MEMORANDUM

- TO: Missouri Public Service Commission Official Case File Case No. GR-2014-0096, Summit Natural Gas of Missouri
- FROM: Phil Lock, Regulatory Auditor Procurement Analysis Kwang Choe, Ph.D., Regulatory Economist – Procurement Analysis Kathleen McNelis, Utility Engineering Specialist III– Procurement Analysis

/s/ David M. Sommerer 10/10/14 Project Coordinator / Date <u>/s/ John Borgmeyer</u> 10/10/14 Staff Counsel's Office / Date

/s/ Lesa Jenkins P.E. 10/10/14 Utility Regulatory Engineer II / Date

- SUBJECT: Staff Recommendation in Case No. GR-2014-0096, Summit Natural Gas of Missouri 2012-2013 Actual Cost Adjustment Filing (formerly Missouri Gas Utility)
- DATE: October 10, 2014

EXECUTIVE SUMMARY

On April 27, 2011 Southern Missouri Gas Company (SMNG) and Missouri Gas Utility (MGU) filed an application for Commission authority to merge, with MGU as the surviving entity (Case No. GM-2011-0354). The parties filed a Unanimous Stipulation and Agreement on September 15, 2011, which the Commission approved on September 28, 2011.

On February 3, 2012, MGU filed to change its name to Summit Natural Gas of Missouri (SNG, Summit or Company). On February 23, 2012, Summit filed tariff sheets to adopt Missouri Gas Utility (MGU) Missouri tariffs. The original tariff sheet bore an effective date of March 5, 2012.

On October 15, 2013, Summit (successor in interest to MGU) filed its Actual Cost Adjustment (ACA) for the 2012-2013 annual period for rates to become effective November 1, 2013. The Procurement Analysis Unit (Staff) of the Missouri Public Service Commission has reviewed the Company's ACA filing. A comparison of billed revenue recovery with actual gas costs will yield either an over-recovery or under-recovery of the ACA balance.



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MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 2 of 18

Staff conducted the following analyses:

- a review of billed revenue compared with actual gas costs,
- a reliability analysis including a review of estimated peak-day requirements and the capacity levels needed to meet these requirements and a review of supply plans for various weather conditions.
- a review of the Company's gas purchasing practices to evaluate the prudence of the Company's purchasing decisions for this ACA period; and
- a hedging review to evaluate the reasonableness of the Company's hedging practices for this ACA period.

Based on its review, Staff recommends the following adjustments to the Company's filed 2012-2013 (over)/under-recovery ACA balances for **Summit's Northern service area**:

Northern Service Area			Staff	
(+) Under-recovery	Filed	Staff	Recommended	
(-) Over-recovery	Balances	Adjustments	Balances	
Prior ACA Balance 8-31-12	(\$74,709)	\$0	(\$74,709)	
Cost of Gas/Storage	\$682,493	(\$3,215)	\$679,278	
Cost of Transportation	\$135,686	\$0	\$135,686	
Revenues – PGA billed	(\$716,785)	\$0	(\$716,785)	
Revenues- ** ** billed	(\$23,406)	(\$5,118)	(\$28,524)	
ACA Approach for Interest	(\$75)	\$0	(\$75)	
Total ACA Balance 8-31-13	\$3,204	(\$8,333)	(\$5,129)	

Based on its review, Staff recommends the following adjustments to the Company's filed 2012-2013 (over)/under-recovery ACA balances for **Summit's Southern service area**:

Southern Service Area			Staff
(+) Under-recovery	Filed	Staff	Recommended
(-) Over-recovery	Balances	Adjustments	Balances
Prior ACA Balance 8-31-12	(\$21,679)	\$0	(\$21,679)
Cost of Gas/Storage	\$666,473	\$0	\$666,473
Cost of Transportation	\$126,058	\$0	\$126,058
Revenues – PGA billed	(\$748,256)	\$0	(\$748,256)
ACA Approach for Interest	\$0	\$0	\$0
ACA cost correction	(\$2,952)	\$2,952	\$0
Total ACA Balance 8-31-13	\$19,644	\$2,952	\$22,596

Staff has one compliance adjustment on Summit's Northern service area for (\$5,118) and one on the Southern service area for \$2,952. Staff has one adjustment on Summit's Northern service area for (\$3,215) related to reliability analysis and gas supply planning pertaining to the Company decision to only fill storage to 85 percent of storage capacity. Staff's concerns



MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 3 of 18

regarding various aspects of this topic are discussed within the Reliability Analysis and Gas Supply and Planning section of this memorandum.

