Exhibit No.:
Issue: *Adjustment for Excess Transportation Capacity*
Witness: *Lesa A. Jenkins*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Rebuttal Testimony*
Case Nos.: *GR-2003-0330, GR-2002-348, (Consolidated)*
Date Testimony Prepared: *February 1, 2006*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

LESA A. JENKINS

MISSOURI GAS ENERGY
CASE NOS. GR-2003-0330, GR-2002-348
(Consolidated)

Jefferson City, Missouri
February 2006

****Denotes Highly Confidential Information****

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BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's Purchased Gas Adjustment Factors to be Audited in its 2002-2003 Actual Cost Adjustment	))))	**Case No. GR-2003-0330**
In the Matter of Missouri Gas Energy's Purchased Gas Adjustment Tariff Revisions to be Reviewed in its 2001-2002 Actual Cost Adjustment	))))	**Case No. GR-2002-348**

AFFIDAVIT OF LESA A. JENKINS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Lesa A. Jenkins, being of lawful age, on her oath states: that she has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 32 pages to be presented in the above case; that the answers in the following Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Lesa A. Jenkins

Subscribed and sworn to before me this 31st day of January, 2006.

TONI M. CHARLTON
NOTARY SEAL
NOTARY PUBLIC
STATE OF MISSOURI

TONI M. CHARLTON
Notary Public - State of Missouri
My Commission Expires December 28, 2008
Cole County
Commission #04474301

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Schedule 1: MGE Response to Data Request (DR) No. 162, GR-2003-0330

Schedule 2: MGE Response to Data Request (DR) No. 164, GR-2003-0330

Schedule 3: MGE Response to Data Request (DR) No. 167, GR-2003-0330

Schedule 4: Staff's Recommendation, dated June 28, 1996, in Case No. GO-96-243, Highly Confidential

REBUTTAL TESTIMONY

OF

LESA A. JENKINS

MISSOURI GAS ENERGY

CASE NOs. GR-2003-0330, GR-2002-348

(CONSOLIDATED)

Q. Please state your name and business address.

A. Lesa A. Jenkins, P.O. Box 360, Jefferson City, MO 65102.

Q. By whom are you employed and in what capacity?

A. I am a Regulatory Engineer in the Procurement Analysis Department with the Missouri Public Service Commission (Commission).

Q. Are you the same Lesa A. Jenkins who filed direct testimony in the consolidated Case Nos. GR-2003-0330 and GR-2002-348?

A. Yes, I am.

EXECUTIVE SUMMARY

Q. Please summarize your rebuttal testimony.

A. My direct and rebuttal testimonies provide support for a disallowance for excess capacity for the Kansas City and St. Joseph service areas for Missouri Gas Energy's (MGE) 2001/2002 and 2002/2003 ACA periods. MGE did not properly evaluate customers' natural gas requirements for a peak (coldest) day. As a result, MGE purchased more capacity than it needed to meet peak day requirements. Staff evaluated the cost of this excess reserve

margin and recommends that $2,041,931 be refunded to customers for the 2001/2002 ACA, Case No. GR-2002-348, and $2,015,661 for the 2002/2003 ACA, Case No. GR-2003-0330.

Staff evaluated MGE's plans and documented many concerns with those plans and explained why the MGE methodology is not reasonable. Since MGE's methodology was unreasonable, Staff calculated a reasonable peak day estimate to evaluate the costs to MGE's customers. My testimony explains why Staff's analysis of peak day requirements is more reasonable than the MGE analyses in its 2001/2002 and 2002/2003 Reliability Reports and the flawed analysis sponsored by MGE witness John J. Reed in his direct testimony, an analysis that was conducted after the ACA periods in question. My testimony also explains that attempts were made by Staff to assure that its estimates were reasonable by conducting several regression analyses and considering alternative methodologies of estimating peak day requirements.

Staff presents information showing that MGE witness David N. Kirkland's arguments are invalid regarding capacity release and transportation discounts being tied to the Staff adjustment for excess capacity. Additionally, Mr. Kirkland's comments regarding previous reductions for transportation reservation costs are not valid because these costs would have been reduced further if MGE had lowered its total contracted capacity by the amount recommended by Staff's excess capacity adjustment in these cases.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of MGE witnesses John J. Reed and David N. Kirkland related to Staff's proposed adjustments for Missouri Gas Energy (MGE or Company), Case Nos. GR-2003-0330 and

GR-2002-348. My rebuttal testimony is specifically related to "Excess Transportation Capacity."

REBUTTAL OF REED DIRECT

Q. Mr. Reed defines "design day" demand as the maximum demand that the utility is expected to experience under extreme conditions, which may not occur during a particular year. He defines "peak day" demand as the maximum amount of natural gas delivered to customers in any particular year. (Reed direct, p. 6, ll. 21 to p. 7, ll. 1-7). Mr. Reed states that local distribution companies plan to meet design day demand as opposed to peak day demand because purchasing capacity to cover peak day weather as opposed to design day weather could result in frequent interruptions of customer's gas supplies. (Reed direct, p. 24, ll. 21-23 and p. 25, ll. 1-5). Do all Missouri local distribution companies (LDCs) use these definitions of design day and peak day demand?

A. No. Not all LDCs use the term "design day" or "peak day" demand in the same manner. Some LDCs define "peak day" or "historic peak day" in the manner that Mr. Reed has defined "design day". Some LDCs define "design day" as an average normal demand for a month. Some LDCs use "design day" for a specific design condition, a condition that is not demand under "extreme conditions." In the reliability review or capacity planning process, Staff and the Companies are concerned with ensuring adequate capacity to meet a peak cold day requirement. The definition of adequate capacity and what constitutes peak day requirements can vary by Company. On page 2 of my direct testimony I explain the purpose of my reliability/peak day review as follows:

> The nature of my duties at the Commission has been to investigate and review natural gas reliability/peak day plans of the Missouri natural gas local distribution companies. The purpose of my review is to

> assure that natural gas companies use current, reliable data and reasonable methods to determine the maximum amount of gas the company might need on a peak day. A peak day is the coldest day that may reasonably be expected. Staff does that by reviewing the reasonableness of the assumptions the company uses for estimating how much natural gas customers may actually use (demand requirements); analyzing the companies' estimating tools; reviewing and analyzing transportation capacity, storage, peaking and supply resources utilized by the companies; reviewing and analyzing company base load and other gas supply requirements; and reviewing and analyzing any reasons the company may have for capacity that is more than a reasonable estimate for peak day requirements. A company should have the ability to transport enough, but not too much gas, to meet its peak day requirements. If a company does not purchase enough capacity to provide for its customers needs on a peak day, there could be large penalties, operations problems, or insufficient capacity to transport natural gas for firm customer (primarily residential and small commercial) requirements. If a company purchases more natural gas capacity than is necessary to meet customers' needs, the cost must be evaluated, because the excess capacity could be a waste of the ratepayer's money.

Q. Mr. Reed states that the Commission has not established a policy regarding "design day demand" forecasting for LDCs in the context of integrated resource planning (Reed direct, p. 9, ll. 19-20). Do you have anything to add to Mr. Reed's statement?

A. Yes. In the Investigation of Integrated Gas Resource Planning Rules, Case No. GO-95-329, page 3 of the Commission Order, it states:

> It is clear that, in a post-636 era of governmental restraint and greater freedom in the operation of the competitive market, additional burdensome regulation imposed by this Commission would be undesirable and regarded as anathema. It is equally clear that capable long-range planning is no longer an option, but a business necessity for those utilities that hope to survive in an increasingly competitive environment.

Q. Mr. Reed states that it is essential that the range of prudent behavior or the minimally acceptable level of behavior be communicated to the utility in advance of the utility being subject to those standards. (Reed direct, p. 16, ll. 13-22, and p. 21, ll. 22-24) Do you agree with Mr. Reed's statement?

