COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR RENEWAL AND PROPOSED MODIFICATION OF ITS PERFORMANCE-BASED RATEMAKING MECHANISM	)))))	**CASE NO. 2019-00437**

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APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR RENEWAL AND PROPOSED MODIFICATION OF ITS PERFORMANCE-BASED RATEMAKING MECHANISM

Applicant, Louisville Gas and Electric Company ("LG&E" or "Company"), pursuant to the final order of the Kentucky Public Service Commission ("Commission") in Case No. 2014-00476[1] and the terms of LG&E's Experimental Performance-Based Rate Mechanism Tariff (Original Sheet No. 87, P.S.C. Gas No. 12), hereby applies to the Commission for authority to renew and modify its Performance-Based Ratemaking Mechanism.

In support of its Application, LG&E states as follows:

1. The full name and mailing address of LG&E is: Louisville Gas and Electric Company, Post Office Box 32010, 220 West Main Street, Louisville, Kentucky

[1] *In the Matter of:* Louisville Gas and Electric Company's Proposed Renewal and Modification of its Performance-Based Ratemaking Mechanism, Case No. 2014-00476, Order of June 30, 2015.

40202. LG&E may be reached by electronic mail at the electronic mail addresses of its counsel set forth below.

2. LG&E is a utility engaged in the electric and gas business. LG&E generates and purchases electricity, and distributes and sells electricity at retail in Jefferson County and portions of Bullitt, Hardin, Henry, Meade, Oldham, Shelby, Spencer, and Trimble Counties. LG&E also purchases, stores, and transports natural gas and distributes and sells natural gas at retail in Jefferson County and portions of Barren, Bullitt, Green, Hardin, Hart, Henry, Larue, Marion, Meade, Metcalfe, Nelson, Oldham, Shelby, Spencer, Trimble, and Washington Counties.

3. LG&E was incorporated in Kentucky on July 2, 1913, and is currently in good standing in Kentucky. A copy of LG&E's good standing certificate from the Kentucky Secretary of State is attached as Exhibit 1.

4. Copies of all orders, pleadings, and other communications related to this proceeding should be directed to:

Robert M. Conroy
Vice President – State Regulation and Rates
LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202
robert.conroy@lge-ku.com

Allyson K. Sturgeon
Managing Senior Counsel, Regulatory and Transactions
Sara Judd
Senior Corporate Attorney
LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202
allyson.sturgeon@lge-ku.com
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5. LG&E supports its request with the verified testimony and exhibits of J. Clay Murphy, Director – Gas Management, Planning, and Supply and with the Report attached to this Application as Exhibit 2. As detailed in LG&E's Report and Mr. Murphy's testimony, LG&E's gas supply cost performance-based ratemaking mechanism provides LG&E with an incentive to outperform benchmarks and achieve lower gas costs for customers.

6. LG&E proposes to file a report on and assessment of the new gas supply cost PBR mechanism that has been requested to become effective November 1, 2020, according to the same timeline that is included in its current PBR mechanism (i.e., within sixty (60) days of October 31, 2024). LG&E will make any recommended modifications to the gas supply cost PBR mechanism in that report, and the Commission will review and act upon any proposed changes to the mechanism at that time. This procedure will add certainty to the nature of the mechanism by establishing a review and approval process with a known timeline.

7. LG&E also requests that the Commission authorize the extension and modification of its PBR mechanism by no later than June 1, 2020. Authorization by this date will allow LG&E adequate time to adjust its gas supply portfolio and supply strategies in response to LG&E's proposed modifications to the PBR mechanism prior to the effective date of the new mechanism.

WHEREFORE, Louisville Gas and Electric Company respectfully requests that the Commission issue an Order authorizing the Company to extend and modify its PBR mechanism by no later than June 1, 2020.

Dated: December 27, 2019

Respectfully submitted,

Allyson K. Sturgeon /SVJ

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Managing Senior Counsel – Regulatory and Transactions
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Counsel for Louisville Gas and Electric Company

CERTIFICATE OF COMPLIANCE

This is to certify that the December 27, 2019 electronic filing of the Application is a true and accurate copy of the same document being filed in paper medium; that the electronic filing has been transmitted to the Commission on December 27, 2019; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that an original in paper medium of the Application is being delivered to the Commission on December 27, 2019.

Allyson K. Sturgeon /SRS

Counsel for Louisville Gas and Electric Company

Commonwealth of Kentucky
Alison Lundergan Grimes, Secretary of State

Alison Lundergan Grimes
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Existence

Authentication number: 224294
Visit https://app.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Alison Lundergan Grimes, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

LOUISVILLE GAS AND ELECTRIC COMPANY

is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 271B, whose date of incorporation is July 2, 1913 and whose period of duration is perpetual.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that Articles of Dissolution have not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 16th day of December, 2019, in the 228th year of the Commonwealth.

COMMONWEALTH OF KENTUCKY
OFFICE OF SECRETARY OF STATE

Alison Lundergan Grimes

Alison Lundergan Grimes
Secretary of State
Commonwealth of Kentucky
224294/0032196

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION ON LOUISVILLE GAS AND ELECTRIC COMPANY'S PROPOSED RENEWAL AND MODIFICATION TO ITS PERFORMANCE-BASED RATEMAKING MECHANISM	))))	**CASE NO. 2019-00437**

TESTIMONY OF
J. CLAY MURPHY
DIRECTOR – GAS MANAGEMENT, PLANNING, AND SUPPLY
LOUISVILLE GAS AND ELECTRIC COMPANY

Filed: December 27, 2019

Q. Please state your name and business address.

A. My name is J. Clay Murphy and my business address is 820 West Broadway, Louisville, Kentucky.

Q. By whom are you employed and in what capacity?

A. I am the Director – Gas Management, Planning, and Supply for Louisville Gas and Electric Company ("LG&E").

Q. What is your role as Director – Gas Management, Planning, and Supply?

A. I am responsible for overseeing the procurement and management of natural gas supplies and interstate pipeline gas transportation services for LG&E. These natural gas supplies and pipeline transportation services are designed to meet the needs of LG&E's firm retail gas sales customers. I also oversee the coordination and management of LG&E's end-use natural gas transportation services for large end-users who purchase their own gas supplies and pipeline transportation services. I am also involved in a number of other regulatory and planning activities and initiatives related to LG&E's natural gas business.

Q. What is your educational background and work experience?

A. I graduated from Bellarmine College in Louisville, Kentucky, with a B. A. degree in Accounting in 1979. I graduated from Indiana University in Bloomington, Indiana, with an M.B.A. in 1981. I was employed by LG&E in the same year in the Rate and Economic Research Department, where I remained until 1986 when I moved to the newly created Gas Supply Department. I became manager of that department in 1989 and director in 2000. A statement of my education and work experience is contained in Appendix A.

Q. Have you previously testified before the Kentucky Public Service Commission ("Commission")?

A. Yes. I submitted written testimony in the Commission's Administrative Case No. 346, "An Investigation of the Impact of the Federal Energy Regulatory Commission's Order 636 on Kentucky Consumers and Suppliers of Natural Gas." I have also submitted testimony in previous rate proceedings, including Case Nos. 2000-00080, 2003-00433, 2008-00252, and 2012-00222. I testified in Case No. 2010-00146, "An Investigation of Natural Gas Retail Competition Programs." I have responded to the Commission's requests for information in the 2018 audit of LG&E's gas purchasing practices in Case No. 2018-00302. Lastly, I have testified in other proceedings before this Commission related to gas supply matters, including LG&E's gas supply cost Performance-Based Ratemaking ("PBR") mechanism applications in Case Nos. 1997-00171, 2001-00017, 2005-00031, 2009-00550, and 2014-00476.

