MEMORANDUM

TO: Missouri Public Service Commission Official Case File,
File No. GR-2014-0231, Laclede Gas Company

FROM: Anne M. Crowe, Regulatory Auditor - Procurement Analysis
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/s/ David M. Sommerer 12/18/15 — Project Coordinator / Date
/s/ Jeffrey A. Keevil 12/18/15 — Staff Counsel / Date

/s/ Lesa Jenkins P.E, 12/18/15
Utility Regulatory Engineer II/ Date

SUBJECT: Staff's Recommendation in File No. GR-2014-0231, Laclede Gas Company's 2013-2014 Actual Cost Adjustment Filing

DATE: December 18, 2015

I. EXECUTIVE SUMMARY

On October 31, 2014, Laclede Gas Company ("Company," "Laclede," or "LGC") filed its Actual Cost Adjustment (ACA) for the 2013-2014 ACA period. This filing was originally filed in Case No. GR-2015-0110; however, because this filing should have been submitted in Case No. GR-2014-0231, on November 5, 2014, the Commission issued an order consolidating Case No. GR-2015-0110 into Case No. GR-2014-0231 and ordered that all future filings be made in Case No. GR-2014-0231. The filing contains the Company's ACA balances as of September 30, 2014.

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

The Commission's Procurement Analysis Unit ("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, 2013 through September 30, 2014. 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. The Staff also reviewed Laclede's gas purchasing practices to determine the prudence of the Company's purchasing and operating decisions. In this document, Laclede Gas Company's marketing affiliate Laclede Energy Resources is referred to as "LER."

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Staff has proposed no dollar adjustments to the Company's ACA account balances filed October 31, 2014. The following Table of Contents provides a guide to Staff's comments and recommendations contained in sections I through VI of this Memorandum:

STAFF'S TECHNICAL DISCUSSION AND ANALYSIS

II. RELIABILITY AND GAS SUPPLY ANALYSIS

As a regulated gas corporation providing natural gas service to Missouri customers, the Local Distribution Company (LDC) is responsible for: 1) conducting reasonable long-range supply planning and 2) the decisions resulting from that planning. One purpose of the ACA process is for Staff to review the Company's planning for gas supply, transportation, and storage to meet its customers' needs. For this analysis, Staff reviewed Laclede's plans and decisions regarding its estimated peak day requirements, its capacity levels to meet those requirements, its peak day reserve margin, Laclede's rationale for this reserve margin, and its gas supply plans for various weather conditions.

Staff has proposed no financial adjustments. Staff has the following comments and concerns regarding Laclede's reliability analysis and gas supply planning:

A. Laclede's Gas Supply Planning Request for Proposal (RFP) Process – Documentation of Supply Bids Received, Bid Evaluation, and Supply Award Process

Documentation requirements for solicitation and awards of contracts are included in Laclede's Gas Supply and Transportation Standards of Conduct.[1] Laclede agreed to implement all of the provisions of the Standards of Conduct within 10 days after the effective date of the Commission's order approving the Unanimous Partial Stipulation and Agreement in GC-2011-0098. The order approving the stipulation and agreement

[1] The Gas Supply and Transportation Standards of Conduct is Appendix 2 of the Unanimous Stipulation and Agreement for GC-2011-0098. Complaint case GC-2011-0098 was filed October 6, 2010 by Staff, asserting that Laclede had violated the Commission's affiliate transaction rules (4 CSR 240-10.015 and 4 CSR 240-40.016). The Gas Supply and Transportation Standards of Conduct were included as Appendix 2 to the Unanimous Partial Stipulation and Agreement to address Staff's and OPC's concerns regarding how the purchase and sale of gas and transportation capacity between Laclede and its affiliates should be conducted and priced.

was effective 8/24/2013, which was after the Company awarded most of its long term supply contracts[2] for the 2013/2014 ACA.

Staff concerns with the Laclede documentation of supply bids, bid evaluation and natural gas supply award process for the 2013/2014 ACA are as follows:

1. Provisions Excluding "Freeze Off" from Force Majeure

Laclede's Request for Proposal (RFP) documents contain a provision excluding "freezing or failure of wells or appurtenant facilities" from the definition of Force Majeure. **

[2] One long term contract (541) was awarded on October 4, 2013 after the Standards of Conduct were in effect.
[3] ** **
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Parts A.1 and 2 of the Gas Supply and Transportation Standards of Conduct discuss a competitive bidding process and exceptions to the competitive bid and award process. Staff considers awarding contracts to an offer higher than the lowest offer to be an exception to a competitive bid process. In the Company's responses to Staff's recommendations on GR-2012-0133[8] and GR-2011-0055,[9] the Company agreed to develop a process to formally document decisions not to accept the low bid.

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As per the Gas Supply and Transportation Standards of Conduct, for any exceptions to the competitive bid and award process, Laclede will have a documented process for the supply approval and award process, including (a) justification requirements, (b) authorization process; (c) contemporaneous documentation requirements (for internal Company information and external communication with suppliers), and (d) effective monitoring and controls.

For the gas supply competitive bid process for the 2014/2015 ACA period, Staff will be evaluating exceptions to the competitive bid process as set forth in the

[8] GR-2012-0133, File date February 11, 2013.
[9] GR-2011-0055, File date January 14, 2013.
[10] ** **

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Standards of Conduct. Staff recommends that the Company provide contemporaneous documentation of all volume limits it set for the award of 2014/2015 supply awards with its documentation of contract awards.