Staff has no adjustments related to hedging; however Staff's concerns/comments are addressed in the Hedging section of the memorandum.

Staff recommends the Commission order the Company to respond to Staff's concerns and recommendations within 60 days.

In summary, Staff's Northern service area adjustments totaled (\$8,333) for the 2012-2013 ACA period. This results in an adjusted over-recovery balance of (\$5,129). There was one adjustment for \$2,952 on the Southern service area. This results in an adjusted under-recovery balance of \$22,596.

STAFF'S TECHNICAL DISCUSSION AND ANALYSIS

Staff's discussion of its findings is organized into the following five sections, which include Staff's concerns and recommendations:

- I. Overview
- II. Billed Revenue and Actual Gas Cost
- III. Reliability Analysis and Gas Supply Planning
- IV. Hedging
- V. Recommendations

I. OVERVIEW

During the 2012-2013 ACA, Summit provided natural gas service to customers in the south and west-central portion of the state including counties of Benton, Camden, Dallas, Greene, Miller, Morgan, Pettis and Polk, also known as the "Southern service area". During January 2013, Summit served approximately 1,070 sales customers on the Southern service area. Southern Star Central Gas Pipeline (SSCGP) serves all customers on Summit's Southern service area. Summit also serves natural gas to customers in the Northwest Missouri counties of Caldwell, Daviess and Harrison, also known as the "Northern service area". During January 2013, Summit served approximately 1,560 sales customers and one transportation customer (** _____ **) on the Northern service area. ANR serves all customers on Summit's Northern service area.

II. BILLED REVENUE AND ACTUAL GAS COST

** ____ ** Billed Gas Supply Charges – Northern service area

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 4 of 18

Imbalance charges are billed to ** _____ ** (as Gas Supply Charges) when ** _____ ** has under-nominated its deliveries to the city gate (deliveries to the city gate that exceed the monthly nomination). Summit's recovery of these Gas Supply Charges, however, did not reflect the Gas Supply Charges billed to ** ______ ** but instead were based on the most currently effective PGA rate. This resulted in a filed revenue recovery of \$23,406. The Gas Supply Charges billed to ** ______ ** should be included in this ACA filing, totaling \$28,524. Revenue recovery should therefore be increased by \$5,118 (\$28,524 - \$23,406) on the Northern Service area to reflect the as-billed ** _____ ** Gas Supply Charges.

Staff recommends Summit ensure compliance with tariff sheet 29A for negative imbalances. Charges from the negative imbalance should include the cost of gas purchased from the Company defined as the greater of (a) Company's PGA rate in effect at the time that the Negative Imbalance is incurred; (b) Company's Weighted Average Cost of Gas in Storage; (c) the highest cost of gas purchased by the Company during the month in which the negative imbalance occurred, inclusive of applicable upstream transportation and fuel assessments; or (d) 105 percent of the monthly index price for the upstream pipeline serving the Company's system plus applicable upstream transportation and fuel assessments. The Company's analysis should include a comparison of the costs described in tariff sheet 29A parts (a) – (d).

ACA Cost Correction – Southern service area

The Company's August 31, 2013 under-recovered ACA balance of \$19,644 for the Southern service area was misstated. Staff made a correction to the filed ACA balance to reflect the proper invoiced costs. These corrections (for certain gas supply and transportation costs) increase the under-recovered ACA balance by \$2,952, for customers on the Southern service area, to a revised under-recovered ACA balance of \$22,596.

Management of Natural Gas Transportation Services

On Summit's Northern service area ** _____ ** had consecutive negative monthly imbalances (nominations less than actual deliveries) from November 2012 to April 2013. ** _____ ** is the only transportation customer on Summit's Northern service area. During this ACA period, KTM, the Company's gas procurement consultant, indicated that it monitored monthly imbalances of ** ______ ** by providing imbalance information to ** ______ ** on its monthly invoices. KTM acts as an agent for Summit and provides gas management services. By contract, the gas management services include the responsibility of managing Summit's (referred to in the contract as "MGU") natural gas transportation services by performing the following:



**

The Company did not appear to closely manage imbalances when monitoring ****** ____ ******'s imbalance account. See Section IIIB of Staff's Reliability and Gas Supply Planning section for further details, including recommendations.

III. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

As a natural gas corporation providing natural gas service to Missouri customers, Summit is responsible for conducting reasonable long-range supply planning to meet its customer needs. Summit must make prudent decisions based on that planning. One purpose of the ACA process is to examine the reliability of the Local Distribution Company's (LDC) natural gas supply, transportation, and storage capabilities. For this analysis, Staff reviewed the LDCs' plans and decisions regarding estimated peak-day requirements and the LDC's pipeline 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.

A. Weather Normal Data

In planning for normal, warmer and colder winters, the Company uses the 30-year normal weather data as a basis of estimating demand in response to normal, warmer and colder winters weather conditions. In the 2012-2013 ACA, the Company used the 30-year normal weather data from 1971-2000. However the most updated 30-year normal weather data from 1981-2010 was available. Staff recommends the Company use the 30-year normal weather data from 1981-2010.

B. Reserve Margin for Summit's Northern and Southern service areas

The Company does not consider variability (e.g. the upper 95 percent confidence interval or standard error) in its peak day estimates when calculating reserve margins. ("Reserve" is the transportation capacity available in excess of the estimated peak day usage.)

For Summit's Northern service area, using the Company's projected customer counts in future years, and the Company's peak day demand estimates, Staff estimates a negative reserve margin (-5.3 percent) as early as the winter of 2014-2015 (considering variability of the peak day estimate by using the 95 percent upper confidence interval estimate of peak day). In addition, the Company's transport customer ** _____ ** had a negative imbalance (actual metered usage exceeded nominations) for many of the days during the 2012-2013 winter, with a maximum negative imbalance of 140 Dth occurring on December 25, 2012, which is about 5 percent of peak day requirements for this system. The Company stated that ** _____ ** is responsible for the direct management of its imbalances; thus the Company does not monitor the ** _____ **



MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 6 of 18

imbalance.¹ The Company and/or its agent must monitor transport customer imbalances so that it can provide adequate notice to transport customers in the event the Company needs this capacity to serve firm sales customers.

For Summit's Southern service area, using the Company's projected customer counts in future years and the Company's peak day demand estimates, Staff estimates a negative reserve margin (-8.7 percent) as early as the winter of 2013-2014 (considering variability of the peak day estimate by using the 95 percent upper confidence interval estimate of peak day), or by the winter of 2014-2015 (reserve margin of -2.9 percent) when not considering the variability of the peak day estimate.

Staff recommends that the Company review its customer growth projections, peak day estimates, and reserve margin to assure it is planning for adequate transportation capacity for peak day for Summit's Northern and Southern service areas and take actions necessary in time to secure sufficient capacity for its peak day requirements.

C. Natural Gas Supply Planning and Decisions, Including Storage

1. Supply Bid Documentation

There were two natural gas supply transactions for natural gas purchased in October 2012 for Summit's Southern service area for which the Company was unable to locate supporting documentation. These two transactions accounted for 46 percent of the total natural gas purchased in October 2012 for Summit's Southern service area. There was one natural gas supply transaction for natural gas purchased in May 2013 for Summit's Northern service area for which the Company was unable to locate supporting documentation. This transaction accounted for 20 percent of the total natural gas purchased in May 2013 for Summit's Northern service area.

Staff recommends that the Company review the processes that are being implemented to ensure compliance with Company recordkeeping procedures. If the Company does not have a formal procedure for documenting transactions completed by telephone, Staff recommends the Company develop such a procedure and monitor for compliance.

2. Vendor Participation

During the 2012-2013 ACA, the Company solicited up to six vendors in its RFPs for natural gas supply. However, the Company typically only received between one and two

¹ Company response to DR 0104(2).

bids for each solicitation. The Company should review its plans to increase vendor participation in response to the low number of bid responses to RFPs.

3. Peak Day Planning

For Summit's Northern service area, the Company's peak day demand estimate for the 2012-2013 winter could have been met by a combination of storage withdrawal, baseload and daily supply contract flowing volumes. For Summit's Southern service area, the Company's peak day demand estimate for the 2012-2013 winter could have been met by a combination of baseload and daily supply contract flowing volumes. The Company had no firm swing/call contracts set up for the winter months.

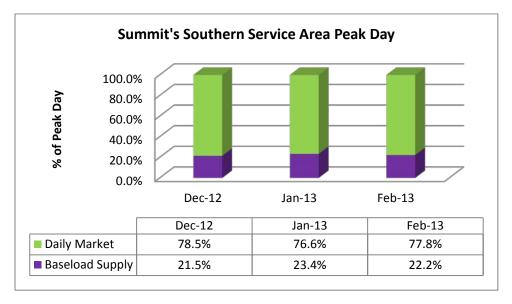
An LDC typically has natural gas supplies from various types of supply agreements including baseload, swing/call, or daily/spot agreements. An LDC may have storage contracts for injections and withdrawal of natural gas.