Q. What is the purpose of your testimony in this case?

A. The purpose of my testimony is to adopt and support in its entirety LG&E's 2019 report and application for a proposed renewal of and modifications to its gas supply cost PBR mechanism. As detailed in LG&E's report, LG&E's gas supply cost PBR mechanism provides LG&E with an incentive to achieve savings by outperforming benchmarks. In order to provide lower gas costs for customers, the incentive component of the PBR mechanism allows LG&E to share in the savings (or expenses) achieved under the mechanism.

Q. Will you please summarize LG&E's 2019 report?

A. LG&E's report discusses the continuing applicability of performance-based ratemaking mechanisms and describes the principles that LG&E has used in designing its PBR mechanism. The report goes on to discuss the results achieved under each of the three components of the mechanism (gas acquisition, gas transportation, and off-system sales) and the sharing of any savings (or expenses) between LG&E and its customers. The report concludes with a discussion of the changes that LG&E is proposing to its gas supply cost PBR mechanism.

Q. Please describe the changes that LG&E is proposing to its gas supply cost PBR mechanism.

A. As outlined in detail in the report, LG&E is proposing three main modifications to its gas supply cost PBR mechanism. Firstly, LG&E is proposing to modify the gas commodity benchmarking component of the PBR mechanisms by adding the New York Mercantile Exchange ("NYMEX") settled closing price and making other minor conforming changes in the names of the indices already used in the PBR mechanism. Secondly, LG&E is proposing to alter the sharing percentages and threshold in order to make them consistent with those found in other Kentucky gas supply cost PBR mechanisms. Thirdly, LG&E is proposing to extend the mechanism as modified from November 1, 2020, through October 31, 2025, and to authorize that extension by June 1, 2020. Each of these items are discussed in greater detail in the accompanying report.

Q. Why should the Commission approve LG&E's application in this proceeding?

A. The Commission should approve the modifications to, and extension of, LG&E's PBR mechanism because it aligns the interests of LG&E and its customers with the goal of lowering gas costs. Instead of focusing the Company's efforts on merely recovering prudently incurred gas costs, the PBR mechanism and the changes proposed by LG&E will focus the Company's efforts on out-performing benchmarks (which act as a surrogate for prudently incurred costs) and reward both LG&E and its customers for LG&E's optimization efforts.

Q. Does this conclude your testimony?

A. Yes, it does.

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
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 foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

J Clay Murphy

J. Clay Murphy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 27th day of December 2019.

Judy Schooler

Notary Public

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

APPENDIX A

J. CLAY MURPHY

Director – Gas Management, Planning, and Supply
Louisville Gas and Electric Company
820 West Broadway
Louisville, Kentucky 40202

PROFESSIONAL EXPERIENCE:

LOUISVILLE GAS AND ELECTRIC COMPANY

Director – Gas Management, Planning and Supply (7/00 – Present)
Manager – Gas Supply (12/89 – 7/00)
Gas Supply Coordinator (10/86 – 12/89)
Rate Analyst (10/81 – 10/86)

EDUCATION:

INDIANA UNIVERSITY
Bloomington, Indiana (8/79 – 5/81)
Master of Business Administration

BELLARMINE COLLEGE
Louisville, Kentucky (8/75 - 5/79)
Bachelor of Arts with Major in Accounting

LOUISVILLE GAS AND ELECTRIC COMPANY

REPORT TO THE KENTUCKY PUBLIC SERVICE COMMISSION ON GAS SUPPLY COST PERFORMANCE-BASED RATEMAKING MECHANISM

December 27, 2019

On December 30, 2014, Louisville Gas and Electric Company ("LG&E" or "the Company") filed with the Kentucky Public Service Commission (hereinafter "Commission") a report on its gas supply cost Performance-Based Ratemaking ("PBR") mechanism. On June 30, 2015, the Commission issued its Order in Case No. 2014-00476 approving LG&E's current gas supply cost PBR mechanism for a five-year period to end October 31, 2020. In accordance with that Order, LG&E is required to submit to the Commission its report on the gas supply cost PBR mechanism sixty days after the close of the PBR Year encompassing the 12 months ended October 31, 2019. The current gas supply cost PBR mechanism remains in effect through October 31, 2020, pending a subsequent Commission Order modifying or extending the current gas supply cost PBR mechanism.

In this report, LG&E first addresses the success and applicability of its gas supply cost PBR mechanism as an incentive to outperform benchmarks and achieve lower gas costs for customers. Next, LG&E assesses its performance under the three components of its current gas supply cost PBR mechanism. Finally, LG&E proposes an extension of, and certain modifications to, the current gas supply cost PBR mechanism.

SUCCESS AND APPLICABILITY OF GAS SUPPLY COST PBR MECHANISM

Performance-based ratemaking mechanisms began to be applied to purchased gas costs in the 1990s. These mechanisms were designed to incentivize local distribution companies ("LDCs") to optimize their gas supply portfolios within the prevailing marketplace in order to provide lower gas costs to customers without diminishing reliability. Natural gas markets in the U.S. continue to undergo significant changes. The general increase in the availability of natural gas is only part of the story. Demands from new, non-traditional sectors are changing the marketplace for natural gas and pipeline services. Through portfolio optimization LDCs respond to these marketplace changes and achieve benefits for customers beyond those that may otherwise have been produced by a prudence standard alone. Well-designed gas supply cost PBR mechanisms encourage optimization along the whole range of gas supply activities, both daily and over much longer periods. Encouraging optimization is important in today's evolving markets for natural gas and interstate pipeline services.

Performance-based mechanisms contain two components: (1) the component that establishes the benchmarks against which results are to be measured, and (2) the component that allocates the results. The benchmarks establish the kind of behavior that should be rewarded and are a key part of the mechanism. Concurrent benchmarks against which to compare results ensure that the mechanism reflects evolving market conditions. These benchmarks must be carefully constructed in order to ensure that appropriate behavior is incented, and inappropriate behavior is not encouraged. Properly constructed benchmarks align the interests of the LDC and its customers. The second component (the sharing mechanism) allocates the results (savings or expenses) by establishing the reward that an LDC receives for outperforming the benchmarks and undertaking risks associated with achieving lower gas costs for customers.

LG&E's gas supply cost PBR mechanism continues to be successful in encouraging LG&E to outperform benchmarks, achieve measurable gas supply cost savings, and provide lower gas costs to its customers with no decrease in reliability. In this regard, LG&E's gas supply cost PBR mechanism directly supports the goal outlined by the Commission in its 2018 audit of LDCs' gas procurement activities which was "to ensure that they are maximizing the opportunity to pass along gas costs savings to their customers, consistent with security of supply, during this time of plentiful and low-cost gas supplies."[1]

During the period covered by this report (that is, from November 1, 2015, and through October 31, 2019), LG&E has achieved $20,726,465 in savings under the current mechanism. Of the total savings, LG&E has retained $7,005,625, and the remaining portion of $13,720,840 has been credited to customers. Attached as Appendix A is a summary of LG&E's gas supply cost PBR results showing by PBR Year the total savings, the customer and shareholder portions, and the total actual gas supply costs benchmarked under the mechanism. Attached as Appendix B is a monthly summary by component for Year 19 (the 12 months ended October 31, 2016), Year 20 (the 12 months ended October 31, 2017), Year 21 (the 12 months ended October 31, 2018), and Year 22 (the 12 months ended October 31, 2019). The supporting work papers have been previously filed with the Commission by LG&E in the required annual gas supply cost PBR mechanism reports.

LG&E's gas supply cost PBR mechanism, which measures performance against established benchmarks, is understandable and easy to calculate and yet complex enough to reflect market realities. It encourages LG&E to develop, pursue, and manage supply arrangements, and undertake risks commensurate with potential rewards, in order to achieve lower gas costs without diminishing reliability.

