MEMORANDUM

TO: Missouri Public Service Commission Official Case File,
Case No. GR-2015-0203 - Missouri Gas Energy

FROM: Anne Crowe, Regulatory Auditor - Procurement Analysis
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/s/ David M. Sommerer 12/12/16
Project Coordinator/ Date

/s/ Jeffrey A. Keevil 12/12/16
Staff Counsel's Office/ Date

/s/ Derick A. Miles P.E., 12/12/16
Utility Regulatory Engineer II/ Date

SUBJECT: Staff's Recommendation in Missouri Gas Energy's 2014-2015 Actual Cost Adjustment Filing

DATE: December 12, 2016

I. EXECUTIVE SUMMARY

On October 28, 2015, Missouri Gas Energy ("MGE" or "Company"), a division of Laclede Gas Company, filed its Actual Cost Adjustment for the 2014-2015 period in case GR-2015-0203. This filing contains the Company's ACA account balance calculation.

The Commission's Procurement Analysis Unit ("Staff") reviewed and evaluated MGE's billed revenues and actual gas costs for the period of July 1, 2014, to June 30, 2015. The Staff examined MGE's gas purchasing practices to determine the prudence of the Company's purchasing and operating decisions, including:

(1) A reliability analysis of estimated peak cold day requirements and the capacity levels needed to meet those requirements,

(2) The Company's rationale for its reserve margin for a peak cold day,

(3) A review of normal, warm and cold weather requirements and the gas supply plans for meeting these requirements, and

(4) A review of MGE's hedging for the period to determine the reasonableness of the Company's hedging plans.

At this time, Staff has determined a total adjustment in the amount of $ (319,282.93) to MGE's June 30, 2015 ACA account balance as shown in the table below. Staff's recommended adjustments are explained in the Actual Gas Cost and Billed Revenue section of this recommendation.

An under-recovery is an amount that is owed to the Company by its customers and is shown in the table below as a positive number. An over-recovery reflects an amount that is owed to the customer by the Company and would be shown as a negative number. MGE has an over-recovery.

Account	6-30-15 Ending Balance per MGE Filing	Staff Proposed Adjustment	6-30-15 Staff Recommended Ending Balance
ACA Balance	$ (5,305,121.74)	$ (319,282.93)	$ (5,624,404.67)

Additionally, Staff recommends the Commission order the Company to respond to this Staff Recommendation Memorandum within 45 days.

This ACA Memorandum is organized into the following sections:

Each section explains Staff's concerns and recommendations.

STAFF'S TECHNICAL DISCUSSION AND ANALYSIS

II. BACKGROUND

MGE's primary service areas are: Kansas City, St. Joseph and Joplin. For the 2014/2015 ACA, MGE reports an average of 443,608 residential customers, 61,547 commercial customers, 295 industrial customers, and 1,388 transport customers, for a total of 506,838 customers.

MGE transports its gas supply over Panhandle Eastern Pipe Line (PEPL), Southern Star Central Gas Pipeline ("SSC"), Tallgrass Energy Partners (previously Kinder Morgan Interstate Gas Transmission, KM), and Rockies Express Pipeline ("REX").

III. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

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 to review the Company's planning for gas supply, transportation, and storage to meet its customers' needs. For this analysis, Staff reviewed the LDC'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 reserve margin, and natural gas supply plans for various weather conditions.

Although Staff has proposed no financial adjustments for the 2014/2015 ACA period related to Reliability Analysis and Gas Supply Planning, Staff has the following comments, concerns, and recommendations:

A. Capacity Planning

For its short term and long-term monthly gas requirements and peak day requirements planning, the Company refers to its Demand/Capacity Analyses dated January 2013 (January 2013 Analysis) received by Utility Services 1/31/2013 and provided by MGE in Case No. GR-2013-0422, DR57.

The Demand/Capacity Analysis is developed by MGE to project natural gas demand and compare those projections to the Company's pipeline transportation capacity for the three areas of Kansas City, Joplin, and St. Joseph.

1. Frequency of Capacity Analysis

Staff concerns regarding the frequency of MGE's review of its capacity requirements were included in the 2013/2014 ACA recommendation, GR-2014-0324. Those concerns continue for the 2014/2015 ACA.

Per the requirements of the Commission Order Approving Stipulation and Agreement and Authorizing Merger in GM-2011-0412, MGE is to formally conduct a comprehensive evaluation of interstate and intrastate transportation and storage capacity and costs as deemed necessary by MGE but no less frequently than every three years. Because the last Demand/Capacity Analysis is for January 2013 and was received January 31, 2013, Staff anticipated receiving the next MGE Demand/Capacity Analysis no later than January 2016. MGE's response to the 2013/2014 ACA stated its analysis was due September 1, 2016. The Staff Reply in GR-2014-0324, MGE 2013/2014 ACA, stated:

> The difference in the January 2016 versus September 2016 due date is not a major concern for Staff. However, the Stipulation and Agreement ("S&A") states the comprehensive analysis shall be conducted no less frequently than every three years. It does not require the Company to wait three years to update its analysis. Each winter month of 2013/2014 was colder than normal and analysis of that cold winter data would have provided the Company with critical information about any changes in capacity it would need for a peak day for each MGE service area. Reasonable Company planning would have recognized the need to analyze the cold weather usage data from 2013/2014 so that the analysis results would be available for its planning for the 2014/2015 winter and would not have waited over three years to update its January 2013 Demand/Capacity Analysis.

