responding Witness: J. Clay Murphy

Q-7. Refer to the first paragraph on page 14 of the Report Provide a detailed description of the circumstances causing the proposed revision to seasonalize the calculation of the SZFQE%, and an example showing the practical impact of the proposed calculation change.

A-7. The Supply Zone Firm Quantity Entitlement Percentage ("SZFQE%") is one of the elements of LG&E's PBR mechanism that establishes a level of risk in the operation of the mechanism. The SZFQE% and its use to establish benchmark purchases does this by benchmarking LG&E's actual purchases against its opportunities to purchase gas in the lowest cost zone, not against the purchases that it actually makes.

So for example, assume the following· LG&E has 75% of its entitlements in Zone A where the applicable Supply Area Index ("SAI") is $2.75/MMBtu, and has 25% in Zone B where the applicable SAI is $3 00/MMBtu, and LG&E purchased 1,000 MMBtu in Zone B at $2.95/MMBtu Without the application of the SZFQE%, LG&E would achieve savings of $0 05/MMBtu ($3 00 - $2.95). However, with the application of the SZFQE%, a more appropriate incentive is established by using a benchmark price which encourages purchases in the lowest cost zone. So, using the SZFQE% in this example, the benchmark price would be $2.8125/MMBtu [(75% x $2 75) + (25% x $3.00)]. Therefore, LG&E is discouraged from purchasing gas in Zone B for $2 95/MMBtu because it would have incurred expenses of $0.1375/MMBtu ($2 8125 – $2.95) LG&E is encouraged to purchase gas in Zone A where the price is $2.75/MMBtu which would achieve savings of $0 0625 ($2.8125 - $2.75) The design of the PBR mechanisms of both Columbia Gas of Kentucky and Atmos Energy do not incorporate the SZFQE% methodology The absence of the SZFQE% methodology could encourage them to purchase the higher priced gas in Zone B for $2 95/MMBtu to create "savings" of $0 05/MMBtu ($3 00 - $2 95) instead of purchasing the lower priced gas in Zone A. Please see also LG&E's response to Question No 2

If LG&E does not (or is not able) to maximize its purchases of gas in the lowest cost zone, savings are not maximized under the PBR mechanism. Ensuring that the SZFQE% accurately reflects the actual supply zone entitlements is one way to help ensure that performance is maximized under the mechanism and that disincentives to maximize that performance are not created. The use of a SZFQE% is one important way in which LG&E's PBR mechanism differs from that of other LDCs in Kentucky

LG&E is proposing to seasonalize the calculation of the SZFQE% to recognize that LG&E's pipeline services and supply zone entitlements are in fact seasonal For pipeline contracting purposes the Winter Season includes the months of November through March, and the Summer Season includes the months of April through October. LG&E has seasonal contract demand (and hence supply zone entitlements) associated with its various pipeline services Under Rate Schedule NNS of Texas Gas, LG&E has a Winter forwardhaul contract demand of 184,900 MMBtu/day, and a Summer forwardhaul contract demand of 60,000 MMBtu/day (with applicable shoulder month quantities during April and October) Under Texas Gas's Rate Schedule STF, LG&E has no Winter contract demand, and a Summer forward haul contract demand of 18,000 MMBtu/day LG&E has only two transportation arrangements under which its Summer and Winter contract demand levels are the same. Under Texas Gas's Rate FT, LG&E has an annual (Summer and Winter) forwardhaul contract demand of 10,000 MMBtu/day Under Rate Schedule FT-A of Tennessee, LG&E has an annual (Summer and Winter) forwardhaul contract demand of 20,000 MMBtu/day.