LG&E's gas supply cost PBR mechanism:

(1) Benefits LG&E's customers and shareholders;
(2) Encourages LG&E to enhance its position as an energy provider;
(3) Promotes successful cost management;
(4) Establishes an objective benchmark as a regulatory standard;
(5) Functions as a regulatory model that operates effectively in a highly competitive market; and
(6) Enables LG&E to maintain service reliability.

LG&E's PBR mechanism benefits both customers and shareholders. The PBR mechanism encourages LG&E to outperform benchmarks resulting in the provision of

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[1] See Order in Case No. 2018-00182 dated July 30, 2018, pp. 2-3.

lower cost and reliable natural gas service to customers. Shareholders are able to benefit from the PBR mechanism through the sharing mechanism which rewards shareholders for the assumption of certain risks associated with optimizing performance under the PBR mechanism. These risks include, but are not limited to, contracting risks, storage management risks, supply management risks, transportation management risks, and credit risks. And of course, there is the risk the LDC would share in expenses that might result under the mechanism, a risk that would not exist absent the PBR mechanism itself.

LG&E's PBR mechanism establishes meaningful and objective benchmarks against which to measure LG&E's performance. The benefits associated with LG&E's PBR mechanism are quantifiable, measurable, and verifiable. The PBR mechanism provides continued Commission oversight of LG&E's gas supply purchasing activities by enabling the Commission to objectively measure LG&E's performance.

LG&E's PBR mechanism continues to provide incremental benefits to customers, which might not otherwise be available to them. These incremental benefits are the result of outperforming benchmarks that are concurrent with actual performance. Results are not measured in comparison to past performance because the market for natural gas and pipeline services changes over time. Likewise, LG&E's PBR mechanism does not diminish service reliability. The continuation of the PBR mechanism as proposed in this filing will encourage LG&E to continue to optimize its gas supply portfolio and produce benefits for customers.

LG&E used four principles in designing its gas supply cost PBR mechanism, and they continue to remain applicable. These principles are:

- A cost/benefit test;
- A least cost acquisition standard;
- The maintenance of reliable service; and
- An integrated behavior standard.

Cost/benefit test: By specifying benchmarks, LG&E's gas supply cost PBR mechanism establishes the cost/benefit test to determine the effectiveness of LG&E's procurement activity. The benchmarks which are established prior to the beginning of the operation of the PBR mechanism are objective benchmarks that are intended to incent the utility to perform as desired. The benchmarks provide a meaningful framework for measuring and reviewing performance. LG&E's performance is measured by comparing actual costs to benchmark costs to determine the savings or expenses resulting under the PBR mechanism.

Because it is not possible to determine what LG&E would have done in the absence of the PBR mechanism and the incentives it provides, it is necessary that the PBR mechanism be properly constructed. The benchmarks incorporated in the PBR mechanism can be used as a surrogate for the results that LG&E would have achieved in the absence of the incentives that the PBR mechanism provides. These benchmarks encourage and set expectations for the behavior that must occur to achieve customer benefits that surpass the prudence standard.

Least cost acquisition standard: The goal of least cost acquisition is one of the most important reasons to encourage the use of gas supply cost PBR mechanisms in general, and LG&E's PBR mechanism specifically. LG&E's gas supply cost PBR mechanism incorporates a "least cost acquisition" standard in purchasing natural gas supplies and pipeline transportation services. The sharing mechanism of LG&E's PBR mechanism encourages it to purchase low cost and reliable gas supplies and pipeline transportation services from among all the supplies and pipeline transportation services available to LG&E.

The Commission supplemented the regulatory guidance originally embodied in Administrative Case No. 297 when, in Administrative Case No. 384, the Commission stated that LDCs "should maintain their objective of procuring wholesale natural gas supplies at market clearing prices, within the context of maintaining a balanced natural gas supply portfolio that balances the objectives of obtaining low cost gas supplies, minimizing price volatility, and maintaining reliability of supply."[2] LG&E's gas supply cost PBR mechanism encourages LG&E to meet and achieve these goals.

Maintenance of reliable service: LG&E's gas supply cost PBR mechanism recognizes the importance of reliability in contracting for and managing its natural gas supply and pipeline service arrangements. The benchmarks incorporated into LG&E's gas supply cost PBR mechanism support a portfolio that provides reliable yet flexible supply management. LG&E's PBR mechanism does not provide incentives that could encourage it to take risks that reduce reliability in order to achieve lower costs.

Integrated behavioral standard: A PBR mechanism must be constructed so as to ensure that it encourages and incents the appropriate behavior in creating cost savings for customers and rewards the LDC for the risks it has undertaken in designing and optimizing its gas supply portfolio to produce lower costs. An integrated behavioral standard requires that a PBR mechanism be well reasoned, inclusive, and balanced. An integrated behavioral standard recognizes that a PBR mechanism should be designed to minimize all gas supply cost elements over the course of the annual contracting cycle, not simply to minimize a discrete component or components of gas supply costs. Likewise, the components of the PBR mechanism should be balanced so that one objective (such as least cost) is not encouraged to the detriment of other equally important objectives (such as reliability).

LG&E's PBR mechanism is well reasoned in that it contains objective and meaningful benchmarks. LG&E's PBR mechanism is balanced and does not encourage savings under one component over savings under another component. This is supported through the application of uniform sharing percentages across all components of the PBR mechanism.

Designing a flexible PBR mechanism that is capable of providing meaningful incentives over the term of the PBR mechanism is essential. A narrow, rigidly constructed PBR

[2] See Order in Administrative Case No. 384 dated July 17, 2001, at p. 18.

mechanism could ultimately result in higher gas supply costs and the diminishment of reliability. LG&E's PBR mechanism reflects the current market and regulatory environment. It does not, and should not, look backwards to assess current results in comparison to those that occurred in a different time and different marketplace. LG&E's PBR mechanism does not encourage a rigid, narrow approach to contracting for gas supply or related services. Instead, it provides LG&E with the flexibility to explore pricing arrangements that may become available in the evolving marketplace.

The purpose of any incentive mechanism, such as LG&E's gas supply PBR mechanism, is to encourage and reward a desired behavior. Any changes to the incentive mechanism will result in behavioral changes. Similarly, absent a PBR mechanism, behavior will also change. For that reason, any modifications to LG&E's PBR mechanism should encourage and reward desired behavior, preserve the reliability of gas supply, yield least cost gas supply, and be integrated. Without considering these standards, modifications to the benchmarks could have unintended behavioral results that adversely impact benefits accruing to customers.

ASSESSMENT OF GAS SUPPLY COST PBR MECHANISM BY COMPONENT

LG&E's gas supply cost PBR mechanism is comprehensive. The three basic components of LG&E's gas supply cost PBR mechanism are the Gas Acquisition Index Factor ("GAIF"), the Transportation Index Factor ("TIF"), and the Off-System Sales Index Factor ("OSSIF").

The sum of the savings or expenses from these three components is subject to an asymmetrical sharing mechanism (which includes a threshold) that allocates any savings or expenses between shareholders and customers. Additionally, customers realize all of the benefits from the gas supply cost PBR mechanism during the PBR period.[3] After the PBR period, a recovery factor is placed into effect the following February so that LG&E

may recover any savings which it has achieved from, or refund any expenses to, customers.

Gas Acquisition Index Factor ("GAIF")

The GAIF component of the gas supply cost PBR mechanism benchmarks LG&E's actual commodity costs against a calculated benchmark representative of the market price of gas by using various industry-recognized price postings as applied to total actual purchase volumes. The GAIF benchmark is reflective of the fact that LG&E purchases natural gas supplies from a number of supply zones on different pipelines at various times under a variety of pricing arrangements.

Currently, LG&E's supply area natural gas purchases for transportation by Texas Gas Transmission LLC ("Texas Gas" or "TGT") are benchmarked in three zones on Texas Gas's system: Zone SL, Zone 1, and Zone 4. It is in these zones that LG&E currently has firm pipeline receipt point entitlements. LG&E also has firm transportation capacity entitlements on the system of Tennessee Gas Pipeline Company, LLC ("Tennessee" or "TGPL"). LG&E currently has firm pipeline receipt point entitlements in Tennessee's Zone 0 supply area. LG&E can also buy natural gas volumes for delivery to its city gate.

