BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc.'s Changes to Company's Purchased Gas Adjustment (PGA) Clause	)))	**Case No. GR-2018-0106**

STAFF RECOMMENDATION REGARDING SUMMIT NATURAL GAS OF MISSOURI, INC.'S 2016-2017 ACTUAL COST ADJUSTMENT FILING

COMES NOW the Staff of the Missouri Public Service Commission in the above-captioned matter and files its Actual Cost Adjustment ("ACA") Recommendation in this case concerning Summit Natural Gas of Missouri, Inc.'s ("Summit" or "Company") 2016-2017 ACA filing as set forth in the accompanying Staff Recommendation Memorandum (Appendix A), and further states as follows:

1. Summit filed its ACA for the 2016-2017 ACA period in this case on October 25, 2017.[1] This filing contained Summit's ACA account balance calculation.

2. The Procurement Analysis Department ("Staff") has reviewed Summit's filing and submits its recommendation as further explained in the accompanying Staff Recommendation Memorandum, marked Appendix A (which is incorporated herein by reference). Staff's analysis consisted of an examination of Summit's gas purchasing practices to evaluate the prudence of the Company's purchasing decisions for this ACA period; a reliability analysis, including a review of estimated peak day requirements and the capacity levels needed to meet those requirements and a review of supply plans for various weather conditions; and a hedging review to evaluate the reasonableness of the Company's hedging practices for this ACA period. Staff's review

[1] Summit filed substitute tariff sheets one day later, on October 26, 2017.

also included a comparison of the Company's billed revenues and its actual gas costs to determine whether there exists an over-recovery or under-recovery of the ACA balances. An over-recovery by the Company is shown as a negative ACA balance that must be returned to customers; an under-recovery is shown as a positive ACA balance that must be collected from customers.

3. Based on its review, as discussed in detail in the accompanying Staff Recommendation Memorandum, Staff recommends the Commission issue an order requiring Summit to make the adjustments and reflect the Staff recommended ending over- or under-recovery balances for this ACA period as shown in the tables in the "Recommendations" section of the Staff Recommendation Memorandum.

4. In addition to the adjustments referenced above, based on its review Staff has certain concerns and recommendations as reflected in the accompanying Staff Recommendation Memorandum. Staff recommends the Commission order Summit to respond to these recommendations and concerns within forty-five (45) days.

WHEREFORE, for the reasons stated above and discussed in detail in the accompanying Staff Recommendation Memorandum, Staff recommends the Commission issue an order directing Summit to respond within 45 days to Staff's recommendations and concerns included in the Staff Recommendation Memorandum, and to make the adjustments and reflect the Staff recommended ending over- or under-recovery balances for this ACA period as shown in the tables in the "Recommendations" section of the Staff Recommendation Memorandum.

Respectfully submitted,

/s/ Jeffrey A. Keevil
Jeffrey A. Keevil
Missouri Bar No. 33825
Attorney for the Staff of the
Missouri Public Service
Commission
P. O. Box 360
Jefferson City, MO 65102
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronic mail to counsel of record this 17th day of December, 2018.

/s/ Jeffrey A. Keevil

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. GR-2018-0106, Summit Natural Gas of Missouri, Inc.

FROM: Kwang Y. Choe, PhD, Regulatory Economist – Procurement Analysis
Jacob R. Robinett, Utility Engineering Specialist III – Procurement Analysis
Catherine F. Lucia, Utility Regulatory Auditor IV – Procurement Analysis

/s/ David M. Sommerer 12/17/18
Project Coordinator / Date

/s/ Jeffrey A. Keevil 12/17/18
Staff Counsel's Office / Date

/s/ Keenan B. Patterson, PE 12/17/18
Utility Regulatory Engineer II / Date

SUBJECT: Staff Recommendation in Case No. GR-2018-0106, Summit Natural Gas of Missouri, Inc. 2016-2017 Actual Cost Adjustment Filing

DATE: December 17, 2018

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, Inc. ("SNG", "Summit" or "Company") and for Summit to adopt MGU's tariffs. On February 23, 2012, Summit filed tariff sheets to adopt SMNG's tariffs.