A. No. It is my understanding that a prudence review considers what the Company knew or should have reasonably known when it made its natural gas purchasing decisions. This is not a matter of behavior, but a matter of a company doing a reasonable job of planning how it will provide an essential service to its captive customers.

A natural gas local distribution company should not have to be told to reasonably plan to meet its customers' needs for cold day requirements. Further, Staff is not stating that there is only one method for appropriate planning. The purpose of the reliability review is to assure that natural gas companies use current, reliable data and reasonable methods to determine the maximum amount of gas the company might need on a peak cold day. Staff reviews the methods utilized by each LDC in the context of its specific conditions. Staff reviews the reserve margin of each local distribution company (LDC) based on its explanation of the assumptions used to estimate the peak demand and the capacity available to meet that demand. The reserve margin targeted by each LDC depends upon a number of factors such as expected customer growth, the expiration date of contracts, cost of carrying any reserve volumes, the rationale surrounding the selection of the peak cold day and assumptions regarding peaking capacities. Therefore, a reserve margin that would be appropriate given one LDC's analysis may not be appropriate for another LDC.

I have documented in my direct testimony why the MGE method is not reasonable. (The discussion of peak heating degree day begins on page 12, the discussion of Staff's disagreement with MGE's peak day methodology begins on page 19, and the discussion of the imprudent decision for 2001/2002 and 2002/2003 begins on page 29.)

Q. Mr. Reed argues that there are no defined capacity planning standards in Missouri and, therefore, Staff's claim that MGE has surplus capacity is based upon Staff's

own, ad hoc methodology that has never been subjected to any sort of critical analysis, much less approved by the Commission or formally disseminated to the gas utilities subject to the jurisdiction of the Commission. Mr. Reed alleges that Staff's analysis is flawed and unreliable. (Reed direct, p. 22, ll. 6-10 and 15-18) Do you have any comments regarding Mr. Reed's statements?

A. Yes. Because of the difference in LDC operations, discussed above, it is not reasonable to develop a single standard for Missouri LDCs. This does not relieve an LDC from performing its most basic function of planning for adequate capacity to meet its customers' needs. To meet its customers' needs, a company must reserve enough capacity on interstate pipelines to move an adequate amount of natural gas to meet its customers' needs in each of its service areas.

It is Staff's job to evaluate the Company's plans and decisions to ensure that a company buys enough capacity, without overbuying capacity, to meet firm customer peak day capacity and natural gas supply requirements. Staff's reliability analysis is concerned with both a plan that has inadequate volumes of capacity and a plan that has excess volumes of capacity. Inadequate volumes of capacity means that if there is a very cold day, a historic peak cold day, there will not be enough space reserved on the pipeline to transport the necessary natural gas to an LDC's customers. Excess volumes of capacity means that even on a very cold day, a historic peak cold day, the LDC will not use the full pipeline capacity that it has reserved. This may mean that customers are paying too much for transportation capacity. When there is a cost to customers for this excess capacity, Staff evaluates this cost and may recommend an adjustment.

Staff evaluated MGE's plans and documented many concerns with those plans. I have documented in my direct testimony why the MGE method is not reasonable. (The discussion of peak heating degree day begins on page 12, the discussion of Staff's disagreement with MGE's peak day methodology begins on page 19, and the discussion of the imprudent decision for 2001/2002 and 2002/2003 begins on page 29.)

Since MGE's methodology was unreasonable, Staff calculated a reasonable peak day estimate to evaluate the costs to MGE's customers. This estimate is documented in my direct testimony beginning on page 20.

Q. Mr. Reed states that when he conducted an independent demand/supply analysis for the 2001/2002 and 2002/2003 ACA periods, the analysis produced results that were not materially different than the analysis produced by MGE in its reliability reports for the 2001/2002 and 2002/2003 ACA periods. (Reed direct, p. 22, ll. 11-15, p. 22, ll. 2-12) Do you have any comments regarding Mr. Reed's statement?

A. Yes. Mr. Reed only comments that MGE's analysis is reasonable because he has compared it to another, after-the-fact analysis. He does not offer support of the methodology MGE used in its 2001/2002 and 2002/2003 reliability reports. The after-the-fact analysis does not demonstrate that MGE's decisions at the time were reasonable. I have documented in my direct testimony why the MGE method is not reasonable. (The discussion of peak heating degree day begins on page 12, the discussion of Staff's disagreement with MGE's peak day methodology begins on page 19, and the discussion of the imprudent decision for 2001/2002 and 2002/2003 begins on page 29.)

Mr. Reed's analysis was conducted in the fall of 2005 (MGE response to Data Request No. 162, attached as Schedule 1). Mr. Reed's after-the-fact methodology is flawed for the following reasons:

(a) Inappropriate selection of peak heating day; and

(b) Limited Examination of Data.

INAPPROPRIATE SELECTION OF PEAK HEATING DEGREE DAY

Q. Please explain why you disagree with MGE's selection of heating degree day.

A. Mr. Reed selects 81.9 heating degree days (HDD) for the peak HDD in the Kansas City and St. Joseph area and 76.3 HDD for the Joplin area based on what he calls a 1-in-100 year event (Reed direct, p. 27, ll. 16 to p. 28, ll. 22.) From a review of the single coldest day in each of the years of 1971/1972 through 2000/2001, 30 data points, MGE uses the mean and the standard deviation to calculate with 99% probability (99% confidence interval) what the peak day will be. By reviewing only the one cold day in each year, MGE is looking at thirty data points that range from a low of 48.5 HDD to a high of 80.4 HDD for Kansas City and a low of 44.1 HDD to a high of 72.0 HDD for Joplin. (Source: MGE response to Data Request No. 164, attached as Schedule 2, and MGE response to Data Request No. 105, Case No. GR-2002-348)

Mr. Reed's consideration of only the single coldest day in each year includes winters with relatively warm HDD and ignores data from winters that have numerous cold days. This is unreasonable because Mr. Reed limits his data set and this limited data set will have a larger standard deviation that, in this analysis, results in an unreasonable expectation of a cold day, especially for the Joplin area. (Mr. Reed selects 76.3 HDD for the Joplin area and Staff selects 72.1 HDD. Mr. Reed selects 81.9 HDD for the Kansas City and St. Joseph areas

and Staff selects 81.5 HDD). The limited data considered by Mr. Reed is shown in the table below.

Kansas City Annual Peak Heating Degree Day				
Year	Peak HDD		Sorted from Highest to Lowest	
1971/1972	68.71		1989/1990	80.41
1972/1973	65.99		1983/1984	77.41
1973/1974	71.49		1981/1982	75.99
1974/1975	57.99		1973/1974	71.49
1975/1976	64.99		1976/1977	70.99
1976/1977	70.99		1978/1979	69.99
1977/1978	64.31		1971/1972	68.71
1978/1979	69.99		1984/1985	68.49
1979/1980	62.49		1987/1988	67.76
1980/1981	66.42		1995/1996	67.50
1981/1982	75.99		1990/1991	66.92
1982/1983	53.04		1988/1989	66.42
1983/1984	77.41		1980/1981	66.42
1984/1985	68.49		1972/1973	65.99
1985/1986	61.43		1998/1999	65.00
1986/1987	52.49		1975/1976	64.99
1987/1988	67.76		1977/1978	64.31
1988/1989	66.42		1996/1997	64.00
1989/1990	80.41		1979/1980	62.49
1990/1991	66.92		1992/1993	61.50
1991/1992	50.00		1985/1986	61.43
1992/1993	61.50		2000/2001	60.00
1993/1994	59.00		1994/1995	59.00
1994/1995	59.00		1993/1994	59.00
1995/1996	67.50		1974/1975	57.99
1996/1997	64.00		1997/1998	56.50
1997/1998	56.50		1982/1983	53.04
1998/1999	65.00		1986/1987	52.49
1999/2000	48.50		1991/1992	50.00
2000/2001	60.00		1999/2000	48.50

Source: MGE response to Data Request Nos. 164 and 105

To explain Staff's concerns further, the actual HDD data in these thirty years must be reviewed. In the Kansas City data considered by Mr. Reed, four of the 30 days have less than 55 HDD. However, by examining the Kansas City daily winter HDD data from a recent

year, the year 2000/2001 it shows that there were ** _____ **. By examining the daily winter HDD data from 1989/1990, the year with the coldest HDD in the list below, it shows that there were ** _____ _____ **. Mr. Reed is unreasonably limiting the data that he reviews.