3. Selective Negotiations versus Competitive Bid Process

Parts A.1 and 2 of the Gas Supply and Transportation Standards of Conduct discuss a competitive bidding process and exceptions to the competitive bid and award process. Part A.4 requires that for phone calls or texts, Laclede shall maintain contemporaneous logs documenting the discussions and decisions. During the 2013/2014 RFP process, the Company has acknowledged negotiations occurred by phone, but did not provide contemporaneous logs documenting the discussions and decisions. Examples[11] include:

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In the Company's response to Staff's recommendation in case GR-2013-0253,[12] the Company acknowledged Staff's periodically expressed concerns regarding documentation of post-bid negotiations, and agreed to maintain documentation of exceptions to the competitive bid process.

For the gas supply competitive bid process for the 2014/2015 ACA period, Staff will be evaluating exceptions to the competitive bid process as set forth in the Standards of Conduct. Staff recommends that the Company maintain a contemporaneous log of phone negotiations and provide copies of such documentation in support of its award decisions.

B. Competitive Bidding for Short Term Supply

The Gas Supply and Transportation Standards of Conduct (Standards of Conduct) became effective 8/24/13. Section B, "Short term purchases of gas supply (one month or less)" requires that the Company maintain contemporaneous documentation sufficient to establish that its short-term purchases of gas supply are acquired in accordance with a competitive bidding process. The Standards of Conduct states that that the intent is to gain the broadest practical participation by eligible suppliers.

The Standards of Conduct required that within six months the Company develop a documented information exchange process where eligible suppliers will be notified of gas

[11] GR-2014-0231, DR 51.1 response.
[12] GR-2013-0253, File date February 14, 2014.

supplies that the Company may wish to purchase on a given day(s), and/or suppliers notify Laclede of supply and prices each is willing to offer. The six month limit would have ended in February of 2014. The Standards of Conduct further states that the use of an electronic platform is for trading (not just price discovery). The Company pursued and then abandoned development of its own electronic information and exchange platform in favor of using an existing centralized trading platform: The Intercontinental Exchange ("ICE").[13] However, the Company did not use ICE for awards on MRT because MRT is not traded on ICE and did not exclusively use ICE for awards on Southern Star Central Gas Pipeline (SSCGP) because deals on ICE are not for a specific production pool.[14]

The Company stated the primary exception to its use of ICE ** ______________________ **

The Company's supporting documents for short term purchases include a comment section. Two of the frequently used comments ("ICE deal" and "RFP") suggest competitive bidding occurred and the Company has provided documentation that these deals were competitively bid in response to follow-up data requests. Other comments (e.g. "Index deal rolled from previous day with price adjustment") do not implicitly suggest competitive bidding.

Staff requested additional supporting documentation to establish that competitive bidding occurred for the different categories of comments the Company used to describe its bidding processes. Staff did not find that the Company had retained sufficient documentation for deals that were awarded using methods other than ICE deals or an RPF process.

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[13] GR-2014-0231, DR 116 (B) response.
[14] GR-2014-0231, DR 116.1 (D) response.
[15] ** GR-2014-0231, DR 116 (B) response. **
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These examples are illustrative of instances when the Company's actual short term supply procurement deviated from the Standards of Conduct. The Company stated that:

> …now that the Company has had some experience operating under the Gas Supply and Transportation Standards of Conduct, the Company believes that such standards should be modified to recognize the practical differences between monthly and daily purchases.[27]

Staff notes that several instances when the Company did not meet the Standards of Conduct requirements were for monthly (not daily) purchases (e.g. Examples 3 and 4 above) or deals that were rolled forward to such extent that they resemble monthly purchases (e.g. examples 1 and 2 above).

There is nothing in the Standards of Conduct that prevent the Company from employing other documented competitive bid processes such as use of emails, instant messages, or phone calls (with a log of the phone call request and response) to multiple suppliers for its purchases of short term gas supply (one month or less). If the Company wishes to propose revisions to the Standards of Conduct, it can submit them for Staff and OPC review, after which a meeting can be scheduled to discuss whether such revisions will benefit customers, and if such revisions are appropriate they can be filed with the Commission for approval to modify the existing Standards of Conduct.

C. Gas Supply Reservation (Supply Demand) Charges

1. Background

Laclede's natural gas supply includes baseload agreements, combination agreements, and swing supply agreements. Baseload supply agreements allow the same contracted quantity to flow each day of the month during the term of the agreement. Swing supply agreements have a specified maximum daily quantity, but allow nominations to vary from zero up to the maximum daily quantity. Combination (combo) supply agreements are like swing agreements in that the agreements allow the Company to nominate zero up to the full maximum quantity, but combination agreements have minimum annual or monthly purchase requirements. Combination and swing contracts provide Laclede with flexibility to increase or decrease nominations in response to changing weather and customer requirements and for flexibility in managing storage so that the withdrawal requirements and limitations of the Company's storage contract with Enable - Mississippi River Transmission (MRT) are met.

[27] GR-2014-02314 DR 116.

There are natural gas supply fixed reservation (demand) charges associated with Laclede's combination and swing supply contracts. These fixed charges are incurred regardless of actual gas flow (e.g. even when the weather is mild and not as much natural gas is needed).