The indices used by LG&E in its gas supply cost PBR mechanism are published by *Natural Gas Week*, *Platts Gas Daily*, and *Platts Inside FERC's Gas Market Report*. These three publications represent recognized sources of natural gas pricing information available in the industry; these indices provide pricing data specifically related to the supply zones accessed by LG&E. LG&E does not (and is not currently required to) provide any pricing information to these publications. Therefore, LG&E does not influence the determination of these indices.

Importantly, LG&E's PBR mechanism encourages it to optimize its purchases across the purchase locations accessible by LG&E. The GAIF benchmark is constructed to

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[3] A PBR period covers the 12 months from November 1 through October 31 of the following calendar year

recognize that LG&E may purchase natural gas supplies from a variety of supply zones throughout the month. As a result, the PBR mechanism encourages LG&E to optimize its purchase of natural gas from the lowest priced supply zone(s).

LG&E's benchmarking mechanism encourages and allows it the opportunity for reward if it manages gas purchases to achieve actual gas costs less than the benchmark. LG&E is encouraged to enter into a variety of reliable and flexible gas supply contracting agreements in order to optimize performance.

Historical Performance

Under the GAIF component of the gas supply cost PBR mechanism, LG&E has achieved total savings related to its gas commodity costs of $11,094,635, broken down as follows: $1,247,474 for the 12 months ended October 31, 2016; $1,747,156 for the 12 months ended October 31, 2017; $3,560,780 for the 12 months ended October 31, 2018; and $4,539,225 for the 12 months ended October 31, 2019.

Transportation Index Factor ("TIF")

The TIF component of the gas supply cost PBR mechanism benchmarks LG&E's actual pipeline transportation costs against the transportation rates filed with and approved by the Federal Energy Regulatory Commission ("FERC") by either Texas Gas or Tennessee, as applicable. The TIF benchmark is reflective of the manner in which interstate pipelines contract for firm pipeline transportation service.

LG&E's transportation costs include firm services purchased from Texas Gas and Tennessee that help ensure that LG&E has reliable natural gas supplies to serve the requirements of its firm customers. For firm services, pipelines generally charge a two-part demand/commodity transportation rate which is established and regulated by FERC. These FERC-approved tariff rates provide a fair and objective benchmark against which

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and coincides with gas industry contracting practices.

to measure the savings achieved by LG&E as a result of the gas supply cost PBR mechanism. In fact, interstate pipeline rates have recently been re-examined by FERC in order to determine if the rates of interstate pipelines are just and reasonable in light of the income tax reductions provided by the Tax Cuts and Jobs Act of 2017 and FERC's income tax allowance policies.[4]

In some circumstances, it may be possible to extract a discount from an interstate pipeline based upon market conditions, capacity availability, type of service, or a particular competitive situation. However, interstate pipelines are not required to discount their capacity – and may decline to do so even if they continue to have capacity available which remains unsold at the FERC-approved tariff rate. As circumstances evolve over time, the discounts that pipelines are willing to offer may also change. Therefore, the idea that through continuous improvement the LDC can continually negotiate lower discounted transportation rates is fallacious. However, LG&E's PBR mechanism does encourage it to secure discounts when available in order to provide lower gas costs for customers.

LG&E's gas transportation cost benchmarking mechanism focuses on all pipeline transportation costs, not just some costs. LG&E's mechanism adopts an integrated behavioral approach, which encourages it to reduce gas transportation costs by seeking out discounts, renegotiating pipeline contracts, or releasing capacity. Without diminishing reliability, LG&E's benchmarking mechanism encourages it to reduce transportation costs by taking advantage of shorter-term capacity release opportunities and locking in longer-term benefits for customers.

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[4] See Texas Gas's Order in FERC Docket No. RP19-74 dated April 10, 2019, and Tennessee's Order in FERC Docket No. RP19-351 dated May 24, 2019. In the case of Texas Gas, FERC found that Texas Gas's financial data did not support further investigation into Texas Gas's rates, and Texas Gas's rates remain unchanged. In the case of Tennessee, FERC approved a settlement among Tennessee and its customers to resolve all income tax issues and provide for lower pipeline rates as follows: an immediate reduction of 8.5% effective November 1, 2019, followed by three further reductions: a 2% reduction effective November 1, 2020, a 2% reduction effective November 1, 2021, and a 1% reduction effective November 1, 2022. All reductions are expressed as a percentage of the Tennessee rates in effect as of November 1, 2018.

Historical Performance

Under the TIF component of the gas supply cost PBR mechanism, LG&E has achieved total savings related to its pipeline transportation costs of $8,885,393, broken down as follows: $2,586,483 for the 12 months ended October 31, 2016; $1,922,234 for the 12 months ended October 31, 2017; $1,920,084 for the 12 months ended October 31, 2018; and $2,456,592 for the 12 months ended October 31, 2019.

Off-System Sales Index Factor ("OSSIF")

The OSSIF component of the gas supply cost PBR mechanism benchmarks LG&E's off-system sales against the out-of-pocket costs incurred to make such sales. The OSSIF benchmark is reflective of the manner in which LG&E makes off-system sales transactions and objectively measures savings achieved by LG&E as a result of these opportunistic transactions.

An off-system sale is the resale of natural gas supplies (or services) to customers other than LG&E's retail customers. Such parties could include marketers, producers, end-users not on LG&E's system, or other LDCs.

Historical Performance

Under the OSSIF component of the gas supply cost PBR mechanism, LG&E has achieved total savings related to its gas commodity costs of $746,437, broken down as follows: $18,300 for the 12 months ended October 31, 2016; $196,921 for the 12 months ended October 31, 2017; $381,716 for the 12 months ended October 31, 2018; and $149,500 for the 12 months ended October 31, 2019.

Summary

In order to maximize savings under its gas supply cost PBR mechanism, LG&E continues to investigate and initiate new purchasing strategies, respond to changing market conditions, and explore gas supply alternatives and opportunities than it might not otherwise have. LG&E has sought to achieve savings under the GAIF portion of the gas supply cost PBR mechanism by optimizing and managing natural gas supplies. LG&E has sought to achieve savings under the TIF portion of the gas supply cost PBR mechanism by seeking out pipeline discounts and optimizing pipeline capacity. LG&E has sought to achieve savings under the OSSIF portion of the gas supply cost PBR mechanism by making off-system transactions to creditworthy third parties when the opportunity arises.

PROPOSED EXTENSION OF AND MODIFICATIONS TO GAS SUPPLY COST PBR MECHANISM

LG&E's current gas supply cost PBR mechanism is for a term of five years. This report shows that during Years 19, 20, 21, and 22 (the first four years covered by the current mechanism), LG&E's gas supply cost PBR mechanism resulted in savings for customers. Therefore, LG&E proposes to extend its gas supply cost PBR mechanism, including the limited modifications proposed herein, for an additional term of five years, that is, through October 31, 2025. Such a term will encourage LG&E to achieve meaningful benefits for customers because it will allow for a longer-term focus on performance optimization. The market for natural gas and interstate pipeline services is a continually evolving one. LG&E's gas supply strategies have evolved and must continue to evolve with the market in order to continue to achieve positive results under the PBR mechanism. LG&E's PBR mechanism is generally flexible enough to allow it to respond appropriately.