Staff finds a different peak cold day by examining the coldest days in these years. As noted in my direct testimony, a 99% confidence interval analysis of the coldest 50 days for Kansas City for 1960/1961 through 2000/2001 results in a peak day of ** ___ ** HDD. A 99% confidence interval of the top 40 HDD results in a peak day of ** ___ ** HDD. (Jenkins direct, p. 15, ll. 12-16) A **99.9%** confidence interval of this same data reveals a peak of ** ___ ** and ** ___ ** HDD, respectively for the coldest 50 and 40 days.

MGE's data reveals that the actual Kansas City peak day was ** ___ ** HDD on December 22, 1989. However, to ensure a reasonable peak day, Staff reviewed another source of HDD provided by MGE, its ** _____ ** data and found a peak of 81.5 HDD by reviewing HDD high and lows from 9am to 9am with the peak occurring on December 22, 1989. Staff's analysis for Kansas City and St. Joseph uses a peak of 81.5 as the highest observed HDD from review of MGE's ** _____ ** data.

Staff's analysis of the coldest 50 days for Joplin for 1961/1962 through 2000/2001 results in a peak day of ** ___** HDD using a 99% confidence interval. A review of the top 40 HDD results in a peak day of ** ___** HDD using a 99% confidence interval. Staff review of NOAA data shows the peak occurred December 22, 1989, and was 72.1 HDD. Staff's analysis for Joplin uses a peak of 72.1 as the highest observed HDD.

MGE did not provide ** _____ ** data for the Joplin service area or any data that could be reviewed for gas day highs and lows. (Heating degree days for a gas day are

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sometimes reviewed because the hours for a gas day, 9am to 9am, differ from a calendar day. Thus, the highs and lows for a particular gas day may be different from the calendar day.) Staff would analyze such data if MGE provided or used data in this manner.

Staff believes that its more extensive review of the heating degree day data is reasonable for selecting the peak cold day for each service area.

Q. Mr. Reed states that Staff's proposed design day for Kansas City and St. Joseph only represents a 1-in-87 likelihood of occurrence and for Joplin only represents a 1-in-25 likelihood of occurrence. (Reed direct, pp. 29, ll. 19 to page 30, ll. 7 and pp. 31, ll. 20 to page 32, ll. 4.). Do you agree with Mr. Reed's statement?

A. No. As noted previously, MGE only reviews the one coldest day in each of the years, 30 data points, and ignores data from winters that have numerous cold days. Staff's selection of the highest observed HDD for each service area, 81.5 HDD for Kansas City and St. Joseph and 72.1 HDD for Joplin, are colder than the 99% confidence interval for the coldest days in those years, 1971/1972 through 2000/2001. Thus, Staff used the highest observed HDD for each service area.

Q. Mr. Reed states that there is effectively no cost difference between his 1-in-100 year design weather planning standard for Kansas City and St. Joseph and the use of Staff's proposed coldest observed HDD. (Reed direct, pp. 31, ll. 4-7). Do you have any comments regarding Mr. Reed's statement?

A. Yes. The difference in HDD is between the Staff estimate and the original MGE estimate in its 2001/2002 and 2002/2003 reliability reports, not Mr. Reed's after-the-fact analysis. The MGE reliability reports utilize ** __ ** HDD as the peak cold day for the entire service area. As noted in my direct testimony, pages 18-19, if MGE had used

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** ___ ** HDD in its 2001/2002 Reliability Report, Staff's estimate of peak day demand would be 7.2% less than the Company estimate (instead of 10.9% less).

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Staff's recommended disallowance for excess capacity is based on ** _____ ** dekatherms per day. Thus, the difference of ** _____ ** dekatherms caused simply by selecting a different peak HDD accounts for 64% of Staff's recommended excess capacity disallowance for Kansas City and St. Joseph.

Q. Is Mr. Reed's selection of heating degree day the same as that selected by MGE in its 2001/2002 and 2002/2003 reliability reports?

A. No. Mr. Reed selects 81.9 HDD for the peak HDD in the Kansas City and St. Joseph area and 76.3 HDD for the Joplin area. (Reed direct, p. 27, ll. 16 to p. 28, ll. 22.) MGE, in its 2001/2002 Reliability Report and 2002/2003 Reliability Report, uses a peak

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historic heating degree day for the entire Missouri system – Kansas City, St. Joseph and Joplin – using a Kansas City peak cold day. These two MGE reliability reports indicate that the historic peak cold day for the Kansas City market area is ** __ ** HDD and occurred on December 21, 1989. However, the Company's response to Data Request No. 96, Case No. GR-2002-348, attached as Schedule 7 in my direct testimony, states that the Kansas City peak day is ** __ ** HDD. MGE's data reveals that the peak for Joplin is ** __ ** HDD.

LIMITED EXAMINATION OF DATA

Q. Mr. Reed states that natural gas demand can be thought of as having two components – a variable portion that is responsive to changes in weather and a more constant baseload component (Reed direct, pp. 32, ll. 8-11). Do you have any comments regarding Mr. Reed's statement?

A. Yes. Not all Missouri LDCs define natural gas demand in this manner. LDCs examine the usage data for their service area(s). The LDCs' analyses can reveal that usage may be impacted by whether it is a weekday or a weekend, by moderate temperatures in shoulder months or in winter months, or for other reasons.

Q. Why wouldn't all LDCs define usage in the same manner?

A. LDCs estimate usage for different purposes. For purposes of determining how much transportation capacity to contract for, an LDC must consider the estimated usage for a very cold day. An LDC is not interested in a national average or a state average when it is making decisions about the capacity it may need should a very cold day occur. An LDC is interested in how much capacity it needs for its customers. An LDC that thoroughly analyzes its data may find that it is not sufficient to just look at a baseload component and a heatload component of natural gas when trying to estimate usage for very cold days.

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Some LDCs serve enough business customers that are not open on weekends, so load drops, and usage estimates must consider weekday versus weekend usage. Some LDCs serve business customers whose usage is not just dictated by a baseload and a heatload component. These businesses may have some months, not related to summer or winter, that require extended operating hours. Some LDCs have determined that usage in the shoulder months of October, November, March or April is not directly related to HDD. The exact reason is not necessarily examined, but this determination impacts the LDCs planning for the shoulder months. One reason for this change in usage in shoulder months may be that in trying to conserve, some customers turn their heat off when the weather is moderate for several days, or may not turn their heat on unless it is cold for more than a few days. Likewise, some LDCs have concluded that usage on moderate days in any winter month, not just shoulder months, is not directly related to HDD (e.g. if the temperatures are above a certain temperature such as 50 or 55 degrees Fahrenheit). Again the exact reason is not known, but an LDC realizes this fact by examining the data and then considers how to estimate usage for cold days given the facts of the data.

Mr. Reed relies on a definition of baseload and heatload rather than actually examining and analyzing the data to provide a reasonable estimate of usage for a peak cold day.

Q. Mr. Reed states that baseload demand is the portion of total demand that is constant and will not change with colder temperatures (Reed direct, p. 32, ll. 19-22). Mr. Reed also states that the primary methodology utilized by LDCs to calculate baseload demand is to calculate the average daily demand during the summer months in which there are few to no heating degree days (Reed direct, p. 33, ll. 6 - 13). Mr. Reed also states that

Staff's projected baseload demand estimate are inconsistent with reality (Reed direct, p. 34, ll. 10-21). Do you have any comments regarding Mr. Reed's statements?

A. Yes. LDCs calculate baseload demand for various reasons, including how to structure natural gas contracts for summer months, shoulder months, or winter months.