- Baseload 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 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.

There are generally no reservation charges (also known as supply demand charges) for base load supply agreements or daily/spot supply agreements. Swing/Call supply agreements generally have either fixed reservation charges (a fixed cost even when no natural gas is nominated), or are priced at an index (average of actual trades compiled by a natural gas trade journal) price plus an adder (premium).

During the winter of 2012-2013, for Summit's Southern service area, the Company would have been in the daily/spot natural gas market to purchase over 75 percent of its estimated peak day requirements:

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 8 of 18



Staff is concerned about this reliance on high percentages of daily/spot natural gas to meet peak day requirements. The coldest day during the 2012-2013 winter was January 2, 2013 at 53 HDD (average of high and low temperatures for the day of +12 °F), which was not near the 30-year peak day of 81.5 HDD (average of high and low temperatures for the day of minus 16.5 °F for Sedalia).

The Company's supply planning is a further concern because during December 2012, in addition to daily spot purchases, the Company had to rely on withdrawal of 3,000 Dth of natural gas from Summit's SMNG service area (Rogersville and Branson) storage contract which is covered in a separate ACA case (GR-2014-0097). Summit's Southern service area (Warsaw and Lake of the Ozarks) does not have its own storage contract, but relied on Summit's SMNG storage contract. The withdrawal took place from December 24-27, 2012, and according to the Company, Summit's Southern service area was unable to timely bid out its gas supply requirements due to the weekend/holiday timing constraints in order to meet the demands of unexpected colder weather.

Staff recommends the Company review the reliability of its supply plans to meet peak day requirements, including an evaluation of whether swing/call agreements should be used in its supply portfolio. If the Company plans to utilize the storage of Summit's SMNG service area (Rogersville and Branson) for the requirements of Summit's Southern service area (Warsaw and Lake of the Ozarks), then the cost of that storage should be consistently applied to each of these service areas. The Company should address the criteria and limitations for shared storage in its gas supply plans.

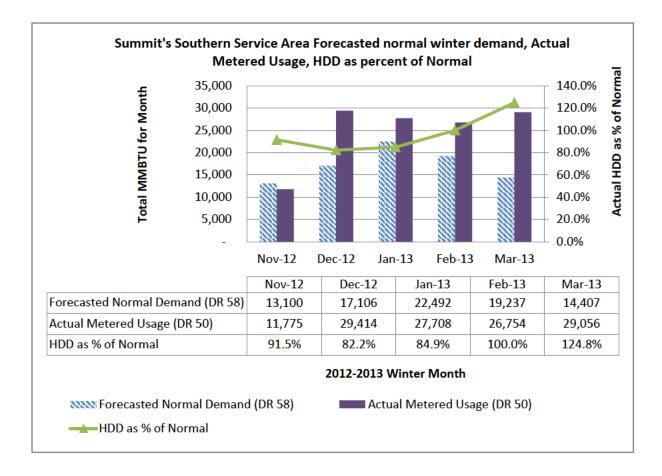
MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 9 of 18

4. Normal, Warm and Cold Winter Planning

Despite the actual winter weather being approximately 99 percent and 96 percent of normal for Summit's Northern and Southern service area systems respectively, the Company's forecasted normal winter demand for:

- Summit's Northern service area was 18 percent lower than actual metered usage, and
- Summit's Southern service area was 37 percent lower than actual metered usage.

For Summit's Southern service area, the actual December 2012 weather was approximately 82 percent warmer than the normal weather the Company used in its estimates, and thus it would be expected that actual usage would be less than the normal estimated usage. However, the Company's actual usage for December 2012 was about 172 percent of the forecasted demand.



MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 10 of 18

Further, although a normal December has more HDD than February, the Company's demand forecast for December was lower than for February.

Staff recommends that the Company continue to review and refine the estimates it uses to forecast normal, warm, and cold weather requirements for both Summit's Northern and Southern service areas and review its December forecast for Summit's Southern service area.