Below is a table setting forth LG&E's current seasonal SZFQE% based on the underlying historical supply zone entitlements.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Current Mechanism with Annual SZFQE%				
Year	Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1	Total Annual
			Annual			
14	14 51%	48 60%	6 20%	24 07%	6 62%	100 00%
15	11 48%	50 47%	7 36%	24 07%	6 62%	100 00%
16	14 11%	62 05%	9 04%	14 80%	0 00%	100 00%
17	12 38%	63 25%	9 57%	14 80%	0 00%	100 00%

Below is a table setting forth LG&E's proposed seasonal SZFQE% based on the underlying historical supply zone entitlements

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Proposed Mechanism with Seasonal SZFQE%					
Year	Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1	Total Seasonal
			Winter			
14	18 21%	53 21%	6 85%	17 04%	4 69%	100 00%
15	14 57%	54 91%	8 79%	17 04%	4 69%	100 00%
16	16 79%	63 27%	10 13%	9 81%	0 00%	100 00%
17	16 78%	63 27%	10 13%	9 82%	0 00%	100 00%
			Summer			
14	11 68%	39 72%	5 29%	33 97%	9 34%	100 00%
15	9 25%	41 46%	5 98%	33 97%	9 34%	100 00%
16	12 55%	56 28%	8 12%	23 05%	0 00%	100 00%
17	7 95%	59 47%	9 52%	23 06%	0 00%	100 00%

Therefore, reflecting the seasonal nature of LG&E's pipeline services and the underlying supply zone entitlements will result in benchmarks that more closely match the supply zone entitlements available to LG&E and in the process better incent behavior that will provide lower costs to customers

Please see LG&E's response to Question No 9 which shows the historical impact on the savings calculated under LG&E's gas supply cost PBR mechanism for the same period using the seasonal SZFQE% proposed in this proceeding

LOUISVILLE GAS AND ELECTRIC COMPANY

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Question No. 8

Responding Witness: J. Clay Murphy

Q-8 Refer to the last sentence of the second paragraph on page 14 of the Report. For the last five years, provide a comparison of the prices used to calculate the Supply Area Index based on Platts Gas Daily high and low prices with the midpoint prices LG&E proposes to use.

A-8 The Supply Area Indices ("SAIs") are used in the calculation of the Benchmark Gas Costs ("BGC") under LG&E's gas supply cost PBR mechanism

Below are tables comparing (1) the Supply Area Indices ("SAIs") calculated using the average of the high and low postings set forth in the "Platts Gas Daily" publication (labelled "Current Supply Area Indices") to (2) the SAIs based upon the mid-point posting set forth in the "Platts Gas Daily" publication (labelled "Proposed Supply Area Indices").

The table labeled "Difference" is a comparison of the "Current" and "Proposed" SAIs The "Proposed Supply Area Indices" almost always produce a lower SAI than the "Current Supply Area Indices" As a result, the proposed methodology will produce a lower benchmark than the current methodology, and therefore decrease any potential savings (or increase any potential expenses) calculated under the gas supply cost PBR mechanism

Please see LG&E's response to Question No 9 which shows the historical impact on the savings calculated under LG&E's gas supply cost PBR mechanism for the same period

PBR Year 14 - 2010/2011

Current Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2010	Nov	$3 4861	$3 4871	$3 6699	$3 4732	$3 4971
	Dec	$4 2265	$4 2058	$4 4791	$4 1853	$4 2520
2011	Jan	$4 3369	$4 3274	$4 5553	$4 3023	$4 3621
	Feb	$4 1375	$4 1278	$4 3714	$4 1358	$4 1586
	Mar	$3 8450	$3 8386	$4 0423	$3 8176	$3 8523
	Apr	$4 1759	$4 1480	$4 3738	$4 1367	$4 1769
	May	$4 2637	$4 2481	$4 4619	$4 2227	$4 2949
	Jun	$4 4753	$4 4170	$4 6037	$4 4157	$4 4746
	Jul	$4 3515	$4 3243	$4 5202	$4 3220	$4 3781
	Aug	$4 1497	$4 1264	$4 2716	$4 1146	$4 1664
	Sep	$3 8770	$3 8236	$3 9767	$3 8248	$3 8689
	Oct	$3 5717	$3 5419	$3 6980	$3 5399	$3 5919
	Avg	$4 0747	$4 0513	$4 2520	$4 0409	$4 0895