On October 25, 2017, and as corrected on October 26, 2017, Summit (successor in interest to MGU) filed Case No. GR-2018-0106 concerning its Actual Cost Adjustment (ACA) for the 2016-2017 annual period for rates to become effective November 8, 2017. The Procurement Analysis Department ("Staff") of the Missouri Public Service Commission has reviewed the Company's ACA filing for the **former Southern Missouri Natural Gas (SMNG) service area** (Rogersville and Branson Division), **Northern service area** (Gallatin Division), and **Southern service area** (Warsaw and Lake of the Ozarks Division). A comparison of billed revenue recovery with actual gas costs will yield either an over-recovery or under-recovery of the ACA balance. An over-recovery by the Company is shown as a negative ACA balance that must be returned to customers; an under-recovery is shown as a positive ACA balance that must be collected from customers.

** Denotes Confidential Information **

C

Appendix A

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 no adjustments to the Company's **former SMNG service area** (Rogersville and Branson Division) filed 2016-2017 (over)/under-recovery ACA balances:

SMNG Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(286,331)	$0	$(286,331)
Cost of Gas/Storage	$3,607,798	$0	$3,607,798
Cost of Transportation	$2,313,347	$0	$2,313,347
Revenues - PGA billed	$(5,160,707)	$0	$(5,160,707)
ACA Approach for Interest Calculation	$(103)	$0	$(103)
Cash Outs	$(141,606)	$0	$(141,606)
Total ACA Balance 8-31-17	$(332,398)	$0	$(332,398)

Based on its review, Staff recommends no adjustments to the Company's filed 2016-2017 (over)/under-recovery ACA balances for **Summit's Northern service area** (Gallatin Division):

Northern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(12,821)	$0	$(12,821)
Cost of Gas/Storage	$509,364	$0	$509,364
Cost of Transportation	$146,433	$0	$146,433
Revenues - PGA billed	$(517,158)	$0	$(517,158)
ACA Approach for Interest Calculation	$0	$0	$0
Cash Outs	$(48,139)	$0	$(48,139)
Total ACA Balance 8-31-17	$77,679	$0	$(77,679)

Based on its review, Staff recommends the following adjustments to the Company's filed 2016-2017 (over)/under-recovery ACA balances for **Summit's Southern service area** (Warsaw and Lake of the Ozarks Division):

Southern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustment from 2015-2016	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(170,127)	$(50)	$0	$(170,177)
Cost of Gas/Storage	$1,207,757	$0	$0	$1,207,757
Cost of Transportation	$551,229	$0	$0	$551,229
Revenues – PGA billed	$(1,669,126)	$0	$0	$(1,669,126)
ACA Approach for Interest Calculation	$(1,657)	$0	$0	$(1,657)
Cash Outs	$(12,453)	$0	$(49)	$(12,502)
Total ACA Balance 8-31-17	$(94,377)	$(50)	$(49)	$(94,476)

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 45 days.

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 2016-2017 ACA, Summit provided natural gas service to customers in the south and west-central portion of the state including the counties of Benton, Camden, Greene, Miller, Morgan and Pettis, also known as the "Southern service area." Summit served an average of 4,590 sales customers in the Southern service area. Southern Star Central Gas Pipeline (SSCGP) serves all customers in Summit's Southern service area. Summit also provides natural gas service to customers in the Northwest Missouri counties of Caldwell, Daviess and Harrison, also known as the "Northern service area." Summit served an average of 1,614 sales customers in the Northern service area. ANR Pipeline Company (ANR) serves all customers in Summit's Northern service area.

During the 2016-2017 ACA, Summit also provided natural gas service to customers in the south and south-central portion of the state including communities in Greene, Webster, Wright, Howell, Texas, Douglas, Laclede, Stone and Taney counties, also known as the "SMNG service area." Summit served an average of 12,133 sales customers for the combined Branson and Rogersville systems. Southern Star Central Gas Pipeline (SSCGP) serves all customers in Summit's former SMNG service territory.