An LDC can have more than one baseload contract for a 12-month period. Some LDCs have baseload supply contracts that cover the months of November through March. Some LDCs have baseload supply contracts that may only span one, two or three months.

Storage is another reason that LDCs manage baseload contracts differently. Some LDCs have access to storage that allows them to inject natural gas into storage even in the winter months. This permits some LDCs to contract for more baseload gas because if the weather is warm, it can inject the unused natural gas into storage on those days. Other LDCs have no storage or may have storage contracts with rigid withdrawal parameters. Thus, these LDCs would look at baseload gas differently than an LDC with flexible storage parameters.

Another reason to assess baseload gas needs is to estimate pipeline capacity requirements. An LDC's analyses of its data can reveal that the baseload component is different in the summer months and winter months. A thorough examination of the data may reveal that simply adding a baseload component and a heatload component is not adequate when an LDC is estimating customer usage for very cold days.

Q. Do you have further comments regarding baseload?

A. Yes. In his testimony on pages 32 through 33, Mr. Reed is relying on a definition of baseload rather than explaining how the data is reviewed to provide a reasonable estimate of usage for a peak cold day. Additionally, Mr. Reed offers support for his use of summer month baseload by referring to a Laclede document. He refers to Laclede's

definition of baseload on its website (MGE response to Data Request No. 167, attached as Schedule 3). However, as noted above, an LDC evaluates baseload for many reasons. An LDC's definition of baseload does not explain how it evaluates peak day requirements.

Mr. Reed also refers to MGE's 1996/1997 Reliability Report dated May 1, 1996. In that report MGE defines baseload as the average use per customer during the summer months when there are no heating degree days. Mr. Reed notes that, in a 1996 memorandum, Staff concluded that MGE's planning process as submitted, including the base load calculation, was deemed adequate. (MGE Response to Data Request No. 167, attached as Schedule 3) This is not accurate. Review of the June 28, 1996, Staff memorandum, attached as Schedule 4, shows that Staff did not state specifically that the baseload calculation is adequate. It simply states that Section I.A. Peak Day Projections "reviews the historic weather induced peak day gas demand and the criteria utilized for estimating peak demand during the forecast period." The Staff Response is listed as "Adequate." It does not specifically comment on MGE's baseload calculations. The Staff response does not state or imply that an LDC must never reexamine, change or refine its methodology. In fact in the 1998/1999 Reliability Report, MGE did change its methodology. In the MGE 1998/1999 Report, dated May 1, 1998, MGE states,

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Thus, MGE changed its approach for calculating peak day requirements between the 1996/1997 Reliability Report and the 1998/1999 Reliability Report. MGE provided similar information in its 2000/2001 Reliability Report, dated July 1, 2000 and its 2001/2002 Reliability Report, dated July 1, 2001. In both the 2000/2001 ACA and 2001/2002 ACA, Case Nos. GR-2001-382 and GR-2002-348, Staff's ACA recommendation noted concerns with MGE's reliability planning. Staff also noted that although the MGE Reliability Reports state that a series of regression analyses are performed on the historic daily firm sales to determine the base load and weather sensitive heat load factors, when Staff attempted to obtain copies of this data for analysis, the Company stated that this analysis was undertaken in 1994 and cannot be found.

Q. Mr. Reed states that there are many ways in which a heatload factor can be calculated. Additionally he agrees that an appropriate approach to developing the heatload factor for design day demand forecasting is to utilize a regression analysis. He further states that it is extremely important to consider the data set used to conduct the regression analysis since the results represent the input data. (Reed direct, p. 35, ll. 14, to page 36, ll. 3). Do you have any comments regarding Mr. Reed's statements?

A. Yes. Mr. Reed fails to point out that the analysis conducted by MGE for its 2001/2002 Reliability Report was not a regression analysis. As noted on page 20 of my direct testimony, the heatload estimate in the Company's 2001/2002 Reliability Report for the peak day is simply an evaluation of usage on one cold day. Staff does not believe that the review of one cold day in each year, a single data point, is sufficient to establish the peak day heat load factor.

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Q. Mr. Reed states that he used twelve data points, the three highest demand days that were also within the ten coldest days for the four winters for which data was available at the time of the 2001/2002 period. He states that the data utilized by Concentric Energy Advisors, Inc. (CEA) were the demand and heating degree days associated with very cold days and most representative of what was being predicted – heatload factor for a design day – a very cold day. (Reed direct, p. 36, ll. 7-16 and p. 38, ll. 4-15) Do you agree with Mr. Reed's statements?

A. No. By choosing to evaluate only 12 data points, CEA disregards usage on many high usage days. The 12 data points include usage for heating degree days as low as 44.5, while ignoring many days that are much colder.

Schedule 10 of my direct testimony lists the usage and heating degree days for Kansas City, 604 data points that were used in Staff's analysis. The following table lists the top 50 usage days, and CEA's after-the-fact hand screened data points. The list illustrates that CEA omitted many data points. Mr. Reed provides no rationale for excluding the other data points, other than asserting that these 12 data points are representative of usage on a very cold day. CEA never supports or justifies using a day with 44.5 HDD because it is "representative", but excluding data for a day with 58 or 59 HDD because it is not representative.

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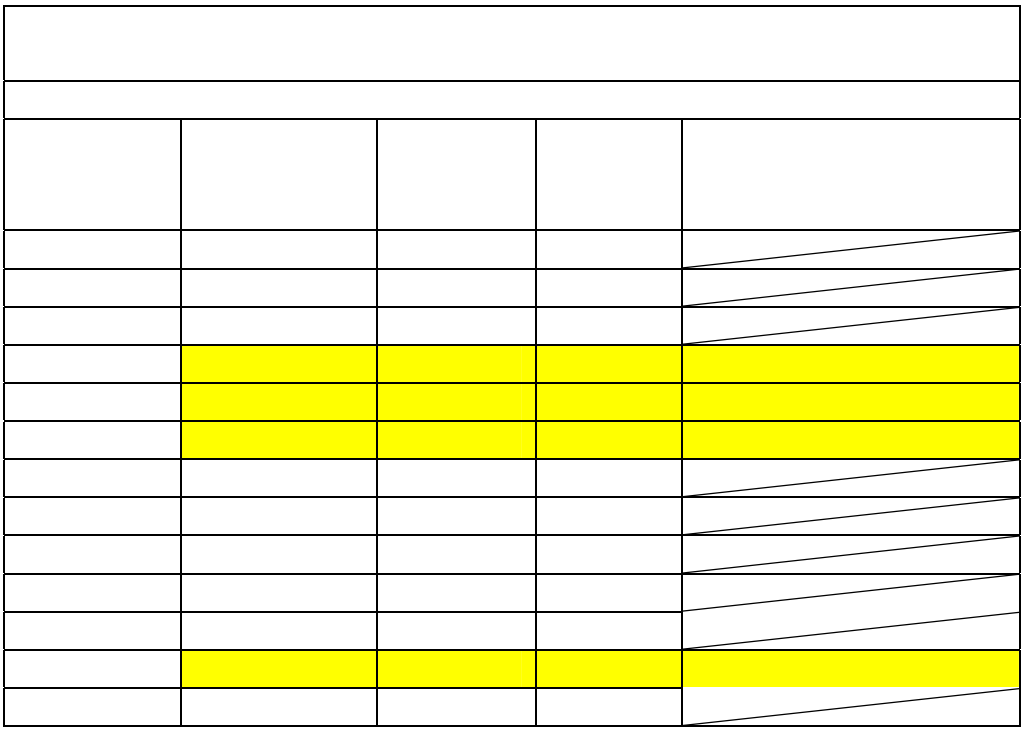

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Q. Mr. Reed makes statements about how Staff calculated heatload and baseload. (Reed direct, pp. 34-37) Do you have any comments regarding Mr. Reed's statements?