Laclede's natural gas supply contracts for the 2013/2014 ACA period tie natural gas pricing to indices. This first index Laclede used in supply contracts is a "First of Month" (FOM) index price, which represents setting the price of natural gas based upon a reference price developed by a specific gas industry publication. This FOM price, once published, becomes the prevailing price for natural gas taken under a contract for the entire month. The second index that Laclede used in its supply contracts is a *Gas Daily* Daily price index ("GDD"). This price is also a reference or index price but is calculated by an industry publication for a specific day. The GDD prices may change from one day to the next based upon daily transactions, unlike the FOM price that, once set, is the same for the entire month. Some of Laclede's gas supply contracts were negotiated such that Laclede would pay the lower of the FOM or GDD price for natural gas flowing on any day. These contracts are referred to as "Lower of FOM Index or Daily Index" contracts.

Staff provided comments in the 2012/2013 ACA (GR-2014-0121) and 2011/2012 ACA (GR-2013-0253) recommendations regarding natural gas supply reservation charges associated with Laclede's "Lower of FOM Index or Daily Index" contracts. The comments for the 2013/2014 ACA are based on additional Laclede data.

Laclede provided its updated Demand Charge Study 11/19/2015. The study was in response to the Order Approving Stipulation and Agreement (S&A) and Establishing ACA Balance for the Laclede Gas Company 2012/2013 ACA, GR-2014-0121, issued 8/19/2015 and effective 8/29/2015. The S & A required the following:

> <u>Gas Supply Analyses (pp 1 -2 of S&A):</u>
>
> Consistent with Staff's Recommendation at page 5 of its Memorandum, Laclede Gas agrees to update its study comparing the amount of demand charges paid by the Company to lock in the lower of first of the month (FOM) price or the daily price on certain gas supply contracts/agreements to the difference between the FOM price and the daily price during the applicable gas supply

contract term. Such study shall include data for the 2013-14 ACA period and any subsequent years during which the Company pays such demand charges.

2. Are Costs of "Lower of" Swing Deals Reasonable

For the 2013/2014 swing supply, Laclede awarded supply agreements for natural gas priced at GDD and gas priced at "Lower-of FOM Index or Daily Index". The GDD priced swing supply had an average reservation charge of $0.0042. The "Lower-of FOM Index or Daily Index" swing supply had an average reservation charge of $0.0882 which is 21 times greater than the GDD priced swing supply.

The Laclede analysis lists the demand charges for the seven years of data provided. Laclede also compares the daily and monthly price for each day. If the GDD index daily price is greater than the FOM index monthly price Laclede calculates the difference as a savings. If the GDD daily index price is not greater than the FOM index monthly price Laclede records zero. Therefore, Laclede would characterize the Lower of FOM Index or Daily Index contracts as realizing savings when GDD index daily gas prices exceeded the FOM index prices for a given month. Laclede does not compare the swing demand charges for the Lower of FOM Index or Daily Index to the demand charges for swing gas priced at a GDD daily index.

A summary of the Laclede total demand charges and the savings are shown in the following table. Laclede's information shows that for the November through October period of 2008/2009 through 2014/2015, there is a net cost to the swing supply priced at Lower-of FOM Index or Daily Index for six of the seven years.

Gas Year	Nov-Oct	Total Demand Charges Lower of Swing Deals	Savings from Volumes Received when Daily Prices Exceeded First of Month Prices	Difference; Savings	Do savings exceed demand charges?
2009	2008/2009	$8,981,365	$3,251,953	$ (5,729,412)	No
2010	2009/2010	$4,994,350	$2,469,540	$ (2,524,810)	No
2011	2010/2011	$2,810,380	$1,645,415	$ (1,164,965)	No
2012	2011/2012	$1,894,290	$40,905	$ (1,853,385)	No
2013	2012/2013	$1,576,768	$1,106,754	$ (470,014)	No
2014	2013/2014	$1,741,246	$4,969,179	$ 3,227,933	Yes
2015	2014/2015	$2,846,788	$1,007,070	$ (1,839,718)	No
7-Year Total		$24,845,187	$14,490,816	$ (10,354,371)	No
Average		$3,549,312	$2,070,117	$ (1,479,196)	No

Laclede does not compare the swing demand charges for the "lower of" option to those for swing priced at a daily index. When Staff considers the demand charges for swing gas priced at a daily index, there are net savings to customers only in the 2013/2014 winter that was colder than normal (116% of normal).

Nov-Oct	Added Demand Charge Cost of Lower of Swing Deals vs. Swing-Daily Deals	Savings if Consider Demand Charges for both Swing Daily and Lower-of Swing deals	Nov - Mar HDD as % of Normal
2008/2009	$8,689,059	($5,437,106)	97%
2009/2010	$4,847,467	($2,377,927)	98%
2010/2011	$2,696,133	($1,050,719)	100%
2011/2012	$1,838,510	($1,797,605)	74%
2012/2013	$1,538,598	($431,844)	97%
2013/2014	$1,694,979	$3,274,200	116%
2014/2015	*Data not yet available in 2013/2014 ACA*		
6-Year Total	$21,304,746	($7,821,000)	
Average	$3,550,791	($1,303,500)	

The Laclede 11/1/2013 and 2/3/2014 information included statements that it "views the FOM option as insurance against intra-month price spikes" and states the "price spikes are most likely to occur during periods of very cold weather when customer usage is high." Laclede's 2/3/2014 information refers to high volumes and cold weather experienced in the 2013/2014 winter. Laclede does not provide any evaluation of whether these costs are reasonable. Staff continues to recommend as it did in the 2012/2013 ACA that Laclede respond to these comments by explaining what limits are placed on the demand charges for these swing supplies and whether there should be volume limitations for this type of swing supply.

