**MEMORANDUM**

TO: Missouri Public Service Commission Official Case File, Case No. GR-2006-0291, Missouri Gas Energy, a Division of Southern Union Company

FROM: David M. Sommerer, Manager - Procurement Analysis Department
Anne Allee, Regulatory Auditor - Procurement Analysis Department
Lesa A. Jenkins, PE, Regulatory Engineer - Procurement Analysis Department
Kwang Choe, PhD, Regulatory Economist - Procurement Analysis Department

| /s/ David M. Sommerer 12/27/07 | /s/ Lera L. Shemwell 12/27/07 |
|---|---|
| Project Coordinator / Date | General Counsel's Office / Date |

SUBJECT: Staff's Recommendation in Missouri Gas Energy's 2005-2006 Actual Cost Adjustment Filing

DATE: December 27, 2007

## I. BACKGROUND

The Procurement Analysis Department (Staff) has reviewed the Missouri Gas Energy (MGE or Company) 2005-2006 Actual Cost Adjustment (ACA) filing. This filing was made on October 27, 2006, and was docketed as Case No. GR-2006-0291. The filing contains the Company's calculations of the ACA and Refund account balances. The 2005-2006 ACA filing rates became effective on November 10, 2006.

MGE served as many as 503,000 customers in the Kansas City, Joplin and St. Joseph areas during the 2005-2006 ACA (MGE Demand/Capacity Analysis, January 2006). MGE transports its gas supply over Panhandle Eastern Pipe Line (PEPL), Southern Star Central Gas Pipeline (SSC), Kinder Morgan Interstate Gas Transmission (KM) and Enbridge Pipeline commonly known as Kansas Pipeline Company (KPC). Recently, Enbridge has agreed to sell its interstate pipeline to Quest Midstream Partners, L.P.

Staff reviewed and evaluated MGE's billed revenues and actual gas costs for the period of July 1, 2005, to June 30, 2006. The Staff also reviewed MGE's gas purchasing practices to determine the prudence of the Company's purchasing and operating decisions. Staff conducted a reliability analysis of estimated peak day requirements and the capacity levels needed to meet those requirements; peak day reserve margin and the reasons for this reserve margin; and a review of normal, warm and cold weather requirements. Staff also reviewed MGE's hedging for the period to determine the reasonableness of the Company's hedging plans.

## ** II. BUY/SELL TRANSACTIONS **

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## III. TRANSPORTATION AND STORAGE DISCOUNTS

In Case No. GM-2003-0238, the Commission authorized Southern Union Company's (SUC) acquisition of Panhandle Eastern Pipe Line Company (PEPL). In the Stipulation and Agreement in Case No. GM-2003-0238, MGE agreed to maintain, in its PGA and ACA rates, at least the same percentage discount level of transportation and storage rates it was receiving on PEPL and SSC. The discount provision applies as long as MGE is an affiliate of PEPL. In its 2005/2006 ACA filing, MGE included a greater amount of transportation and storage costs than it had agreed. Therefore, the Staff proposes to reduce gas costs by $414,650.51 in order to accurately reflect the level of discounts as agreed to in case GM-2003-0238. MGE has indicated the failure to reduce gas costs was an oversight and has adjusted its ACA balance for the 2006/2007 ACA period by $414,650.51 to reflect the discounted transportation and storage rates as agreed in Case No. GM-2003-0238. The Staff will monitor this issue in its subsequent ACA reviews to ensure the Company is accurately reflecting its discounts.

## IV. CAPACITY RELEASE AND OFF-SYSTEM SALES REVENUES

MGE is entitled to retain a percentage of revenues generated by capacity release and off-system sales. In its ACA review, the Staff found that MGE made an error in calculating the portion of revenue it was allowed to retain from capacity release and off-system sales transactions. Therefore, the Staff proposes to adjust the ACA balance by $187,209.13 to correct MGE's portion of capacity release and off-system sales revenues.