5. Summit's Northern Service Area Storage

The demand for natural gas has traditionally been greater in the winter than summer, partly due to its use in residential and commercial heating.² Because the demand for natural gas is cyclical, it has been a common practice for LDCs to purchase gas during periods of lower demand and inject it into storage for later use, providing both a financial hedge against price changes and a physical hedge for winter season and peak day loads.³ Natural gas is generally injected into storage during the summer (non-heating season), which usually runs from April through October, and withdrawn from storage for use during the winter (heating season), usually from November to March⁴.

The Company has a Small Transportation Service (STS) contract with ANR Pipeline Company that provides the Company with up to a maximum storage quantity (MSQ) of 55,000 Dth⁵ of natural gas. This is a no-notice contract with respect to storage which allows the difference between actual flowing gas brought onto the pipeline and that used for Summit's Northern service area to be injected into or withdrawn from storage within prescribed limits.

The Company's Gas Supply Plan for 2012-2013 called for amassing sufficient storage inventory between April and October to meet 47 percent of its forecasted normal winter

² http://naturalgas.org/naturalgas/storage/

³ "Natural Gas and Energy Price Volatility", prepared for the Oak Ridge National Laboratory by the American Gas Foundation, October 2003, Chapter 1, pp. 15 and 23 and Chapter 4, pp.4-5; <u>http://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htmhttp://www.gasfoundation.org/ResearchStudies/volatility.htm</u>

⁴ <u>http://naturalgas.org/naturalgas/storage/</u>

⁵ 1 Dth (dekatherm) = 10 therms = 1 Million British Thermal Units (MMBTU) = approximately 1 thousand cubic feet (Mcf) of natural gas. Note: the exact conversion of units which represent the heating value of a fuel (e.g. Dth, therms, MMBTU) to units representing volumetric quantities (e.g. cubic feet) depends on the heating (caloric) content of the natural gas. The heating value can vary depending on the gas source. Energy Information Administration (EIA) reports that the average heat content in 2011 for residential, commercial and industrial sectors was approximately 1,023 BTU/Cubic Foot, which would correspond to 1 Dth = 0.977 Mcf.

demand of 117,160 Mcf. The Company's Gas Supply Plan would require storage to be 100 percent full by the end of October 2012. One of the Company's stated goals in filling storage is to capture summer market pricing for November – March delivery. Storage was filled to 85 percent of capacity at the end of October 2012, instead of the planned 100 percent. During September 2012, the Company did not purchase flowing gas but withdrew from storage to meet September demand. The Company's storage at the beginning of September 2012 was at 80 percent of its storage capacity and at the end of September 2012 was at 73 percent of its storage capacity.

In past Staff recommendations, Staff has expressed concerns regarding the Company's market timing approach to filling storage, as it might lead to a situation where the Company does not fill storage.

In response to Staff questions regarding the Company's decision not to fill storage prior to the 2012-2013 winter, the Company responded that it utilizes a combination of fixed price contracts and storage to meet its hedging goals. On October 5, 2012, the Company elected to purchase a fixed price contract at ** ______ ** for 39,000 Dth to be delivered November 1, 2012 – February 28, 2013 (325 Dth/day). The combined quantity of gas in storage and gas purchased under this fixed price contract resulted in an approximate total winter hedge of just over 70 percent of the Company's forecasted winter gas usage (Summit's hedging requirement) by the end of October, 2012, therefore the Company deemed it unnecessary to maximize its storage capacity.

In response to Staff questions regarding the Company's decision to withdraw gas from storage in September 2012 rather than purchase flowing gas for Summit's Northern service area, the Company responded that it does not generally complete a separate analysis for its decision to buy or withdraw gas from storage. Since the Company's STS contract allows for storage injections and withdrawals on a "no notice" basis, the Company states it tends to manage its storage inventories on an ongoing basis in conjunction with its gas requirements. As such, the Company deems the need to micromanage the procurement process unnecessary.

The Company's decision for not filling storage to the level described in its Gas Supply Plan is not reasonably supported. While the Company did meet its overall percentage hedging goal by the end of October 2012, it did so without consideration of its other stated goal of utilizing storage to capture summer market pricing for November through March delivery. It was imprudent not to fill storage prior to the 2012-2013 winter per the Company Gas Supply Plan. Staff evaluated whether the imprudent decision caused higher natural gas costs for customers by considering the following alternative scenarios:



MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 12 of 18

Scenario Matrix	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Additional Gas to fill storage purchased September 2012	V		V		V	
Additional Gas to fill storage purchased September & October 2012		\checkmark		\checkmark		\checkmark
Additional Gas Flowing on ANR STS 110863	100%	100%	87%	87%		
Additional Gas Flowing on ANR FTS 114767			13%	13%	100%	100%

For the above scenarios, Staff assumed that the Company would attempt to fill storage to nearly 100 percent (as indicated in the Company's Gas Supply Plan and response to DR 54) by the end of October 2012.