In the 2012/2013 ACA Staff recommended that if the swing gas priced at the Lower-of FOM Index or Daily Index is considered a part of the Laclede plan to mitigate upward natural gas price volatility, then swing gas priced at the Lower-of FOM Index or Daily Index should be included in Laclede's Risk Management Strategy and the costs should be compared to the costs of other hedging strategies considered in the Laclede portfolio to mitigate upward natural gas price volatility. At the Laclede/MGE Winter Supply Meeting, 10/27/2015, Laclede stated this had been completed. However, the change was not part of the Laclede Risk Management Strategy in effect for the 2013/2014 winter. Staff will be looking for this information in subsequent ACA reviews.

D. Recent Cold Weather Data Available to Update Laclede Demand/Capacity Analysis (also referred to as Reliability Report)

The order approving the Unanimous Stipulation and Agreement (S&A) for the Laclede Group and Laclede Gas acquisition of Missouri Gas Energy (MGE) from Southern Union was issued 7/17/13 and effective 7/31/13 in GM-2013-0254. The S&A included provisions related to interstate and intrastate transportation and storage costs (pp 29 – 31 of S&A) and required Laclede to formally conduct a comprehensive evaluation of pipeline transportation capacity and storage capacity (Demand/Capacity Analysis) no less frequently than every three years and to submit the analysis to Staff, OPC, and other interested parties.

The S&A also requires:

> If Laclede Gas revises the transportation capacity or storage capacity from that identified in the Demand/Capacity Analysis, Laclede Gas shall prepare an addendum to the Demand/Capacity Analysis within 6-months of making such changes, explaining the changes and the rationale for the changes, and provide the addendum to Staff and OPC. Laclede Gas shall file the Demand/Capacity Analyses and addendums, in EFIS, under case GM-2013-0254.

The S&A also requires:

> Laclede Gas shall notify OPC, Staff, and other interested parties, subject to the protections found in 4 CSR 240-2.135 and/or 4 CSR 240-2.085, <u>if and when Laclede Gas adds or changes pipeline capacity (transportation and storage capacity) of a quantity equal to or greater than 10% of Laclede Gas or MGE Division's existing capacity and shall keep and provide OPC and Staff, appropriate documentation regarding such decisions.</u> Laclede Gas' notification shall be provided within 30 days of the effective date of changes. This documentation shall include, but not be limited to: all proposed terms, including rates (and any discounts), amount of capacity, delivery and take points, any storage capabilities, maximum storage quantities, maximum daily withdrawal quantities, maximum daily injection quantities, whether the capacity is firm, interruptible, etc., capacity release and off-system sales opportunities, the reason for the additional capacity or change, and all negotiations regarding the new or change in capacity. This information shall be provided upon request within the time normally provided for discovery under the Commission's rules. However, in no event shall the providing of this information constitute preapproval by OPC or Staff or any other proper party. (Emphasis added.)

Although Laclede provided a 2013/2014 Demand/Capacity Analysis, it uses the same regression data as the previous three analyses for 2012/2013, 2011/2012 and 2010/2011. Laclede conducted a regression of actual distribution data for 1/1/2010 – 2/28/2010. Each winter month of 2013/2014 was colder than normal and that data would have been available for planning for the 2014/2015 ACA period. Because of the availability of usage data for a cold winter, Staff expects to see Laclede's update for its regression analysis for its 2014/2015 winter peak day planning.

E. Laclede Planning Documents

Laclede documented its planned sendout (usage) and utilization of assets to meet cold weather and peak day demands in its 2013-2014 Reliability Report and its Fiscal 2014 Operating Plan. The following discussion relates to Staff Recommendations regarding the planning process described in these plan documents.

1. <u>Laclede Design Simulation of 1935-1936 Winter Weather</u>

Laclede uses the 1935/1936 temperature pattern for its design simulation because supply in late winter presents challenges for Laclede's system. Laclede's stated objective in this design simulation was to arrive at a level, or levels, of flowing supplies that would result in the exhaustion of virtually all of the Company's available gas supply resources assuming the weather conditions prevailing in 1935-1936 and current customer requirements. The 1935/1936 winter temperatures include a 5-week cold period and a cold day in late winter. Laclede's use of weather data from 1935/1936 to simulate a cold winter followed by a late winter cold day is not unreasonable.

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Examples of contradictions Staff noted were as follows:

2. <u>Original 2013-2014 Reliability Report MRT Storage Withdrawals Exceeded Deliverability Curves (Exhibit II-C):</u>

Staff's review of Laclede's originally submitted 2013-2014 Reliability Report design simulation (Exhibit III-A) indicated that some of the MRT storage withdrawals shown in January and February would have exceeded the deliverability curves (Exhibit II-C). Staff questioned the Company's calculations of available MRT storage withdrawal in its Exhibit III-A. The Company responded:

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> There was a data entry error that occurred at the time the company adjusted storage factors to take into consideration the reduced MRT storage contract. The Company has provided Staff a revised Exhibit III-A.[28]

Staff asked how the Company uses the output from this design simulation in its supply purchasing and operating decisions. The Company responded that:

> The 3536 weather pattern is utilized to insure that the Company has sufficient resources for a late season peak day.[29]

Staff recommends that the Company review its MRT storage withdrawals in the design simulation for 2015-2016 and forward to ensure it has sufficient resources for a late season peak days.