## V. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING IMPROVEMENT RECOMMENDATIONS

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.

The primary service areas to which MGE distributes natural gas are Kansas City, St. Joseph and Joplin. MGE has approximately 395,600 firm customers in the Kansas City area, 29,200 in St. Joseph, and 78,500 in Joplin, for a total of 503,300 firm customers (MGE Demand/Capacity Analysis, January 2006). To assure that each area has sufficient transportation capacity, MGE must consider the capacity available for each area. In both its Demand/Capacity Analysis dated October 2004 and its Demand/Capacity Analysis dated January 2006, MGE plans its capacity by service area. Prior to that, MGE's peak day analyses in its 2001/2002 and 2002/2003 Reliability Reports did not consider capacity planning by service area.

Staff's review of MGE's reliability and gas supply plans for the 2005/2006 ACA period produced the following comments and concerns.

A. CAPACITY PLANNING

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[1] Staff has documented concerns with the Company's peak day planning/reliability analysis in the previous six cases, the 2004/2005 ACA, GR-2005-0169, the 2003/2004 ACA, GR-2005-0104, the 2002/2003 ACA, GR-2003-0330, 2001/2002 ACA, GR-2002-348, the 2000/2001 ACA, GR-2001-382, and the 1999/2000 ACA, GR-2000-425.

2. Joplin Service Area Capacity

MGE made changes to the capacity for the Joplin service area that impact the 2006/2007 winter, thus Staff will review the MGE decision for capacity for the Joplin service area in the 2006/2007 ACA review.

B. SUPPLY PLANS

1. MGE's Estimates of Normal Winter Requirements and Cold Winter Requirements

MGE's Demand/Capacity Analyses dated October 2004 and January 2006 provide estimates for normal winter requirements and cold winter requirements for only one year. MGE provides an explanation for the temperatures (heating degree days) that it considers for a cold winter. Because MGE's analyses are not updated every 12 months, MGE's Demand/Capacity Analysis should include monthly estimates for more than one year.

2. MGE's Supply Plans for Warm Weather

In making its gas supply plans, an LDC should consider the flexibility required of its supply plan if the weather is warmer or colder than normal. MGE's Demand/Capacity Analyses dated October 2004 and January 2006 do not provide estimates for warm winter requirements.

For significantly warmer than anticipated weather, the Company states it may be required to sell excess flowing volumes if contract storage resources are fully utilized for injection (Data Request No. 22). MGE does not explain what weather would be "warmer than anticipated." MGE provides no analysis of the cost to customers for selling off excess gas in warm winters versus the costs of demand charges for structuring its contracts so that MGE has more flexibility to meet varying winter conditions. The winter of 2005/2006 had temperatures that were 83% of normal (17% warmer than normal) for the winter as a whole and November and January were 21% and 41% warmer than normal. Although MGE did not have to sell off gas, it did exceed the storage injection limits of its TSS contract on numerous occasions and SSC classified these as authorized overruns. The costs are not material for this ACA. However, if SSC had not allowed authorized overruns, MGE would have been trying to sell this gas, possibly at a loss, or MGE could have been facing penalties from SSC.

MGE's plan should provide details of "warm weather" requirements and how it structures its supply – both contracted supply and storage to address warm weather. MGE's Demand/Capacity Analysis should include monthly estimates for warm winter requirements.

C. STORAGE PLANNING

Staff continues to have concerns with MGE's storage withdrawal plan for normal weather, which is to have the largest withdrawal in November. November is the heating season month with the fewest number of heating degree days (HDD) (November and March have nearly the same HDD; 670 HDD in November and 674 in March). Similar concerns were documented in the following ACA Cases: 2004/2005 ACA, GR-2005-0169; 2003/2004 ACA, GR-2005-0104; 2002/2003 ACA, GR-2003-0330; 2001/2002 ACA, GR-2002-348; and 2000/2001 ACA, GR-2001-382.