LG&E is proposing to modify the GAIF component of the PBR mechanism to include the New York Mercantile Exchange ("NYMEX") settled closing price in each of the Supply

Area Indices ("SAIs"). This additional benchmark would expand LG&E's gas supply contracting opportunities similar to those provided for in the PBR mechanism of Atmos Energy Corporation ("Atmos") which also includes NYMEX as a benchmark. LG&E is also updating its tariffs to reflect changes in the names of certain indices used in LG&E's PBR mechanism, but none of the name changes reflect a locational or structural change in the index being used to benchmark gas purchases, as follows:

- One of the postings published by *Natural Gas Week* has been renamed as follows:
  - For use in the determination of the Supply Area Index ("SAI") for Tennessee Zone 0 (TGPL-0), "Texas: Gulf Coast, Onshore, Delivered to Pipeline" is now "Texas, Central, Onshore, Delivered to Pipeline"

- Several of the postings published by *Platts Gas Daily* have been renamed as follows:
  - For use in the determination of the SAI for Texas Gas Zone SL (TGT-SL), "Louisiana – Onshore South, Texas Gas, Zone SL" is now "Louisiana/Southeast, Tx. Gas, zone SL"
  - For use in the determination of the SAI and the Delivery Area Index ("DAI") for Texas Gas Zone 1 (TGT-1), "East Texas – North Louisiana Area, Texas Gas, zone 1" is now "Louisiana/Southeast, Tx. Gas, zone 1"
  - For use in the determination of the SAI for Tennessee Zone 0 (TGPL-0), "South – Corpus Christi, Tennessee, zone 0" is now "East Texas, Tennessee, zone 0"
  - For use in the determination of the SAI for Tennessee Zone 1 (TGPL-1), "Louisiana – Onshore South, Tennessee, 500 Leg" is now "Louisiana/Southeast, Tennessee, 500 Leg"

- Several of the postings published by *Platts Inside FERC's Gas Market Report* have been renamed as follows
  - For use in the determination of the SAI for Texas Gas Zone SL (TGT-SL), "Texas Gas, Zone SL" is now "Louisiana/Southeast, Texas Gas, zone SL"
  - For use in the determination of the SAI for Texas Gas Zone 1 (TGT-1), "Texas Gas, Zone 1" is now "Louisiana/Southeast, Texas Gas, zone 1"
  - For use in the determination of the SAI for Texas Gas Zone 4 (TGT-4), "Northeast, Lebanon Hub" is now "Appalachia, Lebanon Hub"
  - For use in the determination of the SAI for Tennessee Zone 0 (TGPL-0), "Tennessee, Texas, zone 0" is now "East Texas, Tennessee, zone 0"
  - For use in the determination of the SAI for Tennessee Zone 1 (TGPL-1), "Tennessee, Louisiana, 500 leg" is now "Louisiana/Southeast, Tennessee, Louisiana, 500 Leg"

Each of these name changes were previously reported in LG&E's Annual Report for Year 19 covering the 12 months ended October 31, 2016, in accordance with LG&E's application in Case No. 2014-00476.

LG&E is not proposing any changes to the TIF component of the PBR mechanism.

LG&E is not proposing any substantive changes to the OSSIF component of the PBR mechanism. LG&E is proposing to clarify that off-system sales and storage service transactions made for operational or administrative reasons are not subject to benchmarking under the OSSIF component of the PBR mechanism.

In Case No. 2014-00476, LG&E proposed to change the PBR sharing mechanism then in effect. At the time, all savings (or expenses) up to 4.5% of the benchmarked gas costs were subject to a 25/75 Company/Customer sharing percentage with amounts in excess of 4.5% of the benchmarked gas costs shared at the 50/50 level. In that case, LG&E proposed a more balanced sharing of risks and rewards, that is, a 30/70 Company/Customer sharing for all amounts up to 2.0% of the benchmarked gas costs and any amounts in excess of 2.0% of the benchmarked gas costs shared at the 50/50 level. That proposed sharing mechanism was (and is currently) the same as the sharing mechanism approved for Atmos and Columbia Gas of Kentucky ("Columbia") in their respective PBR mechanisms. Instead of the sharing mechanism proposed by LG&E in that case, the Commission approved a sharing mechanism with a 25/75 Company/Customer sharing for all savings (and expenses) up to 3.0% of the benchmarked gas costs and any amounts in excess of 3.0% shared at the 50/50 level. In approving that change, the Commission stated that "a change from the current sharing levels to a 70/30 sharing of variances from 0 to 2 percent is too abrupt."[5] LG&E is requesting in this application to complete the transition to the sharing mechanism originally proposed by LG&E in Case No. 2014-00476, specifically, a 30/70 Company/Customer sharing for all amounts up to 2.0% of the benchmarked gas costs and with any amounts in excess of 2.0% of the benchmarked gas costs shared at the 50/50 level. LG&E's proposed sharing mechanism will better reflect the risks inherent in its PBR mechanism when compared to the risks found in the PBR mechanisms of Atmos and Columbia.

LG&E also requests that the Commission authorize the extension and modification of its PBR mechanism by no later than June 1, 2020. Authorization by that date will allow LG&E adequate time to adjust its gas supply portfolio and supply strategies in response to LG&E's proposed modifications to the PBR mechanism prior to the new mechanism becoming effective November 1, 2020.

Lastly, LG&E proposes to file a report and assessment of the gas supply cost PBR mechanism that becomes effective November 1, 2020, if approved, according to a timeline that is the same as that included in its current PBR mechanism, that is, within sixty (60) days of October 31, 2024. LG&E will make any recommended modifications to the gas supply cost PBR mechanism in that report, and the Commission will review and act upon any proposed changes to the mechanism at that time. This procedure will add certainty to the nature of the mechanism by establishing a review and approval process with a known timeline.

[5] See Order in Case No 2014-00476 dated June 30, 2015 at p. 6.

Appendix A

Summary of Gas Supply Cost Performance-Based Ratemaking Results

By PBR Year

	(1)	(2)	(3)	(4)	(5)
Year	*Total Savings*	*Customer Portion*	*Shareholder Portion*	*Total Actual Gas Supply Costs*	*Percentage By Year*
					(1) / (4)
19	*$3,852,257*	*$2,651,816*	*$1,200,441*	*$96,758,276*	*3.98%*
20	*$3,866,311*	*$2,770,344*	*$1,095,967*	*$111,625,084*	*3.46%*
21	*$5,862,580*	*$3,865,848*	*$1,996,732*	*$124,607,779*	*4.70%*
22	*$7,145,317*	*$4,432,832*	*$2,712,485*	*$114,689,853*	*6.23%*
	$20,726,465	*$13,720,840*	*$7,005,625*	*$447,680,992*	*4.63%*

*** Savings/Expenses are shared 25% to Company and 75% to Customer up to 3.0% of benchmarked costs; above 3.0% savings are shared 50%/50%.*

Appendix B

Summary of Gas Supply Cost Performance-Based Ratemaking Activity

For Year 19

(November 1, 2015 through October 31, 2016)

	PBR-GAIF	*PBR-TIF*	*PBR-OSSIF*	*Total*
Nov. 2015	*$151,214*	*$201,466*	*$0*	*$352,680*
Dec.	*($99,348)*	*$196,178*	*$0*	*$96,830*
Jan. 2016	*$204,598*	*$200,412*	*$0*	*$405,010*
Qtr. Subtotal	*$256,464*	*$598,056*	*$0*	*$854,520*
Feb.	*($33,352)*	*$196,706*	*$0*	*$163,354*
Mar.	*$45,628*	*$202,806*	*$0*	*$248,434*
Apr.	*$4,141*	*$205,692*	*$0*	*$209,833*
Qtr. Subtotal	*$16,417*	*$605,204*	*$0*	*$621,621*
May	*($6,963)*	*$218,627*	*$0*	*$211,664*
Jun.	*$623,174*	*$231,565*	*$0*	*$854,739*
Jul.	*($23,023)*	*$233,637*	*$0*	*$210,614*
Qtr. Subtotal	*$593,188*	*$683,829*	*$0*	*$1,277,017*
Aug.	*$170,441*	*$233,967*	*$0*	*$404,408*
Sep.	*$147,791*	*$231,564*	*$18,300*	*$397,655*
Oct.	*$63,173*	*$233,863*	*$0*	*$297,036*
Qtr. Subtotal	*$381,405*	*$699,394*	*$18,300*	*$1,099,099*
Total	*$1,247,474*	*$2,586,483*	*$18,300*	*$3,852,257*