II. BILLED REVENUE AND ACTUAL GAS COST

<u>Gas Procurement Practices</u>

Staff reviewed Summit's purchasing practices during this period and recommends no adjustments based upon that review.

However, during Staff's review of the "Reconciliation of (Over)/Under Collection" for Warsaw/Lake of the Ozarks as provided in the Company's response to Data Request No. 0001 it was noted by Staff that the Beginning Balance was \$(170,127.48) and should have been \$(170,177.48). Therefore, Staff recommends an adjustment in the amount of \$(50) which will increase the Beginning Balance.

Also, during Staff's comparison of the cash outs calculations for Warsaw/Lake of the Ozarks in the amount of $(12,501.94) as provided in the Company's response to Data Request No. 0036 to the total cash outs in the amount of $(12,452.70) shown in the "Reconciliation of (Over)/Under Collection" as provided in the Company's response to Data Request No. 0001 a discrepancy of $(49.24) was found. Therefore, Staff recommends an adjustment in the amount of $(49.24) which will increase total cash outs to $(12,501.94). The adjustment increases the Warsaw/Lake of the Ozarks over-collection by $(49.24).

III. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

As a gas corporation providing natural gas service to Missouri customers, the Company is responsible for conducting reasonable long-range supply planning and the decisions resulting from that planning. One purpose of the ACA process is to examine the reliability of the Local Distribution Company's (LDC) gas supply, transportation, and storage capabilities. For this analysis, Staff reviews 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.

Staff's review for Summit's service areas produced the following comments and concerns:

Storage Planning

The Company's storage did not allow for the flexibility of warmer weather in the fall. For example, the storage actuals for the MGU North service area (served by ANR) were at 93.6% and 98.9% capacity for the end of September and October 2016 respectively. Staff is concerned that if warmer weather is experienced in October or the first half of November that the Company may not have the flexibility it needs to put any excess gas into storage due to warmer weather. Staff recommends the Company review its ending September and October planned balances to accommodate a potential warmer fall or winter.

Reserve Margins

The reserve margin for the SMNG Branson and Rogersville areas are 126% and 4.1% respectively when considering the upper 95% confidence interval. The reserve margin for the MGU North region is 12.7%, and the reserve margin for the MGU South region is 84.9% when considering the upper 95% confidence interval.

The Branson and MGU South areas are relatively new and experiencing rapid, variable growth. Even so, they are small systems. Pipelines do not readily accommodate the levels of capacity or capacity adjustment that a small, growing system might prefer. Instead, pipelines will offer a block of capacity in keeping with their overall operations, customer demands and tariff. Staff finds that the high reserve margins in the Branson and MGU South areas are reasonable in light of these circumstances. If growth in these areas begins to slow in the next few years, Summit may seek to more closely match pipeline capacity to peak demand through such means as renegotiating its transportation contract or long-term capacity release. Staff encourages the Company to continue to monitor its pipeline contracts and maintain an appropriate reserve margin for each service area.

Staff notes that the company has begun to install a Liquified Natural Gas plant in north Lebanon. This is intended to help with the distribution system reliability. This installation does not have an effect on Staff's 2016-2017 ACA review.

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 establishes known prices for ** 60% ** of normal winter (November – March) weather requirements for each of the Company's three service areas. The Company's Northern service area calls for the Company to fill storage as close to its maximum capacity as possible by November 1, the beginning of the winter heating season. Additionally, fixed price purchases are a part of the hedging plan for the Northern service area.

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

For the Company's former SMNG service area, the hedging plan is also to utilize fixed price purchases for this ACA period. The Staff notes that Summit's storage associated with the SMNG service area expired April 2016.

Summit's maximum storage quantity (MSQ) for the Northern service area represents about ** 38% ** of normal winter (November – March) weather requirements for the service area. Summit's actual storage injection by November 1, 2016 was about 99% of MSQ. Summit also purchased fixed price volumes in February 2016 for delivery during the periods, November 2016 - March 2017. These fixed price volumes, which represent about ** 25% ** of normal winter weather requirements, combined with actual storage at the beginning of the winter season, represent about ** 63% ** of normal winter weather requirements for the Northern service area.