The winter data reviewed in the January 2013 Demand/Capacity Analysis was data from 2002/2003 through 2011/2012 that included five winters that were warmer than normal and only two winters that were more than 5% colder than normal (both were 108% of normal). If MGE provides a report in September 2016, MGE did not evaluate its capacity plans following the cold winter of 2013/2014 until planning for 2016/2017 even though the data would have been available for planning for the 2014/2015 and 2015/2016 winters. MGE had available to it data for the 2013/2014 winter that was 116% of normal weather with every month being colder than normal (November through March ranged from 110% of normal to 127% of normal heating degree days). The decision to wait to analyze and consider the 2013/2014 data for its capacity planning until the 2016/2017 winter was not responsible planning for its supply, transportation capacity, and system operations. Such analysis could have revealed that (1) additional capacity is needed for one or more areas, (2) less capacity is needed in one or more areas, (3) supply plans should be modified, and/or (4) no change is needed for transportation capacity, supply plans and/or or system operations.

2. MGE's Peak Day/Design Day Methodology for the Three Service Areas

Staff's concerns with the MGE methodology in calculating peak day requirements (also referred to as design day requirements) are documented in prior ACA recommendations and in testimony in Case No. GR-2003-0330. Staff's comments for MGE's January 2013 Demand/Capacity Analysis are included in the 2012/2013 ACA recommendation, Case No. GR-2013-0422, and the 2013/2014 ACA recommendation, Case No. GR-2014-0324, and are repeated below:

Staff recommends MGE continue to evaluate whether its peak day methodology is reasonable and revise its planning as necessary to adequately prepare for peak day requirements.

- MGE's methodology for subtracting a differing baseload each winter based on average July/August usage is not reasonably supported. MGE does not support why it would expect usage in July and August to represent baseload usage in the winter months. Customer habits could change for winter months. MGE subtracts the average July/August baseload, a different value each year, and then determines whether it believes another baseload amount (y-intercept) is significant. It treats the y-intercept like a variable, but does not include the variable in the data set considered in its regression analysis. It considers other factors as variables, such as heating degree days (HDD), Trend, and Weekday-Weekend, and each of these variables has a value in the data considered in the regression analysis.

- MGE relies on a few data points over a 10 year period. MGE should consider additional data points for more recent years, excluding older data because customer habits and systems (appliances, insulation, etc.) may have changed. The more recent data could still be limited, such as by including only data with temperatures below a specified temperature. A chart of more recent data may assist MGE in determining a reasonable break point for the data to include in the analysis.

- In its regression analysis MGE sets the y-intercept to zero and reports a high R-square. Literature on regression analysis notes problems with the R-Square calculation when the intercept is set to zero such as obtaining different outputs using different software and diminishing the model's fit to the data.[1]

  The Adjusted R-Squared for the winter data is as follows:

Reliability Analysis and Gas Supply Planning, Table 1	
Adjusted R-Squared	Kansas City
January 2013 Demand/Capacity Analysis DR No. 0059	0.961
MGE Workpapers, GR-2013-0422 DR No. 0059 Same data as above, but other Excel output	0.267
Staff Regression of Same Data, but not setting y-intercept = 0	0.552

[1] Eisenhauer, Joseph. (2003). Regression through the Origin. *Teaching Statistics,* Volume 25, Number 3

3. Capacity and Reserve Margin for MGE's Three Service Areas

For its determination of whether it has sufficient capacity for its design peak day requirements for each service area, the Company refers to its January 2013 Analysis. MGE is paying for firm market area capacity, but it is not all deliverable to each area for a peak day. MGE uses some of the pipeline capacity to transfer natural gas from one pipeline to another to get the natural gas to the appropriate delivery areas. For its analysis of required upstream capacity, MGE refers to its SSC Production Area and Market Area Requirements and its analysis in the 2013/2014 ACA, GR-2014-0324, DR75, which first impacts the 2014/2015 winter. In the 2012/2013 ACA, MGE referred to a similar analysis in Case No. GR-2013-0422, DR73.

MGE should ensure that it has the appropriate contractual MDQ capacities for each and every pipeline interconnect to MGE's distribution system based upon flow study and other modeling of natural gas pressure and flow requirements for various severe weather scenarios.

Staff concerns are the same as expressed by Staff in the 2012/2013 ACA (GR-2013-0422) and the 2013/2014 ACA (GR-2014-0324) for MGE insufficiently documenting in its Demand/Capacity Analysis the capacity available for each area (Kansas City, St. Joseph, and Joplin) for the design peak day in each area. In summary, there were concerns with inconsistent reporting of available capacity for the St. Joseph and Kansas City areas and incorrect reporting of reserve margin for the Kansas City area. MGE's Demand/Capacity Analysis must not assume that the total contracted capacity is available for its design peak day. When making decisions regarding contract extensions and revisions, MGE should have updated peak day estimates and reserve margins that accurately reflect the capacity that is available to deliver natural gas to each area. The capacity for each area must include any transfer of capacity from St. Joseph to Kansas City and reduction because some of the pipeline capacity is used to transfer gas from one pipeline to another such as when MGE is transferring natural gas because of the SSC TSS requirement that 1/3 to 1/2 of the gas must come from flowing supplies when MGE requires the maximum daily transportation quantity and the remaining may come from storage.