A. Yes. Staff took steps to assure that its estimates were reasonable. Staff considered several regression analyses of the daily data for each service area to obtain estimates of peak day requirements. I explain this in my direct testimony, page 20, lines 20 through 23, line 7. Additionally, Staff considered more recent data when evaluating the reserve margin for 2002/2003, simply as a check of the analysis for the 2001/2002 ACA, as explained on page 38, lines 4-16 of my direct testimony. Additionally, in an attempt to look at other reasonable methods for estimating usage requirements, Staff conducted another analysis for each service area for usage with HDD of 15 or greater (Jenkins direct, p. 39, line 5 through p. 41, line 15). This final review revealed net excess costs to customers for the 2002/2003 ACA period of $1,284,439 to $2,426,474, depending on how the transportation and capacity contracts were structured. (Staff provided three scenarios of how the

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transportation capacity and storage contracts could have been structured. Jenkins direct, p. 41, ll. 3-15). From this systematic analysis, Staff concluded that since its recommended adjustments of $2,041,931 in Case No. GR-2002-348 and $2,015,661 in Case No. GR-2003-0330 are within the range considered in these three scenarios, the Staff recommended adjustment is reasonable.

Q. Mr. Reed states that since MGE has not experienced a design day during the time period for which MGE has demand data available, there are no actual data points available that are truly representative of design day needs. Therefore, due to an absence of actual design day demand data in the data set that is available to predict design day demand, it is critical that demand data that is most representative or closest to design day demand conditions be utilized in the regression equation. (Reed direct, p. 38, ll. 9-15) Mr. Reed uses this as a reason for discrediting Staff's analysis (Reed direct, p. 38, ll. 17 through p. 42, ll. 31) Do you have any comments regarding Mr. Reed's statements?

A. Yes. One of the purposes of an LDC's data analyses is to determine which factors must be considered to reasonably estimate the peak day requirements. The LDC must reasonably evaluate the available data in order to obtain reasonable results. Staff does not disagree that usage has a baseload component and a heatload component, but the data must be reasonably considered when developing the estimate of peak day.

As noted above, Mr. Reed relies on a definition of usage that includes only two components – a variable portion that is responsive to changes in weather and a more constant baseload component. Mr. Reed narrows his definition further by examining baseload in only the months of July and August and heatload for only 12 data points. Mr. Reed's selection of only 12 data points does not include usage on just high usage days. Mr. Reed provides no

reasonable explanation for including only 12 data points in his heatload analysis and ignoring usage on other cold days. For example, Mr. Reed does not offer a plausible explanation of why usage for 1/23/2000 is included, usage of 398,155 MMBtu for a day with 44.5 HDD, and usage for 12/18/2000 is not included, usage of 533,563 MMBtu for a day with 53.0 HDD. Usage on 12/18/2000 is 34% more than usage on 1/23/2000, but is not considered in Mr. Reed's analysis.

What the following plot of the Kansas City service area data shows is that usage at any heating degree day will have some variability. So rather than arbitrarily selecting 12 data points, Staff believes MGE should evaluate its data more thoroughly and add a reasonable reserve for variation of the usage data.

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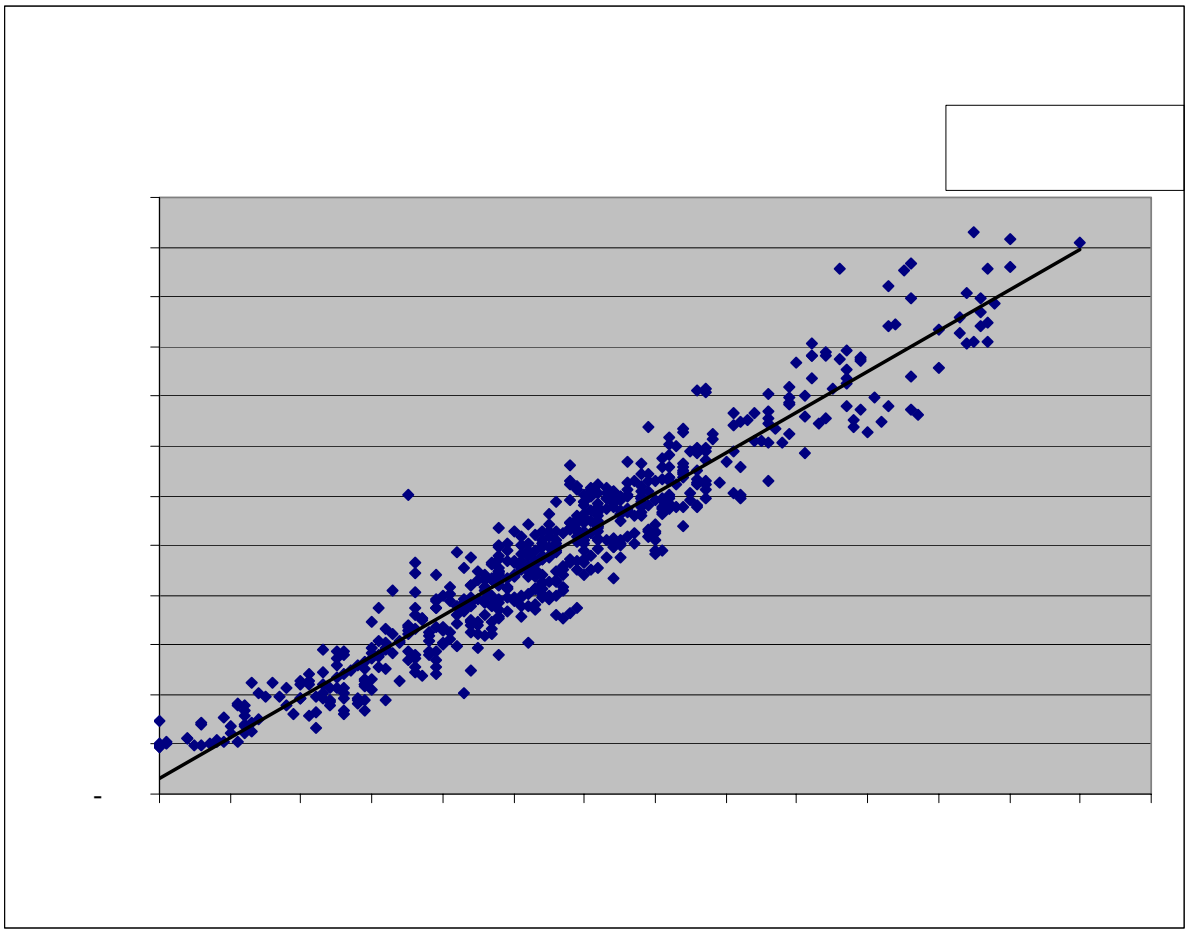

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Staff includes the standard error of the y-estimate in its calculations, to allow for variation. (The standard error is a measure of the amount of error in the prediction of y, and y in this analysis is estimated usage). Staff also made attempts to assure that its estimates were reasonable by conducting several regression analyses and considering alternative methodologies of estimating peak day requirements. I describe these in my direct testimony, page 20, lines 20 through 23, line 7, page 38, lines 4-16, and page 39, line 5 through page 41, line 15. One of these methodologies considers usage for heating degree days of 15 or greater. (Jenkins direct, p. 39, ll. 5 through p. 41, ll. 15)

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RESERVE MARGIN

Q. Mr. Reed's methodology identifies a ** _____ ** of capacity for Joplin for 2005/2006. (Reed direct, p. 45, ll. 15-19) Did MGE's 2001/2002 or 2002/2003 Reliability Reports identify any deficiencies in capacity for the MGE services areas?

A. Yes. However, the MGE 2001/2002 and 2002/2003 Reliability reports did not split out the peak day analysis for each service area.

MGE's 2001/2002 Reliability Report, dated July 1, 2001, looks at future years' estimated peak day demand and capacity for the entire service area of Kansas City, St. Joseph and Joplin. ** _____

_____

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_____. **

MGE's 2002/2003 Reliability Report, dated July 1, 2002, also looks at future years' estimated peak day demand and capacity for the entire service area of Kansas City, St. Joseph and Joplin. ** _____

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_____ **

Q. Did Staff's analysis identify any shortfall of capacity for the MGE service areas?

A. Yes. Staff's analysis identified ** _____ _____ **. This is described on page 27, line 9 through page 29, line 15 of my direct testimony.