Summary of Gas Supply Cost Performance-Based Ratemaking Activity

For Year 20

(November 1, 2016 through October 31, 2017)

	PBR-GAIF	*PBR-TIF*	*PBR-OSSIF*	*Total*
Nov. 2016	*$217,354*	*$166,932*	*$0*	*$384,286*
Dec.	*$786,840*	*$159,432*	*$0*	*$946,272*
Jan. 2017	*$340,973*	*$159,432*	*$0*	*$500,405*
Qtr. Subtotal	*$1,345,167*	*$485,796*	*$0*	*$1,830,963*
Feb.	*$100,735*	*$159,432*	*$0*	*$260,167*
Mar.	*$98,188*	*$160,982*	*$196,921*	*$456,091*
Apr.	*($15,505)*	*$159,432*	*$0*	*$143,927*
Qtr. Subtotal	*$183,418*	*$479,846*	*$196,921*	*$860,185*
May	*($1,383)*	*$159,432*	*$0*	*$158,049*
Jun.	*$125,101*	*$159,432*	*$0*	*$284,533*
Jul.	*($9,815)*	*$159,432*	*$0*	*$149,617*
Qtr. Subtotal	*$113,903*	*$478,296*	*$0*	*$592,199*
Aug.	*$22,286*	*$159,432*	*$0*	*$181,718*
Sep.	*$44,486*	*$159,432*	*$0*	*$203,918*
Oct.	*$37,896*	*$159,432*	*$0*	*$197,328*
Qtr. Subtotal	*$104,668*	*$478,296*	*$0*	*$582,964*
Total	*$1,747,156*	*$1,922,234*	*$196,921*	*$3,866,311*

Summary of Gas Supply Cost Performance-Based Ratemaking Activity

For Year 21

(November 1, 2017 through October 31, 2018)

	PBR-GAIF	*PBR-TIF*	*PBR-OSSIF*	*Total*
Nov. 2017	*$419,557*	*$159,432*	*$0*	*$578,989*
Dec.	*$252,222*	*$159,432*	*$0*	*$411,654*
Jan. 2018	*$1,111,242*	*$159,432*	*$381,716*	*$1,652,390*
Qtr. Subtotal	*$1,783,021*	*$478,296*	*$381,716*	*$2,643,033*
Feb.	*$411,142*	*$159,432*	*$0*	*$570,574*
Mar.	*$95,290*	*$159,432*	*$0*	*$254,722*
Apr.	*($6,710)*	*$166,332*	*$0*	*$159,622*
Qtr. Subtotal	*$499,722*	*$485,196*	*$0*	*$984,918*
May	*$161,223*	*$159,432*	*$0*	*$320,655*
Jun.	*$138,894*	*$159,432*	*$0*	*$298,326*
Jul.	*$182,920*	*$159,432*	*$0*	*$342,352*
Qtr. Subtotal	*$483,037*	*$478,296*	*$0*	*$961,333*
Aug.	*$331,489*	*$159,432*	*$0*	*$490,921*
Sep.	*$117,033*	*$159,432*	*$0*	*$276,465*
Oct.	*$346,478*	*$159,432*	*$0*	*$505,910*
Qtr. Subtotal	*$795,000*	*$478,296*	*$0*	*$1,273,296*
Total	*$3,560,780*	*$1,920,084*	*$381,716*	*$5,862,580*

Summary of Gas Supply Cost Performance-Based Ratemaking Activity

For Year 22

(November 1, 2018 through October 31, 2019)

	PBR-GAIF	*PBR-TIF*	*PBR-OSSIF*	*Total*
Nov. 2018	*$1,531,382*	*$204,716*	*$149,500*	*$1,885,598*
Dec.	*$493,237*	*$204,716*	*$0*	*$697,953*
Jan. 2019	*$654,858*	*$204,716*	*$0*	*$859,574*
Qtr. Subtotal	*$2,679,477*	*$614,148*	*$149,500*	*$3,443,125*
Feb.	*$191,497*	*$204,716*	*$0*	*$396,213*
Mar.	*$108,525*	*$204,716*	*$0*	*$313,241*
Apr.	*$113,903*	*$204,716*	*$0*	*$318,619*
Qtr. Subtotal	*$413,925*	*$614,148*	*$0*	*$1,028,073*
May	*$66,887*	*$204,716*	*$0*	*$271,603*
Jun.	*$257,385*	*$204,716*	*$0*	*$462,101*
Jul.	*$210,434*	*$204,716*	*$0*	*$415,150*
Qtr. Subtotal	*$534,706*	*$614,148*	*$0*	*$1,148,854*
Aug.	*$189,632*	*$204,716*	*$0*	*$394,348*
Sep.	*$431,676*	*$204,716*	*$0*	*$636,392*
Oct.	*$289,809*	*$204,716*	*$0*	*$494,525*
Qtr. Subtotal	*$911,117*	*$614,148*	*$0*	*$1,525,265*
Total	*$4,539,225*	*$2,456,592*	*$149,500*	*$7,145,317*

Adjustment Clause **PBR**

Experimental Performance Based Rate Mechanism

APPLICABLE

To all gas sold.

RATE MECHANISM

The monthly amount computed under each of the rate schedules to which this Performance Based Ratemaking Mechanism is applicable shall be increased or decreased by the Performance Based Rate Recovery Component **(PBRRC)** at a rate per 100 cubic feet (Ccf) of monthly gas consumption. Demand costs and commodity costs shall be accumulated separately and included in the Pipeline Supplier's Demand Component and the Gas Supply Cost Component of the Gas Supply Clause (GSC), respectively. The PBRRC shall be determined for each 12-month period ended October 31 during the effective term of this experimental performance based ratemaking mechanism, which 12-month period shall be defined as the PBR period.

The PBRRC shall be computed in accordance with the following formula:

$$\mathbf{PBRRC} = \frac{\mathbf{CSPBR + BA}}{\mathbf{ES}}$$

Where:

ES = Expected Ccf sales, as reflected in Company's GSC filing for the upcoming 12-month period beginning February 1.

CSPBR = Company Share of Performance Based Ratemaking Mechanism savings or expenses. The CSPBR shall be calculated as follows:

$$\mathbf{CSPBR = TPBRR \times ACSP}$$

Where:

TPBRR = Total Performance Based Ratemaking Results. The TPBRR shall be savings or expenses created during the PBR Period. TPBRR shall be calculated as follows:

$$\mathbf{TPBRR = (GAIF + TIF + OSSIF)}$$

Where:

GAIF = Gas Acquisition Index Factor. The GAIF shall be calculated by comparing the total annual Benchmark Gas Costs **(BGC)** for system supply natural gas purchases for the PBR period to the total annual Actual Gas Costs **(AGC)** for system supply natural gas purchases during the same period to determine if any Shared Expenses or Shared Savings exist.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: Effective with Service Rendered On And After May 1, 2019

ISSUED BY: /s/ Robert M. Conroy, Vice President
State Regulation and Rates
Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2018-00295 dated April 30, 2019

The BGC shall include the benchmark component as follows:

BGC = TABMGCC

Where:

TABMGCC represents the Total Annual Benchmark Gas Commodity Costs and is the annual sum of the monthly Benchmark Gas Commodity Costs **(BMGCC)** of gas purchased for system supply; and

BMGCC represents Benchmark Gas Commodity Costs and shall be calculated on a monthly basis and accumulated for the PBR period. BMGCC shall be calculated as follows:

BMGCC = Sum {[SZFQE%i x (APV - PEFDCQ)x SAIi]} + [PEFDCQ x DAI]

Where:

SZFQE% is the Supply Zone Firm Quantity Entitlement Percentage derived from Company's firm seasonal entitlements by pipeline and by zone for which indices are posted. The seasonal percentages represent the pro-rata portion of Company's firm lateral and mainline receipt point quantity entitlements by zone for each transportation contract by pipeline.

i represents each supply area.