As background, the STS Service on ANR is a small customer transportation service that does not require payment of a fixed reservation fee, but does have a volumetric charge for the actual gas transported that is higher than FTS service. The FTS service referenced above is firm transportation service on ANR and has a more traditional rate structure of charging a fixed reservation fee for the amount of capacity reserved and a much smaller volumetric charge for the actual gas transported. The scenarios above are intended to quantify reasonable assumptions about gas flows had the Company followed its plan to fill storage. The results of these comparisons shows that, in all scenarios, the Company paid more for natural gas with its October fixed price contract to finalize its hedging for the 2012-2013 winter, rather than filling storage as planned.

For gas flowing on STS 110863, Staff assumed the cost of gas would be at IFERC + 0.005. IFERC is a monthly price often used as a price reference, especially for monthly, regularly purchased gas. It is reported by *Inside FERC Gas Market Report*, a Platt's publication. The price of gas purchases in June had no adder, but the actual price in July had an adder of -0.005 and August had an adder of +0.005. For gas flowing on FTS 114767, Staff assumed the cost of gas would be at GD REX Clarington, Ohio + 0.02 because this was the actual price paid by the Company for gas flowing on REX West in October 2012. GD REX represents a *Gas Daily* price reported by Platt's for various daily pricing points across the country. REX is a point on the Rockies Express Pipeline. Because Staff did not know which day(s) of the month(s) the Company would have purchased gas under this scenario analysis, Staff assumed the flows were in equal daily amounts.

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 13 of 18

The following additional charges were included as applicable:

- Pipeline commodity charge of \$0.9137/MMBTU for gas flowing on STS 110863 from ANR SW HS to Gallatin City Gate.
- Pipeline commodity charge of \$0.0109/MMBTU for gas flowing on FTS 114767 from REX West ANR Interconnect to Gallatin City Gate.
- Pipeline injection charge of \$ 0.0074/MMBTU for gas injected into storage (not applied to gas that is used rather than injected; charge shows up on STS 110863, but some volumes may be from FTS 114767).
- Additional pipeline commodity charge of \$0.9137/MMBTU for daily storage injections > than daily nominations on ANR STS 110863. In other words, the gas from the FTS contract that is allocated via invoices to ANR storage is assessed this charge, but the charge shows up on the STS Invoice.

A summary follows:

Scenario No.	Assumptions	October 31, 2012 Storage balance (%MSQ)	Savings	Savings per Customer
1	Gas purchased September 2012, 100% flow on ANR STS 110863	99.69%	\$4,346.49	\$2.78
2	Gas purchased September and October 2012, 100% flow on ANR STS 110863	99.65%	\$3,215.46	\$2.06
3	Gas purchased September 2012, 87% flow on ANR STS 110863, 13% flow on ANR FTS 114767	99.81%	\$4,804.50	\$3.08
4	Gas purchased September and October 2012, 87% flow on ANR STS 110863, 13% flow on ANR FTS 114767	99.83%	\$3,449.86	\$2.21
5	Gas purchased September 2012, 100% flow on ANR FTS 114767	99.91%	\$4,290.72	\$2.75
6	Gas purchased September and October 2012, 100% flow on ANR FTS 114767	99.87%	\$4,115.69	\$2.64

The Company paid between \$3,215.46 (Scenario 2) and \$4,804.50 (Scenario 3) more for natural gas in the winter than it would have paid for the same volume of natural gas had the Company purchased the natural gas in September and October and injected it into storage for winter use per its Gas Supply Plan to fill storage. This is a cost of \$2.06 (Scenario 2) and \$3.08 (Scenario 3) per customer.

It was imprudent not to fill storage prior to the 2012-2013 winter as called for in the Company's Gas Supply Plan. This imprudent decision caused a higher cost of gas for customers and thus Staff recommends that the cost of gas be reduced by \$3,215 for sales customers on the Company's Northern service area.