Q. Why did Staff conduct a peak day analysis for each service area rather than the entire service area?

A. As stated on page 24 of my direct testimony:

> First, Staff considered MGE daily data for each service area of Kansas City, St. Joseph and Joplin, rather than a total for all service areas, because MGE must plan to provide sufficient, but not excess capacity, for each service area for even the coldest days. Reasonable planning to meet customers' needs must be done for each area because the overall capacity for a monthly average may be at an acceptable level, or the daily overall capacity at an acceptable level, but if, on the coldest day, there is excess capacity in one area and inadequate capacity in another area, the Company is not meeting its customers' needs. Because of pipeline operations, excess capacity in the Kansas City and St. Joseph areas cannot be relied on to offset shortfalls of capacity in Joplin. In other words, excess capacity in Kansas City and St. Joseph cannot be shifted for delivery to the Joplin service areas where capacity is inadequate for a peak cold day.

Q. You stated that the MGE 2001/2002 Reliability Report shows that MGE was examining the need for additional capacity ** _____ ** prior to the need for the capacity, and the MGE 2002/2003 Reliability Report shows that MGE was examining the

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need for additional capacity ** _____ ** prior to the need for the capacity. Why is this important?

A. An LDC may acquire capacity in chunks to assure adequate capacity in upcoming years. Consideration of this chunky acquisition of capacity is also considered in the Staff review, as noted on p. 27, lines 9-17 of my direct testimony. Staff looked several years out to the estimate for peak day in 2005/2006, four years after the 2001/2002 ACA, to evaluate the reasonableness of the MGE reserve margin. Staff believes this is consistent with the MGE capacity planning horizon.

REBUTTAL OF KIRKLAND DIRECT

Q. Mr. Kirkland states that MGE's capacity increased to ** _____ ** MMBtu/day by the end of the 2002/2003 ACA period. (Kirkland direct, p.15, ll. 1-2) Do you have anything to add to this statement?

A. Yes. The capacity actually increased to ** _____ ** in 2001/2002. As explained on pages 8 and 9 of my direct testimony, for the 2000/2001 ACA, the transportation capacity was ** _____ **dekatherms per day. For the 2001/2002 and 2002/2003 ACA, the transportation capacity is ** _____ **dekatherms per day. The Company contracted for an additional ** _____ ** beginning with the 2001/2002 ACA for a term of ** _____ **. This increase is also noted in footnote 2 of Mr. Kirkland's direct, Schedule 15.

The total daily volume for the ** _____

_____

_____ **

Q. Is this the same capacity value used by MGE in its evaluation?

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A. Yes. Staff uses the same capacity value, or maximum daily quantity (MDQ), provided and used by MGE in its 2001/2002 Reliability Report and 2002/2003 Reliability Report. (MGE's capacity value is shown on page 5, Figure I-2, and page 14 of the 2001/2002 Reliability Report, attached as Schedules 2 and 3 of my direct testimony. It is also shown on page 21, Figure I-12, and page 25 of the 2002/2003 Reliability Report, attached as Schedules 4 and 5 of my direct testimony.)

Q. Mr. Kirkland states that the 2001 consolidation of contracts on Southern Star reduced MGE's reservation charges by $321,108 over the five-year term of the agreement. He also refers to enhanced flexibility allowed by the renegotiated contract. (Kirkland direct, p. 17, ll. 22 to p. 18, ll. 15) Do you have any comments regarding Mr. Kirkland's statements?

A. Yes. Mr. Kirkland's savings of $321,108 considered that the total contracted volume on Southern Star in 2000/2001 continues at the same volume for 2001/2002 through 2005/2006. Reservation charges would have reduced even further had MGE reduced the market area transportation capacity on Southern Star. Mr. Kirkland does not provide an analysis of how much the reservation charges would have been reduced on Southern Star had MGE lowered its total contracted capacity by the amount recommended by Staff's excess capacity adjustment in these cases. The MGE decision to maintain the excess transportation capacity on Southern Star affects the costs to customers beginning in the 2001/2002 ACA and continuing through the 2005/2006 ACA. Staff evaluated the cost of this excess capacity as $2,041,931 for the 2001/2002 ACA period and $2,015,661 for the 2002/2003 ACA period.

Additionally, Staff does not dispute Mr. Kirkland's statements that the Trans-Storage Service (TSS) contract has greater flexibility in that it has no-notice provisions, but MGE

also has another ** _____ _____ ** Staff evaluated how MGE might have structured its contracts differently (Jenkins direct, p. 31, ll. 14 to p. 34, ll. 7). This analysis shows that natural gas from storage can be used to meet ** _____ ** of the peak day requirements using the MGE plan and ** _____ ** in the three scenarios evaluated by Staff. Thus, for an extremely cold day, there is a large portion of the supply requirements that must come from non-storage resources in both the MGE plan and in the three scenarios considered by Staff.

Q. Do you have anything else to add regarding the TSS contract?

A. Yes. MGE provided a summary of the Southern Star TSS savings. Staff previously documented its concerns regarding those savings. As explained on page 30 of my direct testimony:

> The one page MGE summary, "Williams Gas Pipelines Central No-Notice Analysis", and the corresponding table in the 2001/2002 Reliability Report, pages A-2 and A-3 attached as Schedule 11, attempt to justify the ** _____ _____ **, but MGE does not address the additional market area costs associated with these changes. Additionally, the information in the 2001/2002 Reliability Report pertained to the entire ** _____ ** contract, not the incremental change made for the 2001/2002 ACA period. The MGE review in the 2001/2002 Reliability Report also assumes, unreasonably in Staff's view, that MGE would ** _____ _____ _____. ** This implies that MGE would make no attempt to increase flowing supply if the weather is extremely cold.

Q. Mr. Kirkland states that based on when the capacity was added and/or contract realigned, MGE's level of capacity has been reasonable compared to its demand estimates. (Kirkland direct, p. 19, ll. 4-5). Do you have anything to add to this statement?

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A. Yes. In order for the capacity decisions to be reasonable they must be based on reasonable demand estimates. I have demonstrated in my direct testimony why the MGE demand estimate is not reasonable. (The discussion of peak heating degree day begins on page 12, the discussion of Staff's disagreement with MGE's peak day methodology begins on page 19, and the discussion of the imprudent decision for 2001/2002 and 2002/2003 begins on page 29.)

Q. Mr. Kirkland states that the capacity release, off-system sales, and transportation discount sharing mechanisms negotiated and ultimately approved by the Commission for the 2001/2002 and 2002/2003 ACA periods were based on MGE's capacity portfolio in existence at that time and customers have already received substantial benefits from that portfolio, yet Staff is seeking to penalize MGE for having that portfolio. (Kirkland direct, p. 23, ll. 8-15). Do you agree with these statements?

A. No. I will address each item, capacity release, off-system sales, and transportation discounts separately.

(a) Capacity Release.

Mr. Kirkland states that MGE's customers derived substantial benefits from capacity release revenue during the 2001/2002 and 2002/2003 ACA periods (Kirkland direct, p. 21, ll. 11-22). I note in my direct testimony, page 35, line 20 through page 37, line 9 that this proposed disallowance is not related to MGE's incentive plan for capacity release and off-system sales. Staff states the following:

> Staff is not proposing to disallow the capacity release revenues. Furthermore, Staff does not believe that a lower peak day capacity value would have restricted capacity release revenues. MGE is not limited to releasing only the capacity that is in excess of the peak day requirements. As illustrated in the chart below for the Kansas City service area, capacity is available for release every month of the year.

Even at the lower transportation capacity level recommended by Staff, MGE could have released capacity.