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The Company's stated objective of the design simulation was to arrive at a level, or levels, of flowing supplies that would result in the exhaustion of virtually all of the Company's available gas supply resources assuming the weather conditions prevailing in 1935-1936 and current customer requirements. Since the design simulation shows excess MRT inventory remaining in storage at the end of the withdrawal cycle, Laclede's planned supply for its 1935/1936 weather design simulation does not achieve its objective. Staff recommends that the Company

[28] GR-2014-0231, DR 64. g revised response.
[29] GR-2014-0231, DR 80.1 part E response.

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review its requirements for MRT storage capacity and supply plans in light of the design simulation results.

4. Withdrawals from Lange Storage in Exhibit III-A Exceeded Lange Deliverability

The Company stated that the withdrawal deliverability shown in Exhibit II-H (Laclede UGS Table):

> … is the Company's best effort to combine all the deliverability information in Exhibit II-G "UGS Flow Capability" into a single equation. **

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5. Additional Recommendations Regarding Planning Documents

- The MRT Tariff Sheets in Exhibit II-B of the 2013-2014 Reliability Report were superseded with newer versions prior to the 2013/2014 ACA. The Company should review the MRT tariff at least on an annual basis and update the reliability report for changes.

- The maximum amount of inventory that may be retained in MRT storage at the end of the withdrawal cycle was not updated in the Fiscal 2014 Operating Plan to reflect the revised contract volumes. When Laclede makes future changes to its MRT storage MSQ, it should update all relevant plans accordingly.

- In the 2013-2014 Reliability Report, the Company compared the results of the sendout equation to the 10 coldest days during the past four years. There were 10 cold days with average temperatures of 14 ºF or lower (all in calendar year 2010 and 2011). In the 2013/2014 winter, there were 11 days with average temperatures of 14 ºF or lower. The lowest average daily temperature in the 2013/2014 winter was -2 ºF (versus the lowest in the 2013-2014 Reliability Report cold day analysis of 9 ºF). Staff recommends that the Company update for more recent actual cold temperatures, including the usage from the 2013-2014 winter, in its evaluation of the sendout equation for subsequent ACA periods.

F. Large Volume Transportation and Sales Service Customers

1. Background

Large Volume Transportation and Sales Service is available to large volume[31] customers located on the Laclede distribution system. Customers electing this service must sign a Gas Transportation Service Contract with Laclede. This class of customer purchases its own gas supply directly from natural gas suppliers and arranges for delivery of that gas to Laclede. Laclede transports the customer owned gas on its system to the specified delivery locations for each transportation service customer. There are two classes of transportation service customers: Basic and Firm.

For Basic Transportation Service, Laclede will transport and deliver on a firm basis customer-owned gas up to the Daily Scheduled Quantities (DSQ). A customer's natural gas use in excess of the DSQ may be delivered and sold to the customer pursuant to Section D, 4.3 of the Laclede tariff for Monthly Balancing. Laclede may order a Basic transportation service customer to limit its use to the DSQ (Tariff Sheet No. 35). The DSQ is "the Daily Scheduled Quantities of customer-owned gas which is scheduled to be delivered and is

[31] Per Laclede Tariff Sheet No. 32, Transportation service is available (with certain exceptions) to customers with a Billing Demand equal to or greater than, 1,500 therms and an annual usage equal to or greater than, 300,000 therms.

actually delivered to the Company for transportation hereunder in accordance with the terms of the Contract.”[32]

For Firm Transportation Service, Laclede will transport and deliver customer-owned gas up to the customer’s DSQ and will provide sales gas in excess of the DSQ up to the currently effective billing demand (Tariff Sheet No. 33).

Both Basic and Firm transportation service customers have a contract demand which is listed on the customer bill as “reservation therms” and listed in the Laclede Gas Transportation Group Estimated Consumption Report (DR42) as “CD” for contract demand. ** **

Per Laclede Tariff Sheet No. 35, “The billing demand for each month shall be the greater of (a) the Customer’s contracted for billing demand for each separately metered service, or (b) the maximum amount of gas (in therms) transported and/or purchased for each separately metered service during any consecutive period of 24 hours during the months of November through March when the Company has restricted Basic Service deliveries to the DSQ. Notwithstanding the foregoing provisions, the billing demand for any month shall not be less that the highest billing demand for any of the last preceding 11 months.”

Laclede explains: “DSQs are submitted by either the customer or the marketer representing the customer via email. DSQs are authorized so long as they meet the requirements of Section 5 in Sheet No. 40 of the Company’s tariff. b. Requests for Authorized Overruns are submitted by the customer with its DSQs, and such requests may be granted by the Company at its sole discretion as provided in Section B.5 in Sheet No. 34 of the Company’s tariff.”[35]

The various large volume transportation and sales service tariff provisions, and their application, related to “Billing Demand”, DSQ, and balancing have implications on sales customers’ ultimate cost passed through the PGA/ACA mechanism. The winter of 2013/2014 contained relatively high daily pricing during certain periods. The under or over-delivery of gas supply by gas marketers that serve the transportation service customers can have negative cost consequences for sales customers. A simple example would be a situation where Laclede purchases spot gas at daily prices that are high, transport

[32] Laclede Tariff Sheet No. 36.
[33] ** **
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[35] GR-2014-0231, DR39.