B. <u>Documentation of Gas Supply Awarded</u>

An LDC typically has natural gas supplies from various types of supply agreements including baseload/term, swing/call, daily/spot agreements. An LDC may also have asset management agreements. An LDC may have storage contracts for injections and withdrawal of natural gas.

- Baseload (or term) supply agreements are for the same contracted quantity to flow each day of the month during the term of the agreement (one month or multiple months). Baseload/term supply agreements may be set up in the month prior to the date of flow or may be set up many months in advance of the flow month.

- Swing (or Call) supply agreements have a specified maximum daily quantity, but allow nominations of zero up to the maximum daily quantity. Swing supply agreements may be for one or multiple months and are generally set up prior to the beginning of the winter. Swing agreements provide the LDC with flexibility to increase or decrease nominations, daily if needed, in response to changing weather and customer requirements and for flexibility in managing storage balances, but without the necessity to be in the daily market trying to find natural gas supplies.

- Daily (or spot) agreements can be contracted for a term of one day or multiple days. Daily/spot gas can be set up one day or many days prior to the date of flow.

1. Baseload and Call Agreements Awarded in Response to Request For Proposal

MGE's GR-2015-0203, DR45 response includes Excel spreadsheet attachments summarizing the bids received for natural gas to flow in the 2014/2015 winter and summer 2015. The DR45 response also includes pdf files with copies of the supplier responses to the 2014/2015 winter request for proposal (RFP) and summer 2015 RFP.

Staff concerns with the MGE RFP evaluation and award process are similar to that in the 2012/2013 ACA, GR-2013-0422 and the 2013/2014 ACA, GR-2014-0324.

The MGE RFP response evaluation does not indicate which bids were awarded. Staff must open each MGE dealsheet and compare it to the bids and the Monthly Gas Supply Summaries to determine which supply was awarded in response to the winter RFP process and summer RFP process and which were awarded outside of the RFP process. Staff would expect the Company to include in its evaluation a listing of the awarded contracts for each RFP process and a list of contracts awarded outside the RFP processes, including the justification. MGE's response to the 2013/2014 ACA recommendation, GR-2014-0324 states it agrees to revise the Excel spreadsheet on RFP responses commencing with it next ACA period for Staff to more easily determine winning bidders. Staff notes that this should also allow the Company's internal auditors to review the MGE supply bid and award process. MGE's response was filed in February 2016, and the next ACA period following that response is 2016/2017.

The MGE summer 2015 RFP evaluation did not include all of the bid responses. DR45.2 explains that "Company left the responses off the summer 2015 RFP evaluation report in error." MGE should review its process for documenting the bids received.

2. Terms of supply agreements insufficiently documented

MGE's winter natural gas supply request for proposals allows supply to come from anywhere, or from secondary points, but requires delivery to primary points when constrained. When awards are made that contain these provisions for secondary and primary delivery for the ACA, MGE included the requirements in its internal documents which it calls dealsheets, but Staff found instances in the documents with its suppliers (transaction confirmations and instant messages) that do not contain the provision to deliver to primary points if constrained.

Staff recommends MGE review its transaction confirmations and instant messages with natural gas suppliers to assure that the supply agreements contain the necessary details regarding when secondary delivery is allowed and when primary delivery is expected. This recommendation is similar to that in the 2013/2014 ACA, GR-2014-0324.

3. Gas Supply and Transportation Standards of Conduct

As per the Commission Order Approving Stipulation and Agreement in GC-2011-0098 (effective 8/24/2013) and as referenced in the Order approving Stipulation and Agreement in GM-2013-0254 (effective 7/31/2013), the Company was to implement all provisions of the Gas Supply and Transportation Standards of Conduct (Standards of Conduct) within no later than 10-days after the effective date of the Commission Order approving the Stipulation& Agreement in GC-2011-0098. The Standards of Conduct contains among other things, the Company's dealings with natural gas suppliers, including its dealings with affiliated suppliers. A copy of the Standards of Conduct is attached as Appendix 2.

a. Documentation of gas supplies for multi-month periods

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The Company must comply with the requirements in the Standards of Conduct for purchases of gas supplies for multi-month periods. As stated in the Standards of Conduct, "The intent is **to gain the broadest practical participation by eligible suppliers in submitting competitive supply bids for the supply location(s) where Laclede purchases gas**."

b. *Documentation of short term purchases of gas supplies*

The dealsheets MGE provided in the invoices and in the DR73 disk do not contain details of the competitive bidding process for the short term purchases of gas supply (one month or less), which includes purchases for 1-day or multiple days.

Unlike past ACAs, the dealsheets for the 1 or 2-month supplies in the 2014/2015 ACA do not provide details of other suppliers contacted or the bid prices, if bidding.

The Company must comply with the requirements in the Standards of Conduct for short term purchases of gas supplies (purchases for 1-month or less).

The Company response to GR-2015-0203, DR48 states the Company has determined an RFP process is not practical for most daily purchases. It further states: "Now that the Company's 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."