Highly Confidential In Its Entirety

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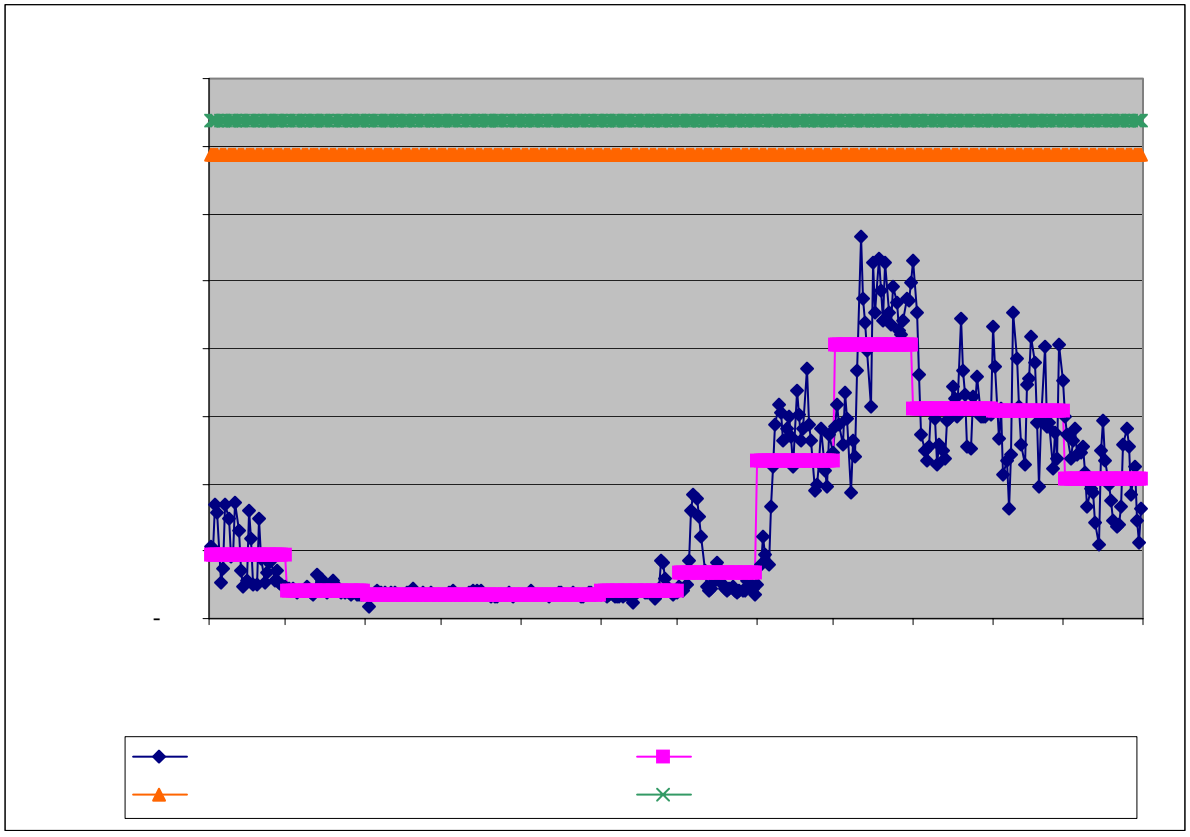

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During the non-winter months, large amounts of capacity are available for release. During the winter months, especially the months of December, January and February, there is less capacity available for release because of colder weather and the potential for a really cold day – a peak historic cold day of ** ___ ** HDD. However, MGE has addressed this through its provision to recall released capacity upon 24 hours notice. The Company states that most capacity releases are determined on a month-to-month basis and are recallable upon 24 hours notice. MGE also has some term capacity releases (more than a one-month release) and these have the same recall provisions as those released on a month-to-month basis. (Company response to Data Request No. 38, Case No. GR-2002-348). Thus, as the weather turns

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cold or is forecasted to be cold, MGE would monitor its capacity and recall any necessary capacity.

In fact, MGE has made capacity release revenues in every month of the year. The largest capacity release in terms of volumes and dollars was the month of ** _____ ** (from a review of July 1998 – June 2003 data.). MGE has not shown that the capacity released is only that which is in excess of peak day requirements.

(b) Off-System Sales.

Mr. Kirkland provides no additional quantification of off-system sales in his direct testimony. However, the sale of the commodity is not related to peak day capacity. The off-system sales were comprised of natural gas supply only; they were not bundled with transportation capacity. Thus, Staff's proposed disallowance would not affect MGE's off-system sales.

(c) Transportation Discounts.

Mr. Kirkland states that MGE's customers derived substantial benefits from transportation discounts obtained by MGE during the 2001/2002 and 2002/2003 ACA periods. He states that MGE's customers' overall costs were reduced by over $3.0 million for these two ACA periods. (Kirkland direct, p. 22, ll. 11-21).

The discount provisions of the tariff would have impacted August 31, 2000 through August 31, 2002. The savings, shown in Schedule 18 of Mr. Kirkland's direct, are ** _____ **. A review of past workpapers for MGE reveals that the transportation discount savings for 2001/2002 include ** ___ _____ ** and Staff has made no adjustment in either the 2001/2002 ACA or 2002/2003 ACA related to production area capacity. Additionally, part of the MGE transportation discounts were associated with Gas Research Institute (GRI)

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charges and Staff has made no adjustment in either the 2001/2002 or 2002/2003 ACA related to GRI charges.

It is possible that the MGE discounts for the market area would have been different, but the extent of any changes to market area discounts would be speculation.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

Missouri Public Service Commission

Respond Data Request

Data Request No.	0162
Company Name	Missouri Gas Energy-(Gas)
Case/Tracking No.	GR-2003-0330
Date Requested	1/6/2006
Issue	Expense - Purchased Gas
Requested From	Mike Noack
Requested By	Lesa Jenkins
Brief Description	DR regarding Direct Testimony of John J. Reed, page 22, lines 10-15
Description	Mr. Reed's Direct Testimony, page 22, lines 10-15, states, "Second, when I conducted an independent demand/supply analysis for the 2001/2002 and 2002/2003 ACA periods....the analysis produced results that were not materially different than the analysis produced by MGE in its reliability reports fore the 2001/2002 and 2002/2003 ACA periods." (a) Please confirm that the "independent demand/supply analysis" was conducted by Mr. Reed. (b) Please provide the referenced "independent demand/supply analysis" and all supporting material and data that Mr. Reed relied upon. Please provide this information in electronic form with formulas intact. (c) What date or dates was this analysis conducted? If an exact data is not known, please provide the estimated dates that the analysis took place.
Response	(a) The independent demand/supply analysis was conducted by Mr. Ketchum and Mr. Stephens under the direction of Mr. Reed. (b) The independent demand/supply analysis is described on page 22 through page 37 of Mr. Reed's direct testimony; the results are shown on Mr. Reed's schedule JJR-8. The supporting material and data are provided in the attached files. (c) The demand/supply analysis was conducted in the Fall of 2005 prior to the submission of Mr. Reed's testimony.
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2003-0330** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Missouri Gas Energy-(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person (s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Missouri Gas Energy-(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

With Proprietary and Highly Confidential Data Requests a Protective Order must be on file.

Schedule 1

Missouri Public Service Commission

Respond Data Request

Data Request No.	0164
Company Name	Missouri Gas Energy-(Gas)
Case/Tracking No.	GR-2003-0330
Date Requested	1/6/2006
Issue	Expense - Purchased Gas
Requested From	Mike Noack
Requested By	Lesa Jenkins
Brief Description	DR regarding Direct Testimony of John J. Reed, page 24, lines 2-12
Description	(a) Please provide the CEA "probabilistic approach" utilized to calculate design day weather as referenced by Mr. Reed in his Direct Testimony, page 27, lines 16-18. Please provide the analysis and all supporting material and data in electronic form with formulas intact. (b) Please identify the person(s) who conducted this analysis.
Response	(a) Please see Mr. Reed's direct testimony page 26 line 8 through page 28 line 22 and schedule JJR-4. Also, please see the attached spreadsheet labeled Attachment to DR 164 (a). (b) This analysis was conducted by Mr. Ketchum and Mr. Stephens under the direction of Mr. Reed.
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2003-0330** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Missouri Gas Energy-(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person (s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Missouri Gas Energy-(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

With Proprietary and Highly Confidential Data Requests a Protective Order must be on file.

