

Exhibit No.:

*Issues: Purchasing Practices;
Reliability Analysis*

Witness: Lesa A. Jenkins

Sponsoring Party: MoPSC Staff

Type of Exhibit: Rebuttal Testimony

*Case Nos.: GR-2001-382, GR-2000-425,
GR-99-304 & GR-98-167
(Consolidated)*

Date Testimony Prepared: March 18, 2003

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

LESA A. JENKINS

MISSOURI GAS ENERGY

**CASE NOS. GR-2001-382, GR-2000-425, GR-99-304 & GR-98-167
(Consolidated)**

*Jefferson City, Missouri
March 2003*

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

NP

Exhibit No. 13 NP
Case No(s). GR-2001-382
Date 5-12-03 **Rptr** KF

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's Purchased Gas)
Adjustment Tariff Revisions to be Reviewed in its) **Case No. GR-2001-382**
2000-2001 Actual Cost Adjustment)

In the Matter of Missouri Gas Energy's Purchased)
Gas Cost Adjustment Factors to be Reviewed) **Case No. GR-2000-425**
in its 1999-2000 Actual Cost Adjustment)

In the Matter of Missouri Gas Energy's Purchased)
Gas Cost Adjustment Factors to be Reviewed) **Case No. GR-99-304**
in its 1998-1999 Actual Cost Adjustment)

In the Matter of Missouri Gas Energy's Purchased)
Gas Cