MEMORANDUM

TO: Missouri Public Service Commission Official Case File,

Case No. GR-2017-0299, Spire Missouri, Inc., d/b/a Spire

FROM: Anne M. Crowe, Regulatory Auditor - Procurement Analysis

Keenan B. Patterson, PE, Regulatory Engineer - Procurement Analysis Kwang Y. Choe, PhD, Regulatory Economist - Procurement Analysis

/s/ David M. Sommerer 12/17/18 /s/ Robert S. Berlin 12/17/18

Project Coordinator / Date Staff Counsel / Date

SUBJECT: Staff's Recommendation for Case No. GR-2017-0299, Spire Missouri, Inc.,

d/b/a Spire 2016-2017 Actual Cost Adjustment Filing

DATE: December 17, 2018

I. EXECUTIVE SUMMARY

On October 31, 2017, Spire Missouri, Inc., d/b/a Spire ("Company" or "Spire Missouri East") filed its Actual Cost Adjustment (ACA) for the 2016-2017 ACA period. On August 16, 2017, in Case No. GN-2018-0032, the Commission issued an order recognizing Laclede's name change to Spire Missouri Inc., d/b/a Spire. In order to distinguish the Laclede service area from the Missouri Gas Energy ("MGE") service area, Spire registered the fictitious names Spire Missouri East for the Laclede Division and Spire Missouri West for the MGE Division. The filing contains the Company's ACA balances as of September 30, 2017 for the Spire Missouri East division.

Laclede serves approximately 650,000 residential, commercial, and industrial customers in the St. Louis metropolitan area and surrounding counties.

The Commission's Procurement Analysis Department ("Staff") has reviewed the Company's ACA filing. Staff's review included an analysis of billed revenues and actual gas costs for the period October 1, 2016, through September 30, 2017. Staff conducted a reliability analysis for Laclede, including a review of its estimate of customers' needs on a peak day (peak day requirements and the capacity levels to meet those requirements), peak day reserve margin and its rationale, and a review of gas supply plans for various weather conditions. Staff also reviewed Laclede's gas purchasing practices to determine the prudence of the Company's purchasing and operating decisions.

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Staff has proposed a total adjustment in the amount of \$ (567,455) to Laclede's September 30, 2017, ACA account balances as shown in the table in the Recommendations section of this Memorandum. The following Table of Contents provides a guide to Staff's comments and recommendations contained in Sections I through VI of this Memorandum:

Section No.	Topic	Page
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II	Reliability and Gas Supply Analysis	2
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	Conduct	
IV	Actual Gas Costs and Beginning ACA Balance	4
V	Hedging	5
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STAFF'S TECHNICAL DISCUSSION AND ANALYSIS

II. RELIABILITY AND GAS SUPPLY ANALYSIS

As a regulated gas corporation providing natural gas services to Missouri customers, a local distribution company (LDC) is responsible for conducting reasonable long-range supply planning and the decisions resulting from that planning. A purpose of the ACA process is to review the LDC's planning for gas supply, transportation and storage to meet its customers' needs. For this analysis, Staff reviewed Spire Missouri East's plans and decisions regarding estimated peak day requirements and the capacity levels to meet those requirements, peak day reserve margin and the rationale for this margin and natural gas plans for various conditions.

Staff has no proposed financial adjustments for the 2016-2017 ACA period related to reliability analysis and gas supply planning. Staff's other comments and recommendations are discussed in the rest of this section.

Spire STL Pipeline LLC

In August 2018, the Federal Energy Regulatory Commission (FERC) issued a certificate allowing Spire STL Pipeline LLC to construct a pipeline that will connect the Rocky Mountains Express Pipeline to Spire Missouri East and the Enable Mississippi River Transmission Pipeline.¹ Changes in pipeline capacity may trigger documentation and reporting requirements specified in stipulations in Case No. GM-2013-0254 and GR-2014-0121.

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¹ Spire STL Pipeline LLC, 164 FERC ¶ 61,085 (2018) (Certificate Order).

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Staff recommends that Spire Missouri East monitor changes in pipeline capacity related to its connection to the Spire STL Pipeline LLC and provide documentation and reporting as may be required in the stipulations approved by the Commission in Case Nos. GM-2013-0254 and GR-2014-0121.

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Staff recommends that Company more fully implement these enhancements to its reliability report:

- describe how Spire manages its assets in addition to the physical capabilities of the assets and the overall system,
- discuss the justification for its assessment of the appropriate amount of reserve capacity (or reserve margin) along with a justification, and
- incorporate customer growth projections.

In addition, Staff notes that the next capacity analysis for Spire Missouri East, required in the stipulation in Case No. GM-2013-0254, is due to be submitted by August 31, 2019.

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III. GAS SUPPLY AND TRANSPORTATION STANDARDS OF CONDUCT ("STANDARDS OF CONDUCT" OR "SOC")

Staff conducted an investigation of Spire's (Spire Missouri West and East divisions) compliance with the gas supply documentation requirements of its Gas Supply and Transportation Standards of Conduct ("Standards of Conduct" or "SOC") section of the Cost Allocation Manual (CAM) in Case No. GO-2017-0223. On August 22, 2017, Staff filed the results of its investigation along with recommendations the Company should implement going forward to bring it into compliance with the SOC.²

Staff reviewed a sample of Company documents for SOC compliance for the 2016-2017 ACA period during its SOC investigation and recommended that no later than December 31, 2017 the Company implement its recommendations within the Report to bring it into compliance with the SOC. Staff's recommended date is within the 2017-2018 ACA period. Staff will continue to monitor Company documentation required by the SOC and make recommendations as necessary.

IV. ACTUAL GAS COSTS AND BEGINNING ACA BALANCE

In this period, the Company revised its ACA balance supporting spreadsheets. In Staff's opinion, the revisions to the spreadsheets do not contain sufficient detail to verify the ACA balances to the underlying supporting gas cost invoices. Staff found discrepancies with the Company's gas costs in this period. Therefore, Staff recommends an adjustment to reduce the Company's gas cost by \$ (1,167,915). The ACA balance is cumulative so that the ending balance of one period becomes the beginning balance of the next period. In this period, the Company's beginning ACA balance was inaccurate. Staff recommends an adjustment of \$600,460 to the ACA balance due to the inaccurate beginning balance. The total of the two proposed adjustments is \$ (567,455) (negative \$1,167,915 plus positive \$600,460). The Company has indicated a willingness to work with Staff going forward to revise its ACA balance documentation to support its ACA balances. Staff recommends a meeting within 60 days from the filing date of this ACA recommendation between the Company and Staff in an attempt to resolve the discrepancies Staff has noted and work towards a transparent audit trail documentation to support the Company's ACA balances.

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² Case No. GO-2017-0223 Staff Investigation Report dated August 22, 2017 pages 3-5.

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V. HEDGING

One of the purposes of hedging is to reduce upward gas price volatility. Staff reviewed the Company's Risk Management Strategy, Gas Supply Risk Management Policy and its financial hedging transactions for the 2016-2017 ACA period. The Company implemented its financial hedging transactions based on the risk management strategy. Staff also reviewed monthly hedged coverage for the winter period of November 2016 through March 2017. Laclede uses financial instruments and storage withdrawals for its hedge coverage.

Staff has the following comments and concerns about Laclede's hedging practice and documentation:

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B. Evaluation of Hedge Program

Staff reviews the prudence of a Company's decision-making based on what the Company knew or reasonably could have known at the time it made its hedging decisions. A Company's hedging planning should be flexible enough to incorporate changing market circumstances. A Company should evaluate its hedging strategy in response to changing market dynamics as to how much the existing hedging strategy actually benefits its customers while balancing market price risk. For example, Laclede should continue to evaluate the current strategy of financially hedging summer storage injections with respect to the appropriate amount of storage injections to hedge. The Company should also routinely review and evaluate the adequacy of its hedge coverage regarding the appropriate volumes of financial instruments as well as the possible use of more cost-effective financial instruments to assess exposure to market prices under the current market where the market prices have become relatively less volatile.

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Staff recommends the Company analyze the benefits/costs based on the outcomes from the hedging strategy, and evaluate any potential improvements on the future hedging plan and its implementation to achieve a cost effective hedging outcome. For example, the Company should continue to evaluate the performance of its hedge program in terms of the various types of financial instruments used, whether some level of over-the-counter instruments might help control margin calls as the Company's policy is to utilize various derivatives, and whether the existing program should be modified under the current market.