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customers consume gas in excess of the gas that their marketers brought on to the system on those days and later reduced their imbalance when they purchased gas at lower prices.

2. <u>Concerns: Contract Demand and DSQ</u>

Staff has two concerns regarding Laclede's application of the contracted for billing demand. (1) The documentation provided does not always support the contracted for billing demand. (2) There were numerous instances where a transportation service customer's daily usage exceeded its contracted for billing demand.

a. Contract Billing Demand Documentation

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Staff recommends Laclede immediately modify its documentation to:

1) Clearly indicate each change to the contract billing demand and the associated effective date, and
2) Include supporting documentation of the rationale for the change, and Laclede's acceptance or rejection of the change.

b. Daily Usage Exceeds Contract Billing Demand

Per Laclede Tariff Sheet No. 33, "In no event shall the Customer's DSQ exceed the Customer's contracted for billing demand except as permitted under the Authorized Overrun provisions set forth under Section B(5) hereof."

Laclede provided copies of select contracts it has with the large volume transportation and sales service customers. For both the Firm and Basic service, Section 2.2 of the contracts reviewed by Staff states:

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> Each month the Daily Scheduled Quantities (DSQ) of natural gas to be transported by Laclede for the Customer shall be designated by the Customer in the form as set forth on Exhibit A to this Contract pursuant to procedures referred to in the Scheduling section of the Transportation Tariff; but such DSQ shall not exceed the Customer's contracted for Billing Demand and Laclede shall not be obligated to receive on behalf of the Customer any quantities in excess of the DSQ stated in the current Exhibit A.

The referenced section B(5) in Tariff Sheet No. 34 states: "Authorized Overrun Provision – When requested by the Customer, and authorized by the Company in its sole discretion, the Customer's DSQ on any day may be increased to a level not to exceed 110% of the currently effective billing demand, without causing an increase in such billing demand." Authorized overruns are applied on customer bills to both Basic and Firm transportation service customers.

The tariff does not prohibit transportation service customer actual daily gas usage (which may exceed its DSQ) from exceeding the contracted for billing demand. Thus, transportation service customers can use more than the billing demand on a daily basis. Staff review of Laclede's Gas Transportation Group, Estimated Consumption Report for some cold days in February 2014 shows numerous occurrences when the transportation service customer usage exceeded the contracted for billing demand. Laclede calculates an overrun for each day that the customer usage exceeds the contracted for billing demand (overrun = usage minus contract demand).

Examples of Basic and Firm transport customer daily usage exceeding (1) DSQ by more than 40% and (2) the contract billing demand by more than 40% are shown in the attached two tables from a review of Laclede's 2/3/14 through 2/7/14 Gas Transportation Group, Estimated Consumption Report.

For the examples in the attached tables, the transportation service customers did not have a DSQ that exceeded the billing demand by more than 110%, but the daily usage exceeded both the DSQ and the Contract Demand by more than 40%.

There is no evidence that shows any increases to contract billing demand (e.g. contract revisions) during the 2013/2014 ACA period even though there were numerous occurrences of the daily usage exceeding the contract billing demand. The transportation service customer reservation charge for contract billing demand, the billing demand per therm, is $0.60 per Tariff Sheet No. 34.

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** ______ **	Firm (F) / Basic (B)	Contract Demand	Overrun	Usage	DSQ	Daily Imbalance
** __ **	B	340,140	64,821	372,092	137,480	(234,612)
** __ **	B	359,460	46,833	335,222	257,790	(77,432)
** ______ **	B	12,840	1,073	10,720	10,550	(170)
** __ **	F	74,650	21,453	76,622	10,400	(66,222)
** __ **	F	65,170	13,951	74,821	25,820	(49,001)
** **	F	11,490	-	7,395	4,860	(2,535)
** **	F	4,000	-	2,846	2,250	(596)

If the contract billing demand were increased for each transportation service customer in the "Laclede Gas Transportation Group, Estimated Consumption Report" that had usage greater than the contract demand on 2/6/2014, the reservation charge for contract demand would increase by approximately $1,066,543 on an annual basis as shown in the following table.

** ______ **	Firm (F) / Basic (B)	Therms for Reservation Charge	Rate	Amount To Be Billed	Increase Therms for Reservation Charge by Overrun	Amount To Be Billed	As % of Current Reservation Charge for Marketer Transport Customers
** __ **	B	340,140	$0.60	204,084	404,961	242,976.60	119%
** __ **	B	359,460	$0.60	215,676	406,293	243,775.80	113%
** ______ **	B	12,840	$0.60	7,704	13,913	8,347.80	108%
** ____ **	B	712,440		$ 427,464		$ 495,100	116%
Billing Demand - Basic Transportation Service					Difference	$ 67,636	
					x 12 months	$ 811,634	
** __ **	F	74,650	$0.60	44,790	96,103	57,662	129%
** __ **	F	65,170	$0.60	39,102	79,121	47,473	121%
** ______ **	F	11,490	$0.60	6,894	11,490	6,894	100%
** ____ **	F	4,000	$0.60	2,400	4,000	2,400	100%
** ____ **	F	155,310		$ 93,186	155,310	$ 114,428	123%
Billing Demand - Firm Transportation Service					Difference	$ 21,242	
					x 12 months	$ 254,909	
Total Basic & Firm, Change in Billing Demand if had increased based on 2/6/14 usage					Difference	$ 88,879	
					x 12 months	$ 1,066,543	