6. Gas Supply Plan

The Company's 2012-2013 Gas Supply Plan dated September 14, 2012 lacks specificity regarding plan implementation. For example, as discussed above, the Plan called for <u>filling</u> storage for the Gallatin system during April through October with a goal of "Capturing Summer Market Pricing," but parameters for implementation of this goal (e.g. storage injection goals for each month, target pricing) were not provided. The last page of the Plan titled "Implementation" lists "Triggering Events" as "Natural Gas Prices < Propane Prices" and "Favorable (relatively low) Natural Gas Prices." It is unclear whether these triggering events apply to purchase of gas for storage, acquiring fixed price contracts or purchase of gas on the spot market, or what would constitute "favorable (relatively low)" natural gas prices for storage injections, fixed price contracts or daily/spot market prices.

The Company's 2012-2013 Gas Supply Plan process does not document Company approval of its plan or of deviations from the plan. The 2012-2013 Gas Supply Plan for the Gallatin System called for filling storage to 100 percent of its capacity and that would have provided 47 percent of the normal winter forecasted demand. However, storage was actually only filled sufficiently to provide 40 percent of the normal winter forecasted demand by the end of October 2012. There is no documentation that the Company approved this deviation of storage providing 40 percent instead of 47 percent of normal requirements as identified in its Plan. Further, it is unclear what the Company's tolerance criteria are to define what represents a deviation from each planned goal.

Staff recommends the Company add the following documentation requirements to its Gas Supply Plan process for future ACAs:

• Document that the Plan was approved by the Company's Gas Supply Committee (e.g. a signature sheet and dates of approval or notation in Company Gas Supply Committee minutes);

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 15 of 18

- Document tolerance criteria for each planned goal (e.g. fill storage to $95\% \pm 2\%$);
- Document requests for and approval of deviations from the plan; and
- Document specific parameters for implementation of plan goals.

IV. HEDGING

Summit's winter hedging plans are primarily designed to achieve a reliable natural gas supply and to protect its customers against price spikes. The hedging plan for the Northern service area calls for the Company to fill storage as close to capacity as possible by November 1. Additionally, fixed price purchases are a part of the hedging plan for the Northern service area.

For the Southern service area, the hedging plan is to utilize fixed price purchases. There was no storage capacity contracted for the Southern service area.

Summit's maximum storage quantity (MSQ) represents about 47 percent of normal winter weather requirements for the Northern service area. For delivery during the winter periods, November 2012 - February 2013, the Company purchased fixed price volumes in October 2012. These fixed price volumes, combined with storage at the beginning of the winter season, represent 71 percent of customers' normal winter weather requirements for the Northern service area.

For the Southern service area, the Company purchased fixed price volumes in April 2012 for delivery in November 2012 through March 2013. The Company purchased additional fixed price volumes in October 2012 for delivery in December 2012 through February 2013. The fixed price volumes represent about 54 percent of normal winter weather requirements.

Conclusion

Despite Summit's overall hedging practice for this ACA's winter period (2012-2013), utilizing storage and fixed price purchase, Staff has the following comments/concerns about the Company's hedging practice for this ACA's winter period:

- 1. It is important for the Company to evaluate the expected level of the customers' natural gas requirements that are reasonably protected (hedged) under warmer than normal, normal, and colder than normal weather scenarios. Additionally, the Company should evaluate its hedging strategy in response to the changing market dynamics as to how much the existing hedging strategy actually benefits its customers while achieving the goal of stable price level.
- 2. A part of Summit's hedging goal is to capture the lowest price. For example, Summit purchases gas whenever it is less expensive compared to the current storage

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 16 of 18

> WACOG, and injecting the gas into storage. However, this market-timing approach in filling storage can lead to a situation where Summit waits too long for natural gas prices to go down until it perceives them to be favorable while running the risk of higher prices. Summit delayed in filling storage for the winter period and did not fill the storage to 100 percent of its capacity as called for by its hedging plan. This eventually resulted in additional gas costs to its customers. Summit did not provide a reasonable explanation about the decision to not fill the storage. (See above III. *C.5.* Summit's Northern service area Storage and 6. Gas Supply Plan for details.)

Hedging Recommendations

Staff recommends, for the 2013-2014 ACA periods and beyond, that the Company:

- (a) Establish and maintain a current and consistent hedging policy with stated objectives based on month-specific normal weather requirements while also considering the impacts of warmer and colder than normal weather scenarios.
- (b) Consider a combination of various alternatives such as storage withdrawals, call options, and other fixed price purchases for effective hedging during the winter months.
- (c) Continue to monitor the market movements diligently and employ disciplined (placement of hedges triggered by pre-determined time) as well as discretionary (placement of hedges triggered by careful market evaluation) approaches in its hedging practices.
- (d) Document its reasoning for executing any hedging transactions or decisions, whether by means of storage, fixed price contracting or other financial hedging instruments.