For the Southern service area, Summit purchased fixed price volumes in February 2016 for delivery in the periods, November 2016 through March 2017. Summit purchased additional fixed price volumes in June and September 2016 for delivery in the same periods, November 2016 through March 2017. The fixed price volumes represent about ** 60% ** of normal winter weather requirements for the Southern service area.

For the former SMNG service area, Summit purchased fixed price volumes in February 2016 and also in June and September 2016 for delivery during the winter periods, November 2016 through March 2017. These fixed price volumes represent about ** 60% ** of normal winter weather requirements for the former SMNG service area. In light of the April 2016 expiration of the SMNG area storage contract, the Company should continue to review the effects on hedging from this expiration.

Hedging Conclusion

Staff has the following comments 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.
2) 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.
3) A part of Summit's hedging goals is to capture the lowest price. However, this market-timing approach 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.
4) A part of Summit's hedging strategy utilizing storage is typically based on its plan of filling storage to its MSQ by November 1 and use of the entire MSQ by the end of March. However, when the Company does not fill storage to MSQ and finishes the last month of the winter heating season (March) with a portion of MSQ left in storage its hedging plan utilizing storage could potentially overestimate an actual hedging outcome.

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Hedging Recommendations

Staff recommends, for the 2017-2018 ACA period 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) Establish what is a realistic amount of MSQ that the Company plans to inject into storage by November 1 and to withdraw by March 31. Thus, determine a realistic amount of storage that can be utilized toward hedging and calculate the hedging percent utilizing storage and the overall hedging percent accordingly.

(d) Continue to monitor the market movements diligently and with regard to timing of hedge placements employ disciplined (time-driven) as well as discretionary (price-driven) approaches in its hedging practices.

(e) Continue to 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 the Commission issue an order requiring Summit to:

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

SMNG Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(286,225)	$0	$(286,225)
Cost of Gas/Storage	$3,607,798	$0	$3,607,798
Cost of Transportation	2,313,347	$0	$2,313,347
Revenues - PGA billed	$(5,160,707)	$0	$(5,160,707)
ACA Approach for Interest Calculation	$(103)	$0	$(103)
Cash Outs	$(141,606)	$0	$(141,606)
Total ACA Balance 8-31-17	$332,504	$0	$332,504

Northern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(12,821)	$0	$(12,821)
Cost of Gas/Storage	$509,364	$0	$509,364
Cost of Transportation	$146,433	$0	$146,433
Revenues - PGA billed	$(517,158)	$0	$(517,158)
ACA Approach for Interest Calculation	$0	$0	$0
Cash Outs	$(48,139)	$0	$(48,139)
Total ACA Balance 8-31-17	$77,679	$0	$77,679

(Warsaw-Lake Ozarks) Southern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustment from 2015-2016	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(170,127)	A $(50)	$0	$(170,177)
Cost of Gas/Storage	$1,207,757	$0	$0	$1,207,757
Cost of Transportation	$551,229	$0	$0	$551,229
Revenues – PGA billed	$(1,669,126)	$0	$0	$(1,669,126)
ACA Approach for Interest Calculation	$(1,657)	$0	$0	$(1,657)
Cash Outs	$(12,453)	$0	B $(49)	$(12,502)
Total ACA Balance 8-31-17	$(94,377)	$(50)	$(49)	$(94,476)

(A) Adjustment to Ending ACA Balance from GR-2016-0091 that was not incorporated into the Prior ACA Balance 8-31-16 by the Company which increases the Prior ACA Balance 8-31-16 by the amount of $(50).

(B) Adjustment to Cash Outs in the amount of $(49.24) which will increase the Ending Cash Outs Balance to $(12,502) and increase the Ending Total ACA Balance 8-31-17 by the amount of $(49.24).