Schedule 2-1

Kansas City Distribution of Coldest Day per Year for 30 Years 1971/1972 - 2000/2001

SPSS Output

	N	Mean	Std.
	Statistic	Statistic	Statistic
KC HDD	30	64.1577	7.63462

HDD	Probability of Exceeding 1-in-__ Years	Probability of Exceeding % of Years
64.2	2	50%
70.6	5	20%
73.9	10	10%
76.7	20	5%
78.2	30	3.3%
79.1	40	2.5%
79.8	50	2.0%
80.4	60	1.7%
80.9	70	1.4%
81.3	80	1.3%
81.5	**87**	**1.15%**
81.6	90	1.11%
81.8	95	1.05%
81.9	**100**	**1.00%**

Joplin Distribution of Coldest Day per Year for 30 Years 1971/1972 - 2000/2001

SPSS Output

	N	Mean	Std.
	Statistic	Statistic	Statistic
JOP HDD	30	59.0893	7.41076

HDD	Probability of Exceeding 1-in-__ Years	Probability of Exceeding % of Years
59.1	2	50%
65.3	5	20%
68.6	10	10%
71.3	20	5%
72.1	**25**	4%
72.7	30	3.3%
73.6	40	2.5%
74.3	50	2.0%
74.9	60	1.7%
75.3	70	1.4%
75.7	80	1.3%
75.9	87	1.15%
76.0	90	1.11%
76.2	95	1.05%
76.3	**100**	1.00%

Kansas City, Missouri HDDS

Gas Years	KC Peak HDD	KC Peak Date
1971/1972	68.71	1/15/1972
1972/1973	65.99	1/9/1973
1973/1974	71.49	1/1/1974
1974/1975	57.99	1/12/1975
1975/1976	64.99	1/7/1976
1976/1977	70.99	1/9/1977
1977/1978	64.31	3/4/1978
1978/1979	69.99	1/14/1979
1979/1980	62.49	1/31/1980
1980/1981	66.42	2/11/1981
1981/1982	75.99	1/10/1982
1982/1983	53.04	2/4/1983
1983/1984	77.41	12/22/1983
1984/1985	68.49	1/20/1985
1985/1986	61.43	12/18/1985
1986/1987	52.49	1/24/1987
1987/1988	67.76	2/11/1988
1988/1989	66.42	2/3/1989
1989/1990	80.41	12/22/1989
1990/1991	66.92	12/22/1990
1991/1992	50.00	11/7/1991
1992/1993	61.50	2/17/1993
1993/1994	59.00	1/17/1994
1994/1995	59.00	1/4/1995
1995/1996	67.50	2/3/1996
1996/1997	64.00	1/11/1997
1997/1998	56.50	3/11/1998
1998/1999	65.00	1/4/1999
1999/2000	48.50	12/20/1999
2000/2001	60.00	1/1/2001
2001/2002	54.00	3/3/2002

Springfield, Missouri HDD

Gas Years	JOP Peak HDD	JOP Peak Date
1971/1972	58.99	1/15/1972
1972/1973	55.99	1/9/1973
1973/1974	62.50	1/1/1974
1974/1975	50.99	2/9/1975
1975/1976	60.00	1/8/1976
1976/1977	67.00	1/10/1977
1977/1978	66.49	1/17/1978
1978/1979	68.99	1/14/1979
1979/1980	52.48	2/12/1980
1980/1981	64.36	2/11/1981
1981/1982	64.99	1/10/1982
1982/1983	44.06	2/4/1983
1983/1984	70.49	12/24/1983
1984/1985	68.00	1/20/1985
1985/1986	54.99	12/14/1985
1986/1987	49.39	11/13/1986
1987/1988	59.41	2/11/1988
1988/1989	62.43	2/4/1989
1989/1990	71.99	12/22/1989
1990/1991	61.14	12/23/1990
1991/1992	47.00	1/15/1992
1992/1993	58.50	2/18/1993
1993/1994	58.00	1/18/1994
1994/1995	50.50	1/4/1995
1995/1996	64.50	2/3/1996
1996/1997	63.50	1/11/1997
1997/1998	49.50	3/11/1998
1998/1999	59.00	1/4/1999
1999/2000	49.50	1/30/2000
2000/2001	58.00	12/22/2000
2001/2002	54.00	3/3/2002

Missouri Public Service Commission

Respond Data Request

Data Request No.	0167
Company Name	Missouri Gas Energy-(Gas)
Case/Tracking No.	GR-2003-0330
Date Requested	1/6/2006
Issue	Expense - Purchased Gas
Requested From	Mike Noack
Requested By	Lesa Jenkins
Brief Description	DR regarding Direct Testimony of John J. Reed, page 33, lines 6-13.
Description	Mr. Reed's Direct Testimony, page 33, lines 6-13, states, "The primary methodology utilized by LDCs to calculate baseload demand is ... during these months." (a) Please provide the data and analyses that Mr. Reed has conducted or reviewed to support these statements in his direct testimony. (b) Please list the LDCs and the states in which they reside, that Mr. Reed has reviewed to come to this determination in his direct testimony. (c) Please identify which Missouri LDCs Mr. Reed relies upon for the statements made in the referenced testimony.
Response	Please refer to the attached response.
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2003-0330** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Missouri Gas Energy-(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person (s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Missouri Gas Energy-(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

With Proprietary and Highly Confidential Data Requests a Protective Order must be on file.

Schedule 3-1

(a) Please see Mr. Reed's direct testimony page 32.
(b) Mr. Reed has not performed an exhaustive survey of all LDCs but he is aware of at least the following LDCs that use summer month(s) to determine base load:

Company	State
Cascade	Oregon
SEMCO	Michigan
Avista	Idaho
NStar	Massachusetts
PECO Energy	Pennsylvania
Fall River	Massachusetts
PG Energy	Pennsylvania
Delta Natural Gas	Kentucky
Southern Connecticut Gas	Connecticut
Fitchburg Gas and Electric	Massachusetts
North Attleboro Gas Company	Massachusetts
Intermountain Gas	Idaho/Washington

(c) Laclede: see Laclede Gas Website/Technical Resources/Glossary of Terms which states: Baseload – a given sendout of gas which remains fairly constant over a period of time. Baseload demands are not used in calculating space heating requirements since they do not vary with changes in temperature.
Also please see the MGE reliability report submitted in 1996 where the Company states: "The base load is the average use per customer during the summer months when there are no heating degree days."[1] Staff in a 1996 memorandum concluded that MGE's planning process as submitted and including the base load calculation was deemed adequate.[2]

[1] MGE reliability report submitted May 1 1996, P. 2
[2] Staff Recommendation in Case No. GO-96-243, Missouri Gas Energy's Reliability Report, P. 4

Missouri Public Service Commission

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June 28, 1996

Mr. David L. Rauch
Executive Secretary
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102

RE: Case No. GO-96-243 - In the Matter of Missouri Gas Energy's Gas Cost Incentive Mechanism

Dear Mr. Rauch:

Enclosed for filing in the above-captioned case is Staff's Response to Missouri Gas Energy's Gas Supply Reliability Report. Pursuant to the Commission's Order Directing Filing of Gas Supply Reliability Report Under Seal issued May 21, 1996, this response is being filed under seal, with service copies only to MGE and the Office of the Public Counsel.

Thank you for your attention to this matter.

Sincerely yours,

Jeffrey A. Keevil
Deputy General Counsel
(573) 751-8701
(573) 751-9285 (Fax)

Enclosure

23.

X

Jenkins Schedules 4-2 thru 4-7

Are Deemed

Highly Confidential

In Their Entirety