Staff notes that the S&A did not require an RFP process, but a competitive bidding process. It further required a documented information exchange process. The S&A refers to a process that may rely on instant messaging, emails, telephone calls, postings on a Company-developed website, awards made on an electronic trading platform (not just price discovery),or some other mechanism to notify bidders and/or Laclede. Staff maintains that the Standards of Conduct, section B.2., allows flexibility in the Company's approaches to competitive bidding for short term purchases of gas supply. As noted in the Standards of Conduct, "The intent is **to gain the broadest practical participation by eligible suppliers in submitting competitive supply bids for the supply location(s) where Laclede purchases gas**."

c. *Documentation of unsolicited requests that MGE purchase supply*

MGE is not maintaining documentation of unsolicited gas supply per the requirements of the Standards of Conduct.

In response to GR-2015-0203, DR48.2, MGE states, "During this ACA period the Company did not keep a log of unsolicited gas supply offers for either accepted or unaccepted offers." MGE further states, "Starting in late 2015, the Company began saving these communications electronically. So going forward, we will be able to determine whether an offer was solicited or unsolicited."

The Company must comply with the documentation requirements for purchases of gas supplies for multi-month periods and short term purchases, and unsolicited requests that MGE purchase gas supply as required by the

Commission Order Approving Stipulation and Agreement and Authorizing Merger in GM-2013-0254 and the Order Approving Stipulation & Agreement in GC-2011-0098.

In response to GR-2015-0203, DR48.1, MGE states, “The Company will propose changes to the Standard of Conduct in regards to daily purchases that hopefully will be acceptable to the Staff. The Company has previously committed to providing these proposed changes by April 29, 2016.”

The Staff comments regarding MGE purchase of unsolicited gas supply were also in the 2013/2014 ACA Staff Recommendation and there are outstanding issues in that case and it should remain open.

C. <u>Monthly Supply / Demand Summary</u>

One of the documents used by MGE for its monthly supply planning is its monthly Supply/Demand Summary.

1. Peak Day Estimate in MGE Supply/Demand Summary

For 2014/2015, MGE's Monthly Supply/Demand Summary takes its peak day from the MGE January 2013 Demand/Capacity Analysis, Table F-4, but it uses the estimates for 2012/2013 instead of 2014/2015.

This is not a material issue for this ACA, but MGE should review its planning to assure it is using the correct estimates from its Demand/Capacity Analyses.

This issue is similar to that in the 2012/2013 ACA, GR-2013-0422 and 2013/2014 ACA, GR-2014-0324.

2. Supply Planning for Warm Weather

MGE’s Monthly Supply/Demand Summaries contain daily estimates for “Average Ultimate Warm”. These estimates are different from the warm estimates in MGE’s January 2013 Demand/Capacity Analysis. Reviewing its daily supply plans for a warm day is appropriate because MGE could have much lower supply requirements for a warm day compared to that needed for a warm month.

MGE’s Supply/Demand Summaries warm estimates are developed from data in its peak day estimate that only considered high usage days that were also in the top ten coldest days for each winter season and modifies those results to obtain its estimates for “Average Ultimate Warm”. MGE reviews only cold weather data and makes no attempt to review warm weather usage in the winter months. The high usage analysis should not be used to estimate “Average Ultimate Warm”.

MGE should review and update its methodology for estimating warm weather usage for its Supply/Demand Summaries. This issue is similar to that in the 2012/2013 ACA, GR-2013-0422 and 2013/2014 ACA, GR-2014-0324.

D. Documentation of Off-System Sales and Capacity Release Processes and Procedures

MGE states it has no policies, processes, and procedures for off-system sales (OSS) and capacity releases (DRs 82, 48.4).

The Gas Supply and Transportation Standards of Conduct described above applies to both the Laclede and MGE Divisions of Laclede Gas Company. The requirement for documentation of OSS and capacity release processes and procedures is as follows:

> H. Off-System Sales (OSS) and Capacity Release Protocols
> In recognition that markets for OSS and capacity releases can vary depending on weather and availability of supply and capacity options, and in recognition that Laclede holds firm capacity in areas not used to serve its native load and the reservation costs of that firm capacity is charged to Laclede's customers, Laclede will routinely evaluate its processes for soliciting buyers to maximize net revenues for OSS and capacity releases.
>
> Laclede will take necessary actions to assure reasonable participation by buyers of its OSS and capacity releases. Laclede will take necessary actions to assure documentation is developed and maintained to show compliance with its processes and procedures. (Emphasis added.)

Staff recommends MGE develop and maintain documentation to show compliance with its OSS and capacity release processes and procedures as per the requirements of the S&A. This issue is similar to that in the 2013/2014 ACA, GR-2014-0324, and in its Response to Staff Recommendation, MGE stated it agrees with such recommendation.

IV. ACTUAL GAS COSTS AND BILLED REVENUE

The ACA process compares actual gas costs to billed revenue for the twelve month ACA period.[2] In this ACA period, the Staff found issues with both the company's actual gas cost amounts and billed revenue amounts. The Company's ACA calculation included an estimated amount of gas costs that were $651,319.19 more than the actual gas costs. In addition, there were instances in which the billed revenue recorded in the ACA filing did not agree with the underlying source documents. MGE's billed revenue for its transportation customers was understated by $128,288.74 and billed revenue for its firm sales customers was overstated by $460,325. Staff recommends a single adjustment of $ (319,282.93) which is the sum of the three adjustments discussed above. The sum of the adjustments is shown below. Staff's proposed adjustment has the effect of increasing the Company's over-recovery for the period by $319,282.93.