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> Staff recommends in the next general Laclede rate case that Laclede revise the tariff language for transportation service customer billing demand for both Firm and Basic transportation service customers to address Staff concerns above regarding daily usage that exceeds contract billing demand. The tariff must have language that clarifies when Laclede will increase the contract billing demand, not just the exception in section B(5) of Tariff Sheet No. 34 that allows the customer's DSQ to increase to a level not to exceed 110% of the currently effective billing demand, without causing an increase in such billing demand. Staff recommends there be a limit to the number of days that the DSQ and/or the usage can exceed the contract billing demand. For example, if a customer has a DSQ or daily usage that exceeds the currently effective contract demand for 2-days, should the contract billing demand be increased? If not 2-days, what is the appropriate number of days that a Basic or Firm transportation service customer DSQ and/or usage can exceed the contract demand before Laclede increases the billing demand? Additionally, the tariff should specify the minimum length of time, such as 12 months, that the contract demand remains in place before the customer is allowed to request lowering it.

III. PROPANE SALE

Laclede has a mined-out underground propane storage cavern in northern St. Louis County with a capacity of over 32 million gallons, or the equivalent of almost 3 billion cubic feet, of natural gas.[37] Laclede's gas supply plan depends on the vaporization of propane stored in the cavern to supplement its natural gas supply to meet its customers' demands during a design heating season.

In December 2013, rather than using the propane for its customers' needs Laclede sold ** ____ ** Staff is concerned with this propane sale because Laclede kept the entire profit and the impact will be an increase in gas costs for ratepayers in the future.

Laclede kept the entire profit from the sale and did not credit or reduce any portion of ratepayers' gas costs even though ratepayers have paid for the propane facilities in rates over the years and the salaries of Laclede employees. In addition, each year ratepayers pay carrying costs on propane and $1,038,000 in propane pipeline charges of Laclede's affiliate, Laclede Pipeline Company. Given all of the costs paid for by customers that helped make this sale possible, they should receive a financial benefit from the sale.

Laclede replenished the propane inventory that it sold, however the replacement propane was $2,420,798 more expensive than the cost of the propane sold in December 2013. Laclede initially

[37] http://www.lacledegas.com/about/underground/.

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pays for the propane when it is purchased and injected into the propane cavern. However, ratepayers are charged for the propane once it is withdrawn and vaporized. Laclede did not use the replacement propane in this period, however when the replacement propane is vaporized, ratepayers will pay $2,420,798 more in gas costs than they would have paid had Laclede not made the December 2013 propane sale.

Laclede's treatment of the profit from propane sales may be an issue in Laclede's next general rate case.

IV. AFFILIATE EXCHANGES

During this ACA period Laclede performed exchange transactions[38] ** ________________
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> Exchanges were performed on days when Laclede Gas needed all of its contracted gas supplies on the pipeline where the exchange volumes were delivered to serve its on-system customers, that is, on days when Laclede Gas was in neither the off-system sales nor the capacity release markets for that pipeline. Therefore, Laclede would otherwise be earning no margins in these areas to share with its customers.
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> Under the exchange agreement, ** ________________________________
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[38] **Exchange agreement:** A contractual agreement in which quantities of crude oil, petroleum products, natural gas, or electricity are delivered, either directly or through intermediaries, from one company to another company, in exchange for the delivery by the second company to the first company of an equivalent volume or heat content. The exchange may take place at the same time and location or at different times and/or locations. Such agreements may also involve the payment of cash. Note: EIA excludes volumes sold through exchange agreements to avoid double counting of data. (www.eia.gov/tools/glosary)

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Staff is concerned with the lack of documentation regarding these agreements. Laclede did not provide a policy or procedures governing these transactions. With this type of transaction there is a concern that Laclede may be purchasing additional gas based on the timing and location needs of its affiliate and as a result its customers' gas cost could be greater than it would have been without the exchange agreement. ** ____ **

The Laclede reports provided to reconcile or trace the exchange volumes showed monthly amounts, however the exchanges were made on a daily basis. On three dates the Company could provide no records of the exchange. Staff questions how Laclede could verify the daily exchange volumes if monthly data is all that is maintained.

Staff is concerned these transactions were made with an affiliate without a competitive process. ** ____

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V. HEDGING

One of the purposes of hedging is to reduce upward gas price volatility. The Staff reviewed the Company’s Risk Management Strategy and its financial hedging transactions for the 2013-2014 ACA period. The Company implemented its financial hedging transactions based on the risk management strategy. The Staff also reviewed monthly hedged coverage for the winter period of November 2013 through March 2014. 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:

A. Time and Price-Driven Hedging

Laclede uses both time and price-driven hedge parameters to obtain hedge coverage. "Time-driven" approaches typically involve the periodic or systematic purchase of financial hedges on a pre-existing plan in a type of dollar cost averaging. "Price-driven" approaches allow Laclede to purchase financial hedges when market prices fall at or below updated benchmark prices. The time-driven purchase of hedges contained the larger portion of the financial hedges. Laclede should continue to evaluate the adequacy of its hedge coverage to assess exposure to market prices. Although the time-driven purchases of financial hedges for November 2013 through March 2014 were periodically made from April through October 2013, Laclede should continue to evaluate the timing of the hedges to avoid the concentrated placement of hedges in the potentially high cost months just prior to the winter gas flow.