APV is the actual purchased volumes of natural gas for system supply for the month. The APV shall include purchases necessary to cover retention volumes required by the pipeline as fuel.

PEFDCQ are the Purchases In Excess of Firm Daily Contract Quantities delivered to Company's city gate. Firm Daily Contract Quantities are the maximum daily contract quantities which Company can deliver to its city gate under its various firm transportation agreements and arrangements.

SAI is the Supply Area Index factor to be established for each supply area in which Company may have firm transportation entitlements used to transport its natural gas purchases and for which price postings are available. The five supply areas are TGT-SL (Texas Gas Transmission - Zone SL), TGT-1 (Texas Gas Transmission - Zone 1), TGT-4 (Texas Gas Transmission – Zone 4), TGPL-0 (Tennessee Gas Pipeline - Zone 0), and TGPL-1 (Tennessee Gas Pipeline - Zone 1).

Experimental Performance Based Rate Mechanism

The monthly SAI for TGT-SL, TGT-1, TGT-4, TGPL-0 and TGPL-1 shall be calculated using the following formula:

SAI = [I(1) + I(2) + I(3) + I(4)] / 4~~3~~ T

Where:
I represents each index reflective of both supply area prices and price changes throughout the month in these various supply areas.

The indices for each supply zone are as follows:

SAI (TGT-SL)

I(1) is the average of weekly *Natural Gas Week* Gas Price Report postings for Louisiana, Gulf Coast, Onshore as Delivered to Pipeline. T

I(2) is the *Platts Gas Daily* midpoint postings for Louisiana/~~ - Onshore ~~Southeast, T~~e~~x.~~as~~ Gas, z~~Z~~one SL averaged for the month. T

I(3) is the *Platts Inside FERC's Gas Market Report* first-of-the-month posting for Louisiana/Southeast, Texas Gas, z~~Z~~one SL. T

I(4) is the *New York Mercantile Exchange* Settled Closing Price for the prompt month. N

SAI (TGT-1)

I(1) is the average of weekly *Natural Gas Week* Gas Price Report postings for Louisiana, North as Delivered to Pipeline. T

I(2) is the *Platts Gas Daily* midpoint postings for ~~East Texas - North ~~Louisiana/Southeast~~ Area~~, T~~e~~x.~~as~~ Gas, zone 1 averaged for the month. T

I(3) is the *Platts Inside FERC's Gas Market Report* first-of-the-month posting for Louisiana/Southeast,Texas Gas, z~~Z~~one 1. T

I(4) is the *New York Mercantile Exchange* Settled Closing Price for the prompt month. N

SAI (TGT-4)

I(1) is the average of weekly *Natural Gas Week* postings for Spot Prices ~~on Interstate Pipeline Systems~~ for Appalachia, Lebanon Hub. T T

I(2) is the *Platts Gas Daily* midpoint postings for Appalachia, ~~–~~Lebanon Hub averaged for the month.

I(3) is the *Platts Inside FERC's* ~~-~~ *Gas Market Report* first-of-the-month posting for Appalachia~~Northeast~~, Lebanon Hub. T

I(4) is the *New York Mercantile Exchange* Settled Closing Price for the prompt month. N

SAI (TGPL-0)

I(1) is the average of weekly *Natural Gas Week* Gas Price Report postings for Texas, Central~~Gulf Coast~~, Onshore Delivered to Pipeline. T T

I(2) is the *Platts Gas Daily* midpoint postings for East Texas~~South – Corpus Christi~~, Tennessee, z~~Z~~one 0 averaged for the month. T T

I(3) is the *Platts Inside FERC's* ~~-~~ *Gas Market Report* first-of-the-month posting for East Texas, Tennessee, ~~Texas,~~ z~~Z~~one 0. T T

I(4) is the *New York Mercantile Exchange* Settled Closing Price for the prompt month. N

SAI (TGPL-1)

I(1) is the average of weekly *Natural Gas Week* Gas Price Report postings for Louisiana, Gulf Coast, Onshore as Delivered to Pipeline. T

I(2) is the *Platts Gas Daily* midpoint postings for Louisiana/~~– Onshore~~ Southeast, Tennessee, 500 Leg averaged for the month. T

I(3) is the *Platts Inside FERC's* ~~-~~ *Gas Market Report* first-of-the-month posting for Louisiana/Southeast, Tennessee, Louisiana, 500 L~~l~~eg. T

I(4) is the *New York Mercantile Exchange* Settled Closing Price for the prompt month. N

~~**DAI (TGT-4) and (TGPL-2)**~~

T

~~**DAI** is the Delivery Area Index to be established for **PEFDCQ** made by Company on the day(s) when Company has arranged for deliveries to Company's city gate that are in excess of its total firm pipeline quantity entitlements.~~

DATE OF ISSUE: ~~May 14~~December 27, 2019

DATE EFFECTIVE: Effective with Service Rendered
On And After November 1, 20~~15~~20

ISSUED BY: /s/ Robert M. Conroy, Vice President
State Regulation and Rates

Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. ~~2014-00476~~2019-00437 dated ~~June 30, 2015~~XXXX

DAI (TGT-4) and (TGPL-2) T

DAI is the Delivery Area Index to be established for **PEFDCQ** made by Company on the day(s) when Company has arranged for deliveries to Company's city gate that are in excess of its total firm pipeline quantity entitlements. T T T

The daily DAI applicable to the daily purchases made for city-gate delivery shall be the higher of the following, either

DAI = DAI (TGT-1) / (1 – FR%) + CCS + DDCS

or

DAI = DAI (TGT-4) / (1 – FR%) + CCS + DDCS

Where:
DAI (TGT-1) represents the ~~highest daily~~ midpoint posting by *Platts Gas Daily* for Louisiana/Southeast~~East Texas – North Louisiana Area~~, T~~e~~x.~~as~~ Gas, zone 1. T T

DAI (TGT-4) represents the ~~highest daily~~ midpoint posting by *Platts Gas Daily* for Appalachia, ~~–~~ Lebanon Hub. T

FR% is the tariffed Fuel Retention Percentage under Texas Gas Transmission, LLC's Rate NNS.

CCS are the tariffed NNS Commodity Charge and Surcharges under Texas Gas Transmission, LLC's Rate NNS.

DDCS are the tariffed Daily Demand Charge and Surcharges under Texas Gas Transmission, LLC's Rate NNS.

If an index ceases to exist or fails to report, the Company may use a suitable replacement index and report that change in writing to the Commission in the applicable quarterly report. If the Company elects not to select a replacement index, the average is adjusted accordingly.

AGC represents Company's total annual Actual Gas Costs of natural gas purchased for system supply and is equal to the total monthly actual gas commodity costs (excluding any supply reservation fees) plus the gains and/or losses from the use of financial hedging instruments and the financial transaction costs associated with such instruments paid by Company to its suppliers accumulated for the PBR period. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

~~2014-00476~~2019-00437 dated ~~June 30, 2015~~XXXX

To the extent that AGC exceeds BGC for the PBR period, then the GAIF Shared Expenses shall be computed as follows:

Shared Expenses = AGC - BGC

To the extent that AGC is less than BGC for the PBR period, then the GAIF Shared Savings shall be computed as follows:

Shared Savings = BGC – AGC

<u>TIF</u>

TIF = Transportation Index Factor. The Transportation Index Factor shall be calculated by comparing the Total Annual Benchmark Monthly Gas Transportation Costs **(TABMGTC)** of natural gas transportation services during the PBR period, to the Total Annual Actual Gas Transportation Costs **(TAAGTC)** applicable to the same period to determine if any Shared Expenses or Shared Savings exist.