[2] MGE Tariff Sheet No. 16, section III. CALCULATION OF THE ACTUAL COSTS ADJUSTMENT (ACA)

	Staff Adjustments
Decrease Gas Costs	$ (651,319.19)
Increase Billed Revenue	$ (128,288.74)
Decrease Billed Revenue	$ 460,325.00
Total Proposed Adjustment	**$ (319,282.93)**

V. SCHOOL TRANSPORTATION PROGRAM BALANCING AND CASH OUTS

This is a carryover issue from prior ACA periods. Staff continues to have the same concerns in this period as it had in the 2013/2014 and 2012/2103 ACA periods and they are repeated below.

In accordance with Section 393.310 RSMo, MGE's tariff permits schools to participate in a School Transportation Program (STP). This program allows the schools to aggregate purchasing of their gas supplies and pipeline transportation. Schools choosing to participate in this program are responsible for obtaining their own natural gas supplies and interstate pipeline capacity to transport their gas to MGE's system. MGE then transports the schools' gas to their premises.

"Balancing" by a transportation customer or a pool of transportation customers means the amount of gas put into MGE's system (receipts) is equal to the amount used or taken out of MGE's system (deliveries). When a transportation customer puts more or less gas into MGE's system than they use, this is referred to as an "imbalance."

Transportation customers' imbalances may impact MGE's management of its gas supply which can have an effect on the gas costs of its firm sales customers. Transportation customers' imbalances could cause MGE to buy additional, higher-priced gas in the daily gas market for those imbalances; inject or withdraw natural gas in storage for those imbalances; and/or increase or decrease MGE's monthly gas supply purchases. All of these actions could cause the firm sales customers' gas costs to be higher than they otherwise would have been.

MGE's transportation tariffs contain a "Cash Out" provision which reconciles a transportation customer's imbalance by requiring MGE to either buy or sell gas to the transportation customer equal to the customer's monthly imbalance. At the end of each month, if the transporter used more gas than it put into MGE's system, then the transporter pays MGE for the additional gas supplies it used. If the transporter used less gas than it put into the system, MGE purchases this gas from the transportation customer through a credit on the customer's bill. The purchase or sale price of supply is tied to a monthly index and either increases or decreases depending upon the magnitude of a transporter's imbalance. The greater the imbalance, the higher price the transporter pays or the more discounted price it receives for its gas supply. The Cash Out provision is important because it provides an incentive for transportation customers to minimize their imbalances. The cost of the gas purchased or sold to transportation customers through the Cash Out process flows through the PGA/ACA account.

According to MGE's tariff Sheet No. 58, the STP customers are subject to the Cash Out of their monthly imbalances. Staff found in this ACA period, as in the prior ACA period, MGE's practice with regard to the imbalances of its STP customers is not consistent with its tariff. MGE is carrying over the STP customers' imbalances from month-to-month rather than Cashing Out the imbalances for these customers on a monthly basis. Schools in the MGE STP were on numerous billing cycles in this ACA. Tariff Sheet No. 57 states, "The usage of eligible school entities enrolled in the STP may be aggregated into pools for purposes of nominations, balancing, assessment of unauthorized use charges and billing. …All members of a pool shall be on the same billing cycle."

Staff evaluated the impact of the STP imbalances based on the imbalance carry over data provided by the Company for this ACA period. Staff calculated as best it could what the Cash Out amount would have been if MGE had Cashed Out its STP customers' imbalances according to its tariff. Based on Staff's calculation, Staff determined that there was no harm to the firm sales customers; therefore Staff proposes no overall adjustment to the ACA account for this ACA period related to STP Cash Outs. Although there was no harm to firm sales customers for this ACA period, there may be in future ACA periods.

As a result of the prior ACA recommendation, the parties met and exchanged information to try to resolve this issue. At this time, Staff and the Company are continuing to attempt to reach a mutually agreeable resolution on this issue which would be filed with the Commission for its approval.

VI. HEDGING

In its review of MGE's purchasing practices, the Staff reviewed the Company's hedging transactions. The Staff also reviewed the Company's natural gas hedging policy, and its 2014 – 2015 hedging strategy.

The Company executed the hedging transactions for the 2014-2015 ACA period based on a 24-month hedging plan. MGE combined storage and financial instruments to hedge portions of the volumes needed for the winter heating season, November 2014 through March 2015. Financial swaps are a type of financial instrument that allow the conversion of a floating or variable gas price arrangement into a fixed price arrangement. **

** Call options put a ceiling on prices while allowing participation in downward price movements albeit at the cost of a premium for the option. For example, out-of-the-money call options may have a strike price that still affords significant protection near current market prices but at a reduced premium cost. The Company purchased most of the financial hedges related to the winter of 2014-2015 from November 2012 through November 2014. MGE hedged 64% of normal winter requirements with storage and financial instruments.