2) Respond to Staff's concerns/recommendations in Section II – Billed Revenue and Actual Gas Cost.

3) Respond to the concerns/recommendations expressed by Staff in Section III - Reliability Analysis and Gas Supply Planning.

4) Respond to Staff's recommendations in Section IV - Hedging.

5) Respond to the recommendations and concerns included herein within 45 days.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF KWANG Y. CHOE, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Kwang Y. Choe

KWANG Y. CHOE, PhD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 13th day of December, 2018.

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

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF JACOB R. ROBINETT

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

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

Further the Affiant sayeth not.

Jacob R. Robinett
JACOB R. ROBINETT

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 13th day of December, 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
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D. Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF CATHERINE F. LUCIA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Catherine F Lucia

CATHERINE F. LUCIA

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 13th day of December, 2018.

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D Suzie Mankin

Notary Public

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. GR-2018-0106, Summit Natural Gas of Missouri, Inc.

FROM: Kwang Y. Choe, PhD, Regulatory Economist – Procurement Analysis
Jacob R. Robinett, Utility Engineering Specialist III – Procurement Analysis
Catherine F. Lucia, Utility Regulatory Auditor IV – Procurement Analysis

<u>/s/ David M. Sommerer 12/17/18</u>
Project Coordinator / Date

<u>/s/ Jeffrey A. Keevil 12/17/18</u>
Staff Counsel's Office / Date

<u>/s/ Keenan B. Patterson, PE 12/17/18</u>
Utility Regulatory Engineer II / Date

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Total ACA Balance 8-31-17	$77,679	$0	$(77,679)

Based on its review, Staff recommends the following adjustments to the Company's filed 2016-2017 (over)/under-recovery ACA balances for **Summit's Southern service area** (Warsaw and Lake of the Ozarks Division):

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V. Recommendations

I. OVERVIEW

During the 2016-2017 ACA, Summit provided natural gas service to customers in the south and west-central portion of the state including the counties of Benton, Camden, Greene, Miller, Morgan and Pettis, also known as the "Southern service area." Summit served an average of 4,590 sales customers in the Southern service area. Southern Star Central Gas Pipeline (SSCGP) serves all customers in Summit's Southern service area. Summit also provides natural gas service to customers in the Northwest Missouri counties of Caldwell, Daviess and Harrison, also known as the "Northern service area." Summit served an average of 1,614 sales customers in the Northern service area. ANR Pipeline Company (ANR) serves all customers in Summit's Northern service area.

During the 2016-2017 ACA, Summit also provided natural gas service to customers in the south and south-central portion of the state including communities in Greene, Webster, Wright, Howell, Texas, Douglas, Laclede, Stone and Taney counties, also known as the "SMNG service area." Summit served an average of 12,133 sales customers for the combined Branson and Rogersville systems. Southern Star Central Gas Pipeline (SSCGP) serves all customers in Summit's former SMNG service territory.

II. BILLED REVENUE AND ACTUAL GAS COST

<u>Gas Procurement Practices</u>

Staff reviewed Summit's purchasing practices during this period and recommends no adjustments based upon that review.

However, during Staff's review of the "Reconciliation of (Over)/Under Collection" for Warsaw/Lake of the Ozarks as provided in the Company's response to Data Request No. 0001 it was noted by Staff that the Beginning Balance was $(170,127.48) and should have been $(170,177.48). Therefore, Staff recommends an adjustment in the amount of $(50) which will increase the Beginning Balance.

Also, during Staff's comparison of the cash outs calculations for Warsaw/Lake of the Ozarks in the amount of $(12,501.94) as provided in the Company's response to Data Request No. 0036 to the total cash outs in the amount of $(12,452.70) shown in the "Reconciliation of (Over)/Under Collection" as provided in the Company's response to Data Request No. 0001 a discrepancy of $(49.24) was found. Therefore, Staff recommends an adjustment in the amount of $(49.24) which will increase total cash outs to $(12,501.94). The adjustment increases the Warsaw/Lake of the Ozarks over-collection by $(49.24).

III. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

As a gas corporation providing natural gas service to Missouri customers, the Company is responsible for conducting reasonable long-range supply planning and the decisions resulting from that planning. One purpose of the ACA process is to examine the reliability of the Local Distribution Company's (LDC) gas supply, transportation, and storage capabilities. For this analysis, Staff reviews 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.

Staff's review for Summit's service areas produced the following comments and concerns:

Storage Planning

The Company's storage did not allow for the flexibility of warmer weather in the fall. For example, the storage actuals for the MGU North service area (served by ANR) were at 93.6% and 98.9% capacity for the end of September and October 2016 respectively. Staff is concerned that if warmer weather is experienced in October or the first half of November that the Company may not have the flexibility it needs to put any excess gas into storage due to warmer weather. Staff recommends the Company review its ending September and October planned balances to accommodate a potential warmer fall or winter.

Reserve Margins

The reserve margin for the SMNG Branson and Rogersville areas are 126% and 4.1% respectively when considering the upper 95% confidence interval. The reserve margin for the MGU North region is 12.7%, and the reserve margin for the MGU South region is 84.9% when considering the upper 95% confidence interval.

The Branson and MGU South areas are relatively new and experiencing rapid, variable growth. Even so, they are small systems. Pipelines do not readily accommodate the levels of capacity or capacity adjustment that a small, growing system might prefer. Instead, pipelines will offer a block of capacity in keeping with their overall operations, customer demands and tariff. Staff finds that the high reserve margins in the Branson and MGU South areas are reasonable in light of these circumstances. If growth in these areas begins to slow in the next few years, Summit may seek to more closely match pipeline capacity to peak demand through such means as renegotiating its transportation contract or long-term capacity release. Staff encourages the Company to continue to monitor its pipeline contracts and maintain an appropriate reserve margin for each service area.

Staff notes that the company has begun to install a Liquified Natural Gas plant in north Lebanon. This is intended to help with the distribution system reliability. This installation does not have an effect on Staff's 2016-2017 ACA review.

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 establishes known prices for ** ___ ** of normal winter (November – March) weather requirements for each of the Company's three service areas. The Company's Northern service area calls for the Company to fill storage as close to its maximum capacity as possible by November 1, the beginning of the winter heating season. Additionally, fixed price purchases are a part of the hedging plan for the Northern service area.

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

For the Company's former SMNG service area, the hedging plan is also to utilize fixed price purchases for this ACA period. The Staff notes that Summit's storage associated with the SMNG service area expired April 2016.

Summit's maximum storage quantity (MSQ) for the Northern service area represents about ** ___ ** of normal winter (November – March) weather requirements for the service area. Summit's actual storage injection by November 1, 2016 was about 99% of MSQ. Summit also purchased fixed price volumes in February 2016 for delivery during the periods, November 2016 - March 2017. These fixed price volumes, which represent about ** ___ ** of normal winter weather requirements, combined with actual storage at the beginning of the winter season, represent about ** __ ** of normal winter weather requirements for the Northern service area.

For the Southern service area, Summit purchased fixed price volumes in February 2016 for delivery in the periods, November 2016 through March 2017. Summit purchased additional fixed price volumes in June and September 2016 for delivery in the same periods, November 2016 through March 2017. The fixed price volumes represent about ** __ ** of normal winter weather requirements for the Southern service area.

For the former SMNG service area, Summit purchased fixed price volumes in February 2016 and also in June and September 2016 for delivery during the winter periods, November 2016 through March 2017. These fixed price volumes represent about ** __ ** of normal winter weather requirements for the former SMNG service area. In light of the April 2016 expiration of the SMNG area storage contract, the Company should continue to review the effects on hedging from this expiration.

Hedging Conclusion

Staff has the following comments 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.
2) 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.
3) A part of Summit's hedging goals is to capture the lowest price. However, this market-timing approach 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.
4) A part of Summit's hedging strategy utilizing storage is typically based on its plan of filling storage to its MSQ by November 1 and use of the entire MSQ by the end of March. However, when the Company does not fill storage to MSQ and finishes the last month of the winter heating season (March) with a portion of MSQ left in storage its hedging plan utilizing storage could potentially overestimate an actual hedging outcome.