Proposed Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2010	Nov	$3 4876	$3 4857	$3 6717	$3 4717	$3 4974
	Dec	$4 2182	$4 1973	$4 4702	$4 1747	$4 2428
2011	Jan	$4 3295	$4 3208	$4 5451	$4 2935	$4 3535
	Feb	$4 1228	$4 1121	$4 3506	$4 1162	$4 1433
	Mar	$3 8396	$3 8339	$4 0373	$3 8111	$3 8464
	Apr	$4 1754	$4 1475	$4 3723	$4 1367	$4 1762
	May	$4 2551	$4 2404	$4 4524	$4 2133	$4 2861
	Jun	$4 4698	$4 4123	$4 5954	$4 4121	$4 4702
	Jul	$4 3438	$4 3164	$4 5101	$4 3134	$4 3703
	Aug	$4 1464	$4 1224	$4 2661	$4 1097	$4 1629
	Sep	$3 8757	$3 8220	$3 9742	$3 8235	$3 8707
	Oct	$3 5681	$3 5384	$3 6941	$3 5360	$3 5883
	Avg	$4 0693	$4 0458	$4 2450	$4 0343	$4 0840

Difference

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2010	Nov	$0 0015	($0 0014)	$0 0018	($0 0015)	$0 0003
	Dec	($0 0083)	($0 0085)	($0 0089)	($0 0106)	($0 0092)
2011	Jan	($0 0074)	($0 0066)	($0 0102)	($0 0088)	($0 0086)
	Feb	($0 0147)	($0 0157)	($0 0208)	($0 0196)	($0 0153)
	Mar	($0 0054)	($0 0047)	($0 0050)	($0 0065)	($0 0059)
	Apr	($0 0005)	($0 0005)	($0 0015)	$0 0000	($0 0007)
	May	($0 0086)	($0 0077)	($0 0095)	($0 0094)	($0 0088)
	Jun	($0 0055)	($0 0047)	($0 0083)	($0 0036)	($0 0044)
	Jul	($0 0077)	($0 0079)	($0 0101)	($0 0086)	($0 0078)
	Aug	($0 0033)	($0 0040)	($0 0055)	($0 0049)	($0 0035)
	Sep	($0 0013)	($0 0016)	($0 0025)	($0 0013)	$0 0018
	Oct	($0 0036)	($0 0035)	($0 0039)	($0 0039)	($0 0036)
	Avg	($0 0054)	($0 0056)	($0 0070)	($0 0066)	($0 0055)

PBR Year 15 - 2011/2012

Current Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2011	Nov	$3 2997	$3 2583	$3 4456	$3 2419	$3 3119
	Dec	$3 2512	$3 2109	$3 3776	$3 1972	$3 2499
2012	Jan	$2 8020	$2 7873	$2 9164	$2 7888	$2 8405
	Feb	$2 5495	$2 5361	$2 6610	$2 5008	$2 5795
	Mar	$2 2370	$2 2188	$2 2998	$2 2073	$2 2567
	Apr	$2 0003	$1 9772	$2 0795	$1 9658	$2 0053
	May	$2 2583	$2 2427	$2 3177	$2 2318	$2 2682
	Jun	$2 3721	$2 3556	$2 4321	$2 3761	$2 3840
	Jul	$2 8257	$2 8097	$2 8826	$2 8209	$2 8408
	Aug	$2 9153	$2 8554	$2 9176	$2 8794	$2 8837
	Sep	$2 6975	$2 6817	$2 7554	$2 6861	$2 7181
	Oct	$3 1505	$3 1294	$3 2529	$3 1002	$3 1759
	Avg	$2 6966	$2 6719	$2 7782	$2 6664	$2 7095