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Staff reviews the prudence of the Company's decision-making based on what the Company knew or reasonably could have known at the time it made its hedging decisions. The Company's hedging planning should be flexible enough to incorporate changing market circumstances. The Company should evaluate its hedging strategy in response to changing market dynamics in light of how much the existing hedging strategy actually benefits its customers while balancing market price risk. For example, the Company should periodically review its hedging strategy and keep it up-to-date. Another example is that the Company should continue to evaluate its current strategy of financially hedging summer storage injections regarding potentially less % coverage and using more cost-effective financial instruments under the current market where the market prices have become relatively less volatile. Additionally, the Company should continue to evaluate whether extensive reliance on swaps and the volumes associated with them are appropriate. A part of the Company's hedging strategy was based on price view (described as a discretionary approach above), that is, where the Company executed some of its hedging transactions when the Company viewed the prices were relatively low. The Company should be aware of any fundamental shifts in the market dynamics, while being cautious on the market views. Staff notes that the Company has recently implemented some modifications to its hedging strategy. Staff will continue to monitor the Company's modification of its hedging strategy over time.

Finally, the Staff recommends the Company continue to assess and document the effectiveness of its hedges for the 2015-2016 ACA period and beyond in a meaningful way. The analysis should include identifying the benefits/costs to customers based on the outcomes from the hedging strategy, and evaluating any potential improvements on the future hedging plan and its implementation. For example, a summary of how the Company's hedges have performed against market pricing, i.e., the impact of purchases without the hedges, helps inform hedging planning discussions moving forward. 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. The Staff recommends that MGE develop and update this summary at the end of each winter or ACA period.

[3] MGE received hedging advice for its financial hedging transactions from a consulting firm, Gelber and Associates during this ACA period. Staff notes that as of September 2014, MGE no longer receives the consulting service from Gelber and Associates.

VII. RECOMMENDATIONS

Staff recommends the Commission issue an order directing MGE to:

1. Establish the following ACA account balance shown in the table below to reflect the under-recovery balance as of June 30, 2015. An under-recovery is an amount that is owed to the Company by its customers and is shown in the table below as a positive number. An over-recovery reflects an amount that is owed to the customer by the Company and would be shown as a negative number. MGE has an over-recovery.

Account	6-30-15 Ending Balance per MGE Filing	Current ACA Period Staff Proposed Adjustment	6-30-15 Staff Recommended Ending Balance
ACA Balance	$ (5,305,121.74)	$ (319,282.93)	$ (5,624,404.67)

2. Respond to the Staff comments, concerns, and recommendations in the Reliability Analysis and Gas Supply Planning section related to capacity planning, documentation of gas supply awarded, monthly Supply/Demand summary, and documentation of off-system sales and capacity release processes and procedures.

3. Respond to the comments, concerns, and recommendations expressed by Staff in the Hedging Section.

4. File a written response to all comments, concerns and recommendations included in this Staff Recommendation Memorandum within 45 days.

Gas Supply and Transportation Standards of Conduct

To assist in ensuring that energy-related transactions between Laclede Gas Company ("Laclede" or "Company") and its affiliates are conducted in a manner fully consistent with the interests of the Company's utility customers, including their interest in having such transactions priced and accounted for in a reasonable and appropriate manner, Laclede agrees to formalize and comply with the following standards of conduct and associated document requirements relating to such transactions:

A. Purchases of gas supplies for multi-month periods (purchases for longer than 1-month)

1. Laclede will acquire multi-month gas supplies in accordance with a competitive bidding process in which requests for proposals (RFP's) are submitted by Laclede to a list of eligible suppliers at the various supply locations connected to the pipelines on which Laclede holds firm transportation or through another competitive bidding process. 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 communications with suppliers), and (d) effective monitoring and controls.

2. Such RFP process shall be open to all gas suppliers who wish to bid.The intent is **to gain the broadest practical participation by eligible suppliers in submitting competitive supply bids for the supply location(s) where Laclede purchases gas**. Once such a process is reasonably developed and appropriately implemented and effectively monitored and controlled, the results of that process are intended to establish the fair market price for the purchase. Laclede shall provide with its annual CAM report submission an explanation of any credit, performance or other criteria that Laclede takes into consideration in determining which suppliers are sent RFPs as part of the RFP process.

3. In the event a gas supply contract for firm gas supply is awarded to an affiliate as a result of the RFP or other competitive bidding process, the affiliate shall be held to the same performance requirements as non-affiliated suppliers.

4. In the event a gas supply contract is awarded, Laclede shall maintain the following contemporaneous documentation: (a) any diversity, credit, or reliability-related volume limitations placed on the maximum volumes Laclede will purchase from an individual supplier or from any one supplier on a specific pipeline (broken down by baseload, combo, and swing); (b) an explanation of the diversity, credit and/or reliability-related reasons for imposing such limitations; (c) a description of the process used to transmit the supply request to all eligible suppliers, evaluate bids, and negotiate final prices and terms; (d) a list of all suppliers that were sent each RFP;(e) a complete summary of all bids received and all prices accepted, together with copies of all underlying documents, contracts and communications; (f) a summary and explanation of suppliers disqualified for credit, performance or other criteria, and (g) a copy of the policy or procedure employed by Laclede for awarding contracts in instances where an affiliate and an unaffiliated supplier have offered identical pricing terms. For phone calls or texts, Laclede shall maintain contemporaneous logs documenting the discussions and decisions.