Hedging Recommendations

Staff recommends, for the 2017-2018 ACA period 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) Establish what is a realistic amount of MSQ that the Company plans to inject into storage by November 1 and to withdraw by March 31. Thus, determine a realistic amount of storage that can be utilized toward hedging and calculate the hedging percent utilizing storage and the overall hedging percent accordingly.

(d) Continue to monitor the market movements diligently and with regard to timing of hedge placements employ disciplined (time-driven) as well as discretionary (price-driven) approaches in its hedging practices.

(e) Continue to 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 the Commission issue an order requiring Summit to:

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

SMNG Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(286,225)	$0	$(286,225)
Cost of Gas/Storage	$3,607,798	$0	$3,607,798
Cost of Transportation	2,313,347	$0	$2,313,347
Revenues - PGA billed	$(5,160,707)	$0	$(5,160,707)
ACA Approach for Interest Calculation	$(103)	$0	$(103)
Cash Outs	$(141,606)	$0	$(141,606)
Total ACA Balance 8-31-17	$332,504	$0	$332,504

Northern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(12,821)	$0	$(12,821)
Cost of Gas/Storage	$509,364	$0	$509,364
Cost of Transportation	$146,433	$0	$146,433
Revenues - PGA billed	$(517,158)	$0	$(517,158)
ACA Approach for Interest Calculation	$0	$0	$0
Cash Outs	$(48,139)	$0	$(48,139)
Total ACA Balance 8-31-17	$77,679	$0	$77,679

(Warsaw-Lake Ozarks) Southern Service Area Description (+) Under-recovery (-) Over-recovery	Ending Balances Per Filing	Staff Adjustment from 2015-2016	Staff Adjustments for 2016-2017 ACA	Staff Recommended Ending Balances
Prior ACA Balance 8-31-16	$(170,127)	A $(50)	$0	$(170,177)
Cost of Gas/Storage	$1,207,757	$0	$0	$1,207,757
Cost of Transportation	$551,229	$0	$0	$551,229
Revenues – PGA billed	$(1,669,126)	$0	$0	$(1,669,126)
ACA Approach for Interest Calculation	$(1,657)	$0	$0	$(1,657)
Cash Outs	$(12,453)	$0	B $(49)	$(12,502)
Total ACA Balance 8-31-17	$(94,377)	$(50)	$(49)	$(94,476)

(A) Adjustment to Ending ACA Balance from GR-2016-0091 that was not incorporated into the Prior ACA Balance 8-31-16 by the Company which increases the Prior ACA Balance 8-31-16 by the amount of $(50).

(B) Adjustment to Cash Outs in the amount of $(49.24) which will increase the Ending Cash Outs Balance to $(12,502) and increase the Ending Total ACA Balance 8-31-17 by the amount of $(49.24).

2) Respond to Staff’s concerns/recommendations in Section II – Billed Revenue and Actual Gas Cost.

3) Respond to the concerns/recommendations expressed by Staff in Section III - Reliability Analysis and Gas Supply Planning.

4) Respond to Staff’s recommendations in Section IV - Hedging.

5) Respond to the recommendations and concerns included herein within 45 days.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF KWANG Y. CHOE, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Kwang Y. Choe

KWANG Y. CHOE, PhD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 13th day of December, 2018.

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

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF JACOB R. ROBINETT

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

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

Further the Affiant sayeth not.

Jacob R. Robinett

JACOB R. ROBINETT

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 13th day of December, 2018.

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

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri, Inc., Changes to Company's Purchase Gas Adjustment (PGA) Clause	)))	Case No. GR-2018-0106

AFFIDAVIT OF CATHERINE F. LUCIA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Catherine F Lucia

CATHERINE F. LUCIA

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 13th day of December, 2018.

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

D Suzie Mankin

Notary Public