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 the possible use of more cost-effective financial instruments under the current market where the market prices have become relatively less volatile.

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 evaluate the performance of its hedge program in terms of the types of instruments used, whether some level of over-the-counter instruments might help control margin calls, and whether the existing program should be modified under the current market. The Staff notes that the Company indicated during recent updates that it would reevaluate a certain pricing consideration in its price-driven hedge approaches. The Staff will continue to monitor.

Additionally, a summary of how the Company's 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. This hedge performance or mark-to-market summary over an extensive historical period is helpful in seeing the long term financial impact of the hedge program and may assist Laclede in hedge planning. The Staff made a similar recommendation for the 2012-2013 ACA case and Laclede agreed to develop this summary and provide the Staff with information in future ACA periods.

Finally, as Laclede considers the lower of FOM Index or Daily Index pricing for swing supply as a type of insurance against daily price spikes within a month, this option should be included in the Company's Risk Management Strategy and the Company should evaluate the costs/benefits of these instruments in conjunction with other parts of the Company's hedge program. The Staff made a similar recommendation for the 2012-2013 ACA case and the Company agreed to incorporate the Staff recommendation in its risk management strategy.

VI. RECOMMENDATIONS

Based on the analysis discussed above, Staff recommends the Commission issue an order directing Laclede to:

1. Establish the following ACA account balances shown in the table below to reflect the under or (over)-recovery balances as of September 30, 2014.

   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.

	Firm Sales non-LVTSS	**Firm Sales LVTSS**	**Interruptible Sales**	**LP Sales**	**Firm Transportation**	**Basic Transportation**	**Vehicular Fuel**
ACA Balance per Filing	$ 16,149,759	$ 541,961	$ 227,086	$ 43,112	$ (500,249)	$ (519)	$ 146,245
Staff Adjustments	$0	$0	$0	$0	$0	$0	$0
Staff Recommended ACA Balance	$ 16,149,759	$ 541,961	$ 227,086	$ 43,112	$ (500,249)	$ (519)	$ 146,245

2. Respond to the Staff recommendations in the Reliability and Gas Supply Analysis section regarding (A) Laclede's Gas Supply Planning Request for Proposal (RFP) Process – Documentation of Supply Bids Received, Bid Evaluation, and Supply Award Process (B) Competitive Bidding for Short Term Supply, (C) Gas Supply Reservation (Supply Demand) Charges, (D) Recent Cold Weather Data Available to Update Laclede Demand/Capacity Analysis, (E) Laclede Planning Documents, and (F) Large Volume Transportation and Sales Service Customers.

3. Respond to the Staff recommendations in the Hedging section.

4. Respond to the Staff recommendations in the Affiliate Exchanges section.

5. Respond to the recommendations herein within 60 days.

ATTACHMENT A

HAS BEEN DEEMED

HIGHLY CONFIDENTIAL

IN ITS ENTIRETY

ATTACHMENT B

HAS BEEN DEEMED

HIGHLY CONFIDENTIAL

IN ITS ENTIRETY

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Purchased Gas Adjustment (PGA) Filing	))	Case No. GR-2014-0231
In the Matter of Laclede Gas Company's Purchased Gas Adjustment Filing	))	Case No. GR-2015-0110 (consolidated)

AFFIDAVIT OF KWANG Y. CHOE, PhD

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Kwang Y. Choe, PhD and on his oath states 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
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 18th day of December, 2015.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Purchased Gas Adjustment (PGA) Filing	))	Case No. GR-2014-0231
In the Matter of Laclede Gas Company's Purchased Gas Adjustment Filing	))	Case No. GR-2015-0110 (consolidated)

AFFIDAVIT OF ANNE M. CROWE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Anne M. Crowe and on her oath states that she is of sound mind and lawful age; that she contributed to the foregoing Staff Recommendation 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
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 18th day of December, 2015.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Purchased Gas Adjustment (PGA) Filing	))	Case No. GR-2014-0231
In the Matter of Laclede Gas Company's Purchased Gas Adjustment Filing	))	Case No. GR-2015-0110 (consolidated)

AFFIDAVIT OF LESA JENKINS, P.E.

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Lesa Jenkins, P.E. and on her oath states that she is of sound mind and lawful age; that she contributed to the foregoing Staff Recommendation in Memorandum form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Lesa A. Jenkins
Lesa Jenkins, P.E.

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 18th day of December, 2015.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Purchased Gas Adjustment (PGA) Filing	))	Case No. GR-2014-0231
In the Matter of Laclede Gas Company's Purchased Gas Adjustment Filing	))	Case No. GR-2015-0110 (consolidated)

AFFIDAVIT OF KATHLEEN McNELIS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Kathleen McNelis and on her oath states that she is of sound mind and lawful age; that she contributed to the foregoing Staff Recommendation in Memorandum form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Kathleen McNelis
Kathleen McNelis

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 18th day of December, 2015.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377