5. In the event a gas supply contract is awarded to an affiliate at a location in which no other contracts were awarded, the Company shall maintain contemporaneous documentation showing that the affiliate's bid price was equal to or lower than the bids received from non-affiliated suppliers, and that any upward or downward adjustment in the final contract price was justified by changes in the market.

6. In the event a gas supply contract is awarded to an affiliate at a location at which Laclede also awarded gas supply contracts to non-affiliated suppliers, the Company shall maintain contemporaneous documentation showing that the price established under the contract awarded the affiliate was within or lower than the range of prices established under contracts awarded to entities other than the affiliate.

7. If the affiliate's bid price or contract price does not meet the criteria in paragraphs 5 or 6, Laclede may not award the gas supply contract to the affiliate, unless the Company can demonstrate and contemporaneously document that a more favorable bid was rejected for legitimate reasons relating to the rejected bidder or bidders' creditworthiness, performance history (or lack thereof), or other consideration bearing on the fitness and reliability of the bidder to provide the requested service.

8. In the interests of optimizing the competitive benefits of the RFP process, the RFP will permit suppliers to propose alternative ways of satisfying the basic quantity, reliability, delivery and pricing terms of the RFP in addition to those specifically contemplated by the RFP, provided that the RFP shall explicitly advise suppliers that proposing such alternatives is permissible. The RFP may also utilize ranges for such quantity, reliability, delivery and pricing terms. In the event any such alternative produces a supply arrangement that is at least as favorable in its basic terms as other initial bids received by the Company during the RFP process then there shall be no need to rebid the proposed supply arrangement. In the event the Company itself makes a material change in the basic quantity, reliability, delivery or pricing terms of the RFP, or changes the range applicable to such terms, after initial bids have been received then the proposed supply arrangement shall be rebid.

B. Short term purchases of gas supply (one month or less)

1. The Company shall maintain contemporaneous documentation sufficient to establish that its short-term purchases of gas supply are acquired in accordance with a competitive bidding process, taking into account the terms and conditions, location and time at which the purchase was made.

2. The Company shall, within the next six months, develop a documented information exchange process where eligible suppliers will be notified of gas 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. Such process may rely on instant messaging, emails, telephone calls, postings on a Company-developed website, awards made on an electronic trading platform (not just price discovery),or some other mechanism to notify bidders and/or Laclede. The intent is **to gain the broadest practical participation by eligible suppliers in submitting competitive supply bids for the supply location(s) where Laclede purchases gas**. Once such a process is reasonably developed and appropriately implemented and effectively monitored and controlled, the results of that process are intended to establish the fair market price for the purchase.

3. Emergency short term purchases of gas supply may also be made without following the competitive bidding procedure if necessitated by supply reliability considerations, provided that such purchases and the emergency circumstances are documented. Emergency conditions will include, but not be limited to, natural disasters, extreme weather events, well freeze-offs, curtailment of pipeline transportation or storage services, failure of supply, damage to or breakdown of Company facilities, changes in deliveries to the Company's take points that are beyond the Company's control, and other similar or unforeseen events affecting the availability of gas supplies. In the event short term purchases of gas supply are made on an emergency basis, nothing shall be construed as precluding Staff or OPC from raising an issue regarding the reasonableness of the emergency circumstances claimed by the Company and their effect on the propriety of the transaction.

4. For each and every gas supply inquiry and/or award, Laclede shall maintain the following contemporaneous documentation: (a) any diversity, credit, or reliability-related volume limitations placed on the maximum volumes Laclede will purchase from an individual supplier or from any one supplier on a specific pipeline; (b) an explanation of the diversity, credit, and/or reliability-related reasons for imposing such limitations; (c) a description of the process used to transmit and/or receive supply notifications to eligible suppliers, evaluate bids/responses, and negotiate final prices and terms; (d) copies of all written communications and descriptions of all unwritten communications that solicit bids from suppliers; (e) a list of all suppliers that were notified of Laclede's gas supply needs;(f) copies of all bids/responses/ inquiries received and all prices accepted, together with copies of all underlying documents, contracts and communications; (g) a list of all suppliers disqualified for credit, performance or other criteria along with an explanation of the basis for each disqualification; and (h) a copy of the policy or procedure employed by Laclede for awarding contracts in instances where an affiliate and an unaffiliated supplier have offered identical pricing terms. For phone calls or texts, Laclede shall maintain contemporaneous logs documenting the inquiries, discussions and decisions.

C. Sales of gas supply also referred to as Off-System-Sales (OSS)

1. The Company shall maintain contemporaneous documentation sufficient to establish that its sales of gas were made at the fair market price for comparable sales, taking into account the terms and conditions, location and time at which the sale was made. The fair market price shall be determined pursuant to the process described below and any amount received for gas must be sufficient to cover: (i) the highest Cost of Gas Supply (CGS) on the pipeline on which the sale is made, as determined by the CGS schedule referenced in Laclede Gas Company's OSS tariff and as adjusted for any documented exceptions as permitted by such tariff; plus (ii) make some positive contribution to Laclede Gas Company's fixed gas supply costs.