The Total Annual Benchmark Monthly Gas Transportation Costs **(TABMGTC)** are calculated as follows:

TABMGTC = Annual Sum of Monthly BMGTC

Where:
BMGTC is the Benchmark Monthly Gas Transportation Costs which include both demand and volumetric costs associated with natural gas pipeline transportation services. The BMGTC shall be accumulated for the PBR period and shall be calculated as follows:

BMGTC = Sum [BM(TGT) + BM(TGPL) + BM(PPL)]

Where:
BM(TGT) is the benchmark associated with Texas Gas Transmission, LLC.

BM(TGPL) is the benchmark associated with Tennessee Gas Pipeline Company, LLC.

BM(PPL) is the benchmark associated with a proxy pipeline. The appropriate benchmark, which will be determined at the time of purchase, will be used to benchmark purchases of transportation capacity from non-traditional sources.

The benchmark associated with each pipeline shall be calculated as follows:

BM(TGT) = (TPDR x DQ) + (TPCR x AV) + S&DB

BM(TGPL) = (TPDR x DQ) + (TPCR x AV) + S&DB

BM(PPL) = (TPDR x DQ) + (TPCR x AV) + S&DB

Where:
TPDR is the applicable Tariffed Pipeline Demand Rate.

DQ is the Demand Quantities contracted for by Company from the applicable transportation provider.

TPCR is the applicable Tariffed Pipeline Commodity Rate.

AV is the Actual Volumes delivered at Company's city-gate by the applicable transportation provider for the month.

S&DB represents Surcharges, Direct Bills and other applicable amounts approved by the Federal Energy Regulatory Commission (FERC). Such amounts are limited to FERC-approved charges such as surcharges, direct bills, cashouts, take-or-pay amounts, Gas Supply Realignment and other Order 636 transition costs.

The Total Annual Actual Gas Transportation Costs (**TAAGTC)** paid by Company for the PBR period shall include both demand and volumetric costs associated with natural gas pipeline transportation services as well as all applicable FERC-approved surcharges, direct bills and cash-outs included in S&DB, plus the gains and/or losses from the use of financial hedging instruments and the financial transaction costs associated with such instruments. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

To the extent that TAAGTC exceeds TABMGTC for the PBR period, then the TIF Shared Expenses shall be computed as follows:

Shared Expenses = TAAGTC – TABMGTC

To the extent that TAAGTC is less than TABMGTC for the PBR period, then the TIF Shared Savings shall be computed as follows:

Experimental Performance Based Rate Mechanism

Shared Savings = TABMGTC - TAAGTC

Should one of Company's pipeline transporters file a rate change effective during any PBR period and bill such proposed rates subject to refund, the period over which the benchmark comparison is made for the relevant transportation costs will be extended for one or more 12-month periods, until the FERC has approved final settled rates, which will be used as the appropriate benchmark. Company will not share in any of the savings or expenses related to the affected pipeline until final settled rates are approved.

OSSIF

OSSIF = Off-System Sales Index Factor. The Off-System Sales Index Factor shall be equal to the Net Revenue from Off-System Sales **(NR)**.

Net Revenue is calculated as follows:

NR = OSREV - OOPC

Where:
OSREV is the total revenue associated with off-system sales and storage service transactions.

OOPC is the out-of-pocket costs associated with off-system sales and storage service transactions, and shall be determined as follows:

OOPC = OOPC(GC) + OOPC(TC) + OOPC(SC) + OOPC(UGSC) + Other Costs

Where:
OOPC(GC) is the Out-of-Pocket Gas Costs associated with off-system sales transactions. For off-system sales utilizing Company's firm supply contracts, the OOPC(GC) shall be the incremental cost to purchase the gas available under Company's firm supply contracts. For off-system sales not using Company's firm supply contracts, the OOPC(GC) shall be the incremental costs to purchase the gas from other entities.

OOPC(TC) is the Out-of-Pocket Transportation Costs associated with off-system sales transactions. For off-system sales utilizing Company's firm transportation agreements, the OOPC(TC) shall be the incremental cost to use the transportation available under Company's firm transportation contracts. For off-system sales not using Company's firm transportation agreements, the OOPC(TC) shall be the incremental costs to purchase the transportation from other entities.

OOPC(SC) is the Out-of-Pocket Storage Costs associated with off-system sales of storage. If this is gas in Company's own storage it shall be priced at the average price of the gas in Company's storage during the month of the sale. If this is gas from the storage component of Texas Gas's No-Notice Service, this gas shall be priced at the replacement cost.

OOPC(UGSC) is the Out-of-Pocket Underground Storage Costs associated with off-system sales of storage services. For the off-systems sales of storage services utilizing Company's on-system storage, the OOPC(UGSC) shall include incremental storage losses, odorization, and other fuel-related costs such as purification, dehydration, and compression. Such costs shall exclude labor-related expenses.

Other Costs represent all other incremental costs and include, but are not limited to, costs such as applicable sales taxes and excise fees plus the gains and/or losses from the use of financial hedging instruments and the transaction costs associated with such instruments. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

Off-system sales and storage service transactions made for operational or administrative reasons N
are not subject to benchmarking under the OSSIF component of the PBR mechanism. N

ACSP

ACSP = Applicable Company Sharing Percentage. The ACSP shall be determined based on the PTAGSC.

Where:
PTAGSC = Percentage of Total Actual Gas Supply Costs. The PTAGSC shall be the TPBRR stated as a Percentage of Total Actual Gas Supply Costs and shall be calculated as follows:

$$\mathbf{PTAGSC} = \frac{\mathbf{TPBRR}}{\mathbf{TAGSC}}$$

Where:
TAGSC = Total Actual Gas Supply Costs. The TAGSC shall be calculated as follows:

$$\mathbf{TAGSC = AGC + TAAGTC}$$

If the absolute value of the PTAGSC is less than or equal to 2~~3~~.0%, then the ACSP of 30~~25~~% shall be applied to TPBRR to determine CSPBR. If the absolute value of the PTAGSC is greater than 2~~3~~.0%, then the ACSP of 30~~25~~% shall be applied to the amount of TPBRR that is equal to 2~~3~~.0% of TAGSC to determine a portion of CSPBR, and the ACSP of 50% shall be applied to the amount of TPBRR that is in excess of 2~~3~~.0% of TAGSC to determine a portion of CSPBR. These two portions are added together to produce the total CSPBR. T T T T

DATE OF ISSUE: ~~May 14~~December 27, 2019

DATE EFFECTIVE: Effective with Service Rendered
On And After November 1, 2020~~15~~

ISSUED BY: /s/ Robert M. Conroy, Vice President
State Regulation and Rates
Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. ~~2014-00476~~2019-00437 dated ~~June 30, 2015~~XXXX

BA

BA = Balance Adjustment. The BA is used to reconcile the difference between the amount of revenues billed or credited through the CSPBR and previous application of the BA and revenues which should have been billed or credited, as follows:

1. For the CSPBR, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the CSPBR and the actual amount used to establish the CSPBR for the period.

2. For the BA, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the BA and the actual amount used to establish the BA for the period.

Review

Within 60 days of the end of the fourth year of the five-year extension, Company will file an assessment and review of the PBR mechanism for the first four years of the five-year extension period. In that report and assessment, Company will make any recommended modifications to the PBR mechanism.

DATE OF ISSUE: May 14, 2019

DATE EFFECTIVE: Effective with Service Rendered
On And After November 1, 2015

ISSUED BY: /s/ Robert M. Conroy, Vice President
State Regulation and Rates
Louisville, Kentucky

Issued by Authority of an Order of the
Public Service Commission in Case No.
2014-00476 dated June 30, 2015