V. RECOMMENDATIONS

The Staff recommends that Summit:

1. Adjust the balances in its next ACA filing to reflect the Staff recommended ending (over)/under recovery ACA balances per the following tables:

MO PSC Case No. GR-2014-0096 Official Case File Memorandum October 2, 2014 Page 17 of 18

Northern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Commission Approved Adjustments prior to 2012-2013 ACA	Staff Adjustments For 2012-2013 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8/31/12	(\$74,709)	\$0	\$0	(\$74,709)
Cost of Gas/Storage	\$682,493	\$0	(\$3,215)(A)	\$679,278
Cost of Transportation	\$135,686	\$0	\$0	\$135,686
Revenues – PGA billed Revenues – ** ** billed	(\$716,785) (\$23,406)	\$0 \$0	\$0 (\$5,118)(B)	(\$716,785) (\$28,524)
ACA Approach for Interest Calculation	(\$75)	\$0	\$0	(\$75)
Total ACA Balance 8/31/13	\$3,204	\$0	(\$8,333)	(\$5,129)

(A) Storage adjustment

(B) ** ____ ** Billed Gas Supply Charge adjustment

Southern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Commission Approved Adjustments prior to 2012-2013 ACA	Staff Adjustments For 2012-2013 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8/31/12	(\$21,679)	\$0	\$0	(\$21,679)
Cost of Gas/Storage	\$666,473	\$0	\$0	\$666,473
Cost of Transportation	\$126,058	\$0	\$0	\$126,058
Revenues – PGA billed	(\$748,256)	\$0	\$0	(\$748,256)
ACA Approach for Interest Calculation	\$0	\$0	\$0	\$0
ACA Cost Correction	(\$2,952)	\$0	\$2,952(A)	\$0
Total ACA Balance 8/31/13	\$19,644	\$0	\$2,952	\$22,596

(A) Correction of gas supply and transportation costs.



- 2. Respond to Staff's recommendations in Section II Billed Revenues and Actual Gas Costs.
- 3. Respond to the concerns expressed by Staff in the Reliability Analysis and Gas Supply Planning section (Section III) related to reserve margins for the Summit's Northern and Southern service areas Natural Gas Supply Planning and Decisions, including Storage.
- 4. Respond to Staff's recommendations in Section IV Hedging.
- 5. Respond to recommendations and concerns included herein within 60 days.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc.'s Purchased Gas Adjustment)

File No. GR-2014-0096

AFFIDAVIT OF KWANG Y. CHOE, PHD

STATE OF MISSOURI)) SS. COUNTY OF COLE)

Kwang Y. Choe, PhD, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Recommendation in memorandum form, to be presented in the above case; that the information in the Staff Recommendation was developed by him; that he has knowledge of the matters set forth in such Staff Recommendation; and that such matters are true and correct to the best of his knowledge and belief.

Kwang Y. Choe, PhD

Subscribed and sworn to before me this

2nd day of October, 2014.

Ahrenellankin Notary Public '

D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: December 12, 2016 Commission Number: 12412070

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of) Missouri, Inc.'s Purchased Gas Adjustment)

File No. GR-2014-0096

AFFIDAVIT OF PHIL LOCK

STATE OF MISSOURI)) SS. COUNTY OF COLE)

Phil Lock, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Recommendation in memorandum form, to be presented in the above case; that the information in the Staff Recommendation was developed by him; that he has knowledge of the matters set forth in such Staff Recommendation; and that such matters are true and correct to the best of his knowledge and belief.

Subscribed and sworn to before me this

day of October, 2014.

D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: December 12, 2016 Commission Number: 12412070

Ausiellankin Notary Public -

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of) Missouri, Inc.'s Purchased Gas Adjustment)

File No. GR-2014-0096

AFFIDAVIT OF KATHLEEN A. MCNELIS

STATE OF MISSOURI)) ss. COUNTY OF COLE)

Kathleen A. McNelis, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Recommendation in memorandum form, to be presented in the above case; that the information in the Staff Recommendation was developed by her; that she has knowledge of the matters set forth in such Staff Recommendation; and that such matters are true and correct to the best of her knowledge and belief.

in A. Minter

day of October, 2014.

Kathleen A. McNelis

Subscribed and sworn to before me this

D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: December 12, 2016 Commission Number: 12412070

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