2. The Company shall, within the next six months, develop a documented information exchange process where eligible bidders/buyers will be notified of gas supplies that the Company may have for sale on a given day(s). Such process may rely on instant messaging, emails, telephone calls, postings on a Company-developed website, awards made on an electronic trading platform (not just price discovery)or some other mechanism to notify bidders/potential gas buyers. The intent is **to gain the greatest reduction in gas costs for Laclede's customers consistent with maintaining a reliable supply of gas**. Once such a process is reasonably developed and appropriately implemented and effectively monitored and controlled, the results of that process are intended to establish the fair market price for the sale. For phone calls or texts, Laclede shall maintain contemporaneous logs documenting the inquiries, discussions and decisions.

3. **Unsolicited OSS Requests—** Laclede shall only accommodate unsolicited OSS requests where the Company can operationally provide such supplies without incurring any known penalty or detriment. Laclede shall maintain contemporaneous logs of all instances identifying where it has accommodated and/or refused such requests, including: the identity of the requesting counter-party; the date the request was made; the pricing and quantity of the gas supply requested; the awarded pricing, quantity, receipt/deliver point(s); and any other terms.

D. Releases of transportation or storage capacity by Laclede

1. All Laclede releases of pipeline transportation or storage capacity to an affiliate, including prearranged releases, must be effectuated by posting the release as biddable on the applicable pipeline's Electronic Bulletin Board ("EBB"). The Company shall maintain contemporaneous documentation sufficient to show that such release was made to an affiliate at the highest bid price (the posted release price is considered a bid price), on the pipeline's EBB for that release and that the amount received by the Company was at least sufficient to make a contribution to the Company's fixed pipeline reservation costs.

2. For pre-arranged releases to an affiliate of greater than a month and less than a year, the pre-arranged transaction shall be posted for two consecutive daily posting periods.

E. **Purchases of transportation and storage capacity from the capacity release market by Laclede –** All Laclede purchases of pipeline transportation or storage capacity from an affiliate must be effectuated by releasing and bidding for the capacity on the applicable pipeline's EBB. Laclede shall maintain contemporaneous documentation sufficient to show that the purchase price paid for such capacity was equal to or lower than the price of other comparable transportation alternatives available to the Company to meet the same resource needs. Laclede shall maintain contemporaneous documentation sufficient to show that the affiliate was given no preferential treatment over non-affiliates. Resource needs will be fully documented by the Company and subject to review.

F. **Purchase of unsolicited gas supply —** Laclede shall only consider accommodating unsolicited requests for short-term purchase of gas supply where the Company can operationally take such supplies without incurring any known penalty or detriment. Laclede shall maintain a contemporaneous log of all instances identifying where it has accommodated and/or refused such requests, including: the identity of the requesting supplier; the date the request was made; the pricing and quantity of the gas supply offered; the awarded pricing, quantity, receipt/delivery point(s); and any other terms.

G. **Negotiations with suppliers –** Laclede shall conduct all negotiations with its gas commodity and pipeline suppliers independently and shall at no time seek to tie the terms of any arrangement to any action on the part of the other party that would favor a Laclede affiliate. Nothing herein shall prevent either Laclede or an affiliate from jointly attending customer meetings, events or other functions where multiple customers or suppliers are also present.

H. **Off-System Sales (OSS) and Capacity Release Protocols**

In recognition that markets for OSS and capacity releases can vary depending on weather and availability of supply and capacity options, and in recognition that Laclede holds firm capacity in areas not used to serve its native load and the reservation costs of that firm capacity is charged to Laclede's customers, Laclede will routinely evaluate its processes for soliciting potential buyers to maximize net revenues for OSS and capacity releases.

Laclede will take necessary actions to assure reasonable participation by buyers of its OSS and capacity releases. Laclede will take necessary actions to assure documentation is developed and maintained to show compliance with its processes and procedures.

I. **Document Retention –** All documentation and records that must be maintained in accordance with the provisions of these Standards of Conduct shall be maintained for a minimum of six years.

J. **Future Revisions –** It is expressly understood that Laclede, the Staff, and the Office of the Public Counsel reserve the right to propose at any time prospective changes to these Standards of Conduct to reflect changing market conditions, the potential implementation of new regulatory or operational models for managing gas supply assets, or other developments that cannot be fully anticipated at this time. Any such change must be approved by the Commission before being implemented. See also Sections I. and V.C. of CAM.

K. **Asset Management Arrangements/Agreements –** The CAM and referenced Standards of Conduct do not pertain to Asset Management Arrangements/Agreements (AMAs).Accordingly, if Laclede Gas chooses to use one or more AMAs, Laclede Gas shall document fair market price and fully distributed cost as set forth in 4 CSR 240-40.015 and 40.016, unless and until changes to the CAM and these Standards of Conduct addressing AMAs are approved by the Commission.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's (Laclede) PGA Filing	))	**Case No. GR-2015-0203**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Kwang Y. Choe and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Staff Memorandum; 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, Ph.D.

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 8th day of December, 2016.

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

Jessica Luebbert

NOTARY PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's (Laclede) PGA Filing	))	**Case No. GR-2015-0203**

AFFIDAVIT

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 attached Staff Memorandum; 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 12th day of December, 2016.

Jessica Luebbert

NOTARY PUBLIC

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's (Laclede) PGA Filing	))	**Case No. GR-2015-0203**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Lesa A. Jenkins and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached Staff Memorandum; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Lesa A. Jenkins

Lesa A. 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 12th day of December, 2016.

Jessica Luebbert

NOTARY PUBLIC

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434