Proposed Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2011	Nov	$3 2784	$3 2310	$3 4215	$3 2181	$3 2896
	Dec	$3 2416	$3 2019	$3 3653	$3 1856	$3 2412
2012	Jan	$2 7988	$2 7836	$2 9115	$2 7828	$2 8364
	Feb	$2 5543	$2 5414	$2 6660	$2 5057	$2 5845
	Mar	$2 2344	$2 2154	$2 2954	$2 2037	$2 2519
	Apr	$2 0005	$1 9764	$2 0791	$1 9653	$2 0048
	May	$2 2600	$2 2451	$2 3187	$2 2340	$2 2706
	Jun	$2 3658	$2 3502	$2 4248	$2 3692	$2 3777
	Jul	$2 8261	$2 8102	$2 8823	$2 8204	$2 8412
	Aug	$2 9087	$2 8508	$2 9115	$2 8740	$2 8790
	Sep	$2 6926	$2 6754	$2 7492	$2 6817	$2 7160
	Oct	$3 1522	$3 1326	$3 2553	$3 1037	$3 1787
	Avg	$2 6928	$2 6678	$2 7734	$2 6620	$2 7060

Difference

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2011	Nov	($0 0213)	($0 0273)	($0 0241)	($0 0238)	($0 0223)
	Dec	($0 0096)	($0 0090)	($0 0123)	($0 0116)	($0 0087)
2012	Jan	($0 0032)	($0 0037)	($0 0049)	($0 0060)	($0 0041)
	Feb	$0 0048	$0 0053	$0 0050	$0 0049	$0 0050
	Mar	($0 0026)	($0 0034)	($0 0044)	($0 0036)	($0 0048)
	Apr	$0 0002	($0 0008)	($0 0004)	($0 0005)	($0 0005)
	May	$0 0017	$0 0024	$0 0010	$0 0022	$0 0024
	Jun	($0 0063)	($0 0054)	($0 0073)	($0 0069)	($0 0063)
	Jul	$0 0004	$0 0005	($0 0003)	($0 0005)	$0 0004
	Aug	($0 0066)	($0 0046)	($0 0061)	($0 0054)	($0 0047)
	Sep	($0 0049)	($0 0063)	($0 0062)	($0 0044)	($0 0021)
	Oct	$0 0017	$0 0032	$0 0024	$0 0035	$0 0028
	Avg	($0 0038)	($0 0041)	($0 0048)	($0 0043)	($0 0036)

PBR Year 16 - 2012/2013

Current Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2012	Nov	$3 4818	$3 4657	$3 6125	$3 4183	$3 4938
	Dec	$3 4413	$3 4270	$3 5737	$3 4095	$3 4443
2013	Jan	$3 3091	$3 3029	$3 4552	$3 2932	$3 3334
	Feb	$3 2492	$3 2431	$3 3902	$3 2167	$3 2689
	Mar	$3 6305	$3 6074	$3 7386	$3 5836	$3 6219
	Apr	$4 0639	$4 0553	$4 1550	$4 0311	$4 0858
	May	$4 0618	$4 0424	$4 1324	$4 0406	$4 1116
	Jun	$3 9211	$3 8982	$3 9728	$3 8888	$3 9562
	Jul	$3 6119	$3 6056	$3 6781	$3 5794	$3 6383
	Aug	$3 3714	$3 3656	$3 4682	$3 3453	$3 3820
	Sep	$3 5474	$3 5416	$3 6546	$3 5325	$3 5610
	Oct	$3 5851	$3 5733	$3 7114	$3 5466	$3 5856
	Avg	$3 6062	$3 5940	$3 7119	$3 5738	$3 6236