## 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, natural gas trading procedures, and 2005 - 2006 hedging strategy. While the Staff has concerns with certain types of instruments used by MGE to hedge its price risk, the Staff's conclusion is that, overall, MGE's hedging for this ACA period was reasonable and adequate.

Weather was mild overall during the heating season and thus actual delivered volumes to the customers were less than delivered volumes for normal weather. The winter hedge covered about 40% of gas actually delivered for November 2005 through March 2006. MGE withdrew less from storage than it would have with normal winter weather which brought the actual hedging percentage down to 40%. MGE combined storage, financial instruments, and fixed forward prices to hedge the volumes needed for the winter heating season November 2005 through March 2006. MGE utilized swaps for its financial instruments. MGE hedged 57% of normal winter requirements with storage, financial instruments, and fixed forward prices.

Based upon information the Staff has reviewed, the Company assessed which direction prices were going to move in the market. The Company started placing the financial hedges from February 2005 and continued purchasing them through the early part of November 2005.

Nevertheless, the Staff has concerns for some of the hedging instruments that were intended for the winter months November 2005 through March 2006. First, a portion of the swaps the Company utilized during September 2005 for the winter months November 2005 through March 2006 included basis swaps. Although MGE seemed to take advantage of the relatively high basis differential when it fixed the basis in September 2005, the Staff does not view basis swaps as hedges because basis swaps are still subject to movement of gas prices since the final gas prices would not be determined until NYMEX futures final settlements for the winter months. In fact, the basis further increased after the Company fixed the basis in September 2005, thus eventually leading to losses for the Company from the contacts. Second, MGE utilized daily spot market prices during the winter months for the fixed-price contracts. Although it may have been economically efficient for the Company to purchase the daily spot prices for the winter months November 2005, and also January through March 2006 when the market prices were relatively low, the Staff cautions MGE about counting winter daily spot purchases for hedging purposes since there is no guarantee that this same opportunity of low daily prices will occur each winter.

Although the Company used a diversified portfolio approach to hedge against market risks for the winter heating season November 2005 through March 2006, Staff recommends that the Company analyze its hedging risk for each winter month under normal conditions and cold weather conditions, including cold weather that may occur late in the winter season. This analysis should include a review of the volumes hedged and the associated cost. In addition, MGE should analyze each month where price exposure exists, to evaluate the costs and risks of not covering, or minimally covering, the unhedged price volatility for that particular month. The Staff further recommends that the Company continue to update and document its hedging decisions and provide the documentation to the Staff during each ACA review. This documentation should include an overall hedging plan that addresses hedging goals, objectives, and strategies for each month of each ACA review. The hedging plan should be documented and completed well in advance of each approaching winter season. The Company should also evaluate longer-term time horizons for placing hedges. Historical Company practice has shown that hedging for the winter is generally not started until the spring prior to the upcoming winter. In essence, most of the hedging would be done from the time period between spring and fall just prior to the winter under consideration. However, the increased summer price volatility could easily subject the Company to market risk during the summer. Finally, the Company should test, in detail, for hedge effectiveness for any financial instruments that attempt to hedge the physical price risk exposure.

## VII. RECOMMENDATIONS

It is Staff's opinion that the Company should do the following:

1. Adjust its (over)/under-recovered ACA and Refund account balances in its next ACA filing to reflect the total amount of the Staff's adjustments shown in the table below. An over-recovery reflects the amount that is owed to the customer by the Company, while an under-recovery is an amount that is owed to the Company by the customers.

   a. The Staff's first proposed adjustment reduces gas costs by $414,650.51 to reflect the discounted transportation and storage rates as agreed in Case No. GM-2003-0238. This adjustment increases the over-recovery ACA balance. (MGE has already adjusted its ACA balance for the 2006/2007 ACA period by $414,650.51 to reflect the Staff's proposed adjustment.)

   b. The Staff's second proposed adjustment has the effect of increasing gas costs to customers by $187,209.13 to correct MGE's portion of capacity release and off-system sales revenues. This adjustment reduces the ACA over-recovery balance.