Additionally, a summary of how the Company's financial hedges have performed against market pricing, i.e., the impact of purchases without the hedges, is useful in its consideration of prospective changes to its Risk Management Strategy as the Company reviews and develops its hedging program each year.³ This hedge performance or mark-to-market summary over an extensive historical period shows the gains/losses from the hedges and is helpful in seeing the long term financial impact of the hedge program and may assist Laclede in hedge planning. Staff made a similar recommendation for the prior ACA cases and Laclede agreed to develop this summary and provide Staff with information in future ACA periods.

Finally, as Laclede incorporates the lower of First Of Month (FOM) Index or Daily Index pricing for swing supply as a type of insurance against daily price spikes within a month into the Company's Risk Management Strategy, the Company should continue to evaluate the costs/benefits of these instruments in conjunction with other parts of the Company's hedge program.

VI. RECOMMENDATIONS

1. Staff has determined the following adjustments and ACA account balances shown in the table below to reflect the under- or (over)-recovery balances as of September 30, 2017.

An over-recovery is the amount owed to the customers by the Company and is shown in the table as a negative number. An under-recovery is an amount owed to the Company by the customers and is shown in the table as a positive number.

³ The Company indicated its Risk Management Strategy dated July 2015 was the most recent on available for the 2016-2017 ACA period.

	Firm Sales non-LVTSS	Firm Sales LVTSS	Interruptible Sales	LP Sales	Firm Transportation	Basic Transportation	Vehicular Fuel
ACA Balance per Filing	\$29,118,355	\$140,772	\$ (177,573)	\$5,833	\$ 1,614,653	\$0	\$959,249
Staff Adjustments	\$ (548,279)	\$ (2,616)	\$ (10,397)	\$0	\$0	\$ 241	\$ (6,404)
Staff Recommended ACA Balance	\$ 28,570,076	\$138,156	\$ (187,970)	\$5,833	\$ 1,614,653	\$ 241	\$ 952,845

Staff recommends the Commission issue an order requiring Laclede to:

- 2. Respond to the Staff recommendations in the Reliability and Gas Supply Analysis section.
- 3. Respond to the Staff recommendations in the Hedging section.
- 4. Respond to the recommendations herein within 45 days.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Purchased Gas Adjustment (PGA) Factors to be Reviewed in its 2016-2017 Actual Cost Adjustment Case No. GR-2017-0299 Case No. GR-2017-0299							
AFFIDAVIT OF ANNE M. CROWE							
STATE OF MISSOURI)) ss. COUNTY OF COLE)							
COMES NOW ANNE M. CROWE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing <i>Staff Recommendation</i> in Memorandum form; and that the same is true and correct according to her best knowledge and belief.							
Further the Affiant sayeth not. ANNE M. CROWE							
JURAT							
Subscribed and sworn before me, a duly constituted and authorized Notary Public, in							
and for the County of Cole, State of Missouri, at my office in Jefferson City, on this day of December, 2018.							
D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: December 12, 2020 Commission Number: 12412070							

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

Purchased Gas Adjustment (PGA)) Case No. GR-2017-0299 Factors to be Reviewed in its 2016-2017) Actual Cost Adjustment)
AFFIDAVIT OF KEENAN B. PATTERSON, PE
STATE OF MISSOURI)) ss. COUNTY OF COLE)
COMES NOW KEENAN B. PATTERSON, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing <i>Staff Recommendation</i> in Memorandum form; and that the same is true and correct according to his best knowledge and belief.
Further the Affiant sayeth not. CONOUN STATESON, PE
JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in

and for the County of Cole, State of Missouri, at my office in Jefferson City, on this

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

day of December, 2018.

In the Matter of Laclede Gas Company's

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Compar Purchased Gas Adjustment (PGA) Factors to be Reviewed in its 2016-20 Actual Cost Adjustment)	Case No. GR-2017-0299	
AFFIDAVIT	OF KWAN	G Y. CHOE, PhD	
STATE OF MISSOURI) COUNTY OF COLE)	SS.		

COMES NOW KWANG Y. CHOE, PhD and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation* in Memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

KWANG Y. CHOE, PhD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this ________ day of December, 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

Notary Public