Proposed Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2012	Nov	$3 4732	$3 4569	$3 5982	$3 4066	$3 4867
	Dec	$3 4417	$3 4271	$3 5732	$3 4091	$3 4453
2013	Jan	$3 3120	$3 3057	$3 4589	$3 2953	$3 3361
	Feb	$3 2432	$3 2363	$3 3839	$3 2107	$3 2626
	Mar	$3 6349	$3 6137	$3 7419	$3 5898	$3 6270
	Apr	$4 0632	$4 0564	$4 1532	$4 0323	$4 0864
	May	$4 0539	$4 0369	$4 1233	$4 0338	$4 1046
	Jun	$3 9170	$3 8947	$3 9674	$3 8862	$3 9516
	Jul	$3 6095	$3 6037	$3 6743	$3 5769	$3 6358
	Aug	$3 3690	$3 3620	$3 4642	$3 3424	$3 3797
	Sep	$3 5395	$3 5351	$3 6450	$3 5250	$3 5553
	Oct	$3 5836	$3 5719	$3 7083	$3 5447	$3 5852
	Avg	$3 6034	$3 5917	$3 7077	$3 5711	$3 6214

Difference

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2012	Nov	($0 0086)	($0 0088)	($0 0143)	($0 0117)	($0 0071)
	Dec	$0 0004	$0 0001	($0 0005)	($0 0004)	$0 0010
2013	Jan	$0 0029	$0 0028	$0 0037	$0 0021	$0 0027
	Feb	($0 0060)	($0 0068)	($0 0063)	($0 0060)	($0 0063)
	Mar	$0 0044	$0 0063	$0 0033	$0 0062	$0 0051
	Apr	($0 0007)	$0 0011	($0 0018)	$0 0012	$0 0006
	May	($0 0079)	($0 0055)	($0 0091)	($0 0068)	($0 0070)
	Jun	($0 0041)	($0 0035)	($0 0054)	($0 0026)	($0 0046)
	Jul	($0 0024)	($0 0019)	($0 0038)	($0 0025)	($0 0025)
	Aug	($0 0024)	($0 0036)	($0 0040)	($0 0029)	($0 0023)
	Sep	($0 0079)	($0 0065)	($0 0096)	($0 0075)	($0 0057)
	Oct	($0 0015)	($0 0014)	($0 0031)	($0 0019)	($0 0004)
	Avg	($0 0028)	($0 0023)	($0 0042)	($0 0027)	($0 0022)

PBR Year 17 - 2013/2014

Current Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2013	Nov	$3 5152	$3 5013	$3 6161	$3 4705	$3 5188
	Dec	$4 0281	$4 0070	$4 2036	$3 9692	$4 0194
2014	Jan	$4 5222	$4 4953	$5 4524	$4 3862	$4 4840
	Feb	$5 7661	$5 7715	$7 7612	$5 6744	$5 7464
	Mar	$4 7820	$4 8068	$5 6410	$4 7060	$4 8187
	Apr	$4 5267	$4 5165	$4 6778	$4 4762	$4 5472
	May	$4 5702	$4 5526	$4 6610	$4 5002	$4 5943
	Jun	$4 5136	$4 5135	$4 5957	$4 4776	$4 5390
	Jul	$4 1071	$4 0980	$4 2039	$4 0789	$4 1364
	Aug	$3 8014	$3 7825	$3 8820	$3 7696	$3 8117
	Sep	$3 8741	$3 8693	$3 9528	$3 8439	$3 8875
	Oct	$3 7794	$3 7770	$3 8413	$3 7418	$3 8028
	Avg	$4 3155	$4 3076	$4 7074	$4 2579	$4 3255

Proposed Supply Area Indices

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2013	Nov	$3 5412	$3 5067	$3 6211	$3 4754	$3 5250
	Dec	$4 0350	$4 0109	$4 2126	$3 9721	$4 0245
2014	Jan	$4 5039	$4 4705	$5 3826	$4 3619	$4 4581
	Feb	$5 7197	$5 7473	$7 5749	$5 6405	$5 7157
	Mar	$4 7507	$4 7713	$5 6674	$4 6706	$4 7795
	Apr	$4 5213	$4 5134	$4 6682	$4 4728	$4 5452
	May	$4 5636	$4 5467	$4 6512	$4 4930	$4 5881
	Jun	$4 5091	$4 5090	$4 5875	$4 4725	$4 5346
	Jul	$4 1051	$4 0988	$4 2016	$4 0763	$4 1369
	Aug	$3 7988	$3 7801	$3 8809	$3 7665	$3 8083
	Sep	$3 8698	$3 8646	$3 9469	$3 8393	$3 8826
	Oct	$3 7794	$3 7740	$3 8357	$3 7392	$3 8009
	Avg	$4 3081	$4 2994	$4 6859	$4 2483	$4 3166