The net effect of both proposed adjustments is $227,441.38 owed to the customers of MGE.

| Account | 6-30-06 Ending Balances per MGE Filing | Staff Adjustments | 6-30-06 Staff Recommended Ending Balances |
|---|---|---|---|
| ACA Balance | $(46,864,845.40) | $ (227,441.38) | $ (47,092,286.78) |
| Large Volume Refund | $ (535,542.52) | $ 0 | $( 535,542.52) |

*Notes to Staff Adjustments and balances:*
*MGE has adjusted its ACA balance for the 2006/2007 ACA period by $414,650.51 for the discounted storage and transportation costs. Therefore the remaining adjustment of $187,209.13 would be made in MGE's 2007/2008 ACA filing.*

2. Review the concerns expressed by Staff in the Reliability Analysis and Gas Supply Planning section and respond within 30 days with any additional actions items being taken by Company to address Staff's concerns.

3. Carefully evaluate the types of financial instruments that are to be utilized for hedging as to whether the instruments truly represent hedges. It should also give careful consideration to the risk of placing too much reliance on late winter hedges that are placed during the same winter periods that are intended to be protected, and are actually underway. The Company should analyze its hedging risk for each winter month under normal conditions and cold weather conditions, including cold weather that may occur late in the winter season. This analysis should include a review of the volumes hedged and the associated cost. MGE should analyze each month where price exposure exists, to evaluate the costs and risks of not covering, or minimally covering, the unhedged price volatility for that particular month. The Staff further recommends that the Company continue to update and document its hedging decisions, and provide the documentation to the Staff during each ACA review. This documentation should include an overall hedging plan that addresses hedging goals, objectives, and strategies for each month of each ACA review. The hedging plan should be documented and completed well in advance of each approaching winter season. The Company should also evaluate longer-term time horizons for placing hedges. Historical Company practice has shown that hedging for the winter is generally not started until the spring prior to the winter that is hedged. In essence, most of the hedging would be done from the time period between spring and fall just prior to the winter under consideration. However, the increased summer price volatility and similar volatility for the subsequent winter could easily subject the Company to market risk during the summer when the bulk of historical hedges have been placed. Finally, the Company should, in detail, test for hedge effectiveness for any financial instruments that attempt to hedge the physical price risk exposure.

Staff recommends that MGE's hedging information for the 2008-2009 ACA be submitted no later than May 30, 2008.

4. Respond to recommendations included herein within 30 days.

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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| In the matter of Missouri Gas Energy Purchased Gas Adjustment Change | ) ) | Case No. GR-2006-0291 |

AFFIDAVIT OF DAVID M. SOMMERER

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

David M. Sommerer, being of lawful age, on his oath states: that as a Utility Regulatory Manager in the Procurement Analysis Department of the Utility Services Division, he has participated in the preparation of the foregoing report, consisting of 9 pages to be presented in the above case; that he has verified that the following Staff Memorandum was prepared by himself and Staff of the Commission that have knowledge of the matters set forth as described below; that he has verified with each of the Staff members listed below that the matters set forth in the Staff Memorandum are true and correct to the best of his knowledge and belief,

| | |
|---|---|
| Anne M. Allee: | Billed Revenues and Actual Gas Costs |
| Lesa Jenkins: | Reliability Analysis and Gas Supply Planning |
| Kwang Y. Choe: | Hedging |

that he has knowledge of the matters set forth in such report and that such matters are true to the best of his knowledge and belief.

David M. Sommerer

David M. Sommerer

Subscribed and sworn to before me this 27th day of December 2007.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
County of Cole
My Commission Exp. 07/01/2008

D. Suzie Mankin
Notary Public