Difference

		Texas Gas Zone SL	Texas Gas Zone 1	Texas Gas Zone 4	Tennessee Zone 0	Tennessee Zone 1
2013	Nov	$0 0260	$0 0054	$0 0050	$0 0049	$0 0062
	Dec	$0 0069	$0 0039	$0 0090	$0 0029	$0 0051
2014	Jan	($0 0183)	($0 0248)	($0 0698)	($0 0243)	($0 0259)
	Feb	($0 0464)	($0 0242)	($0 1863)	($0 0339)	($0 0307)
	Mar	($0 0313)	($0 0355)	$0 0264	($0 0354)	($0 0392)
	Apr	($0 0054)	($0 0031)	($0 0096)	($0 0034)	($0 0020)
	May	($0 0066)	($0 0059)	($0 0098)	($0 0072)	($0 0062)
	Jun	($0 0045)	($0 0045)	($0 0082)	($0 0051)	($0 0044)
	Jul	($0 0020)	$0 0008	($0 0023)	($0 0026)	$0 0005
	Aug	($0 0026)	($0 0024)	($0 0011)	($0 0031)	($0 0034)
	Sep	($0 0043)	($0 0047)	($0 0059)	($0 0046)	($0 0049)
	Oct	$0 0000	($0 0030)	($0 0056)	($0 0026)	($0 0019)
	Avg	($0 0074)	($0 0082)	($0 0215)	($0 0095)	($0 0089)

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's Initial Request for Information
Dated March 25, 2015

Case No. 2014-00476

Question No. 9

Responding Witness: J. Clay Murphy

Q-9 Refer to Appendix A of the Report. For each of the four PBR program years for which information is provided (years 14, 15, 16, and 17), provide the percentage that total PBR savings represents of total gas cost.

A-9. Below is a table setting forth for Years 14, 15, 16, and 17, the Total Savings, the Actual Gas Costs ("AGC"), the Total Actual Annual Gas Transportation Costs ("TAAGTC"), and the percentage applicable to each PBR Year

(1)	(2)	(3)	(4)	(5)	(6)
		Current Mechanism			
Year	Total Savings	AGC	TAAGTC	Total (3) + (4)	Percentage (2) / (5)
14	$10,805,501	$154,717,503	$25,414,064	$180,131,567	6 00%
15	$10,961,586	$83,298,659	$25,037,635	$108,336,294	10 12%
16	$6,192,465	$129,873,248	$23,337,263	$153,210,511	4 04%
17	$5,855,873	$177,361,401	$23,543,863	$200,905,264	2 91%

This second table shows the impact of all the changes proposed by LG&E in this proceeding, and specifically (1) the impact of the change in the calculation of the Supply Zone Firm Quantity Entitlement Percentage ("SZFQE%") as discussed in LG&E's response to Question No 7, and (2) the impact of the change to Supply Area Indices ("SAIs") by using the midpoint instead of the average of the high and low postings as discussed in LG&E's response to Question No 8.

(1)	(2)	(3)	(4)	(5)	(6)
		Proposed Mechanism			
Year	Total Savings	AGC	TAAGTC	Total (3) + (4)	Percentage (2) / (5)
14	$10,593,072	$154,717,503	$25,414,064	$180,131,567	5 88%
15	$10,860,840	$83,298,659	$25,037,635	$108,336,294	10 03%
16	$6,085,382	$129,873,248	$23,337,263	$153,210,511	3 97%
17	$5,506,190	$177,361,401	$23,543,863	$200,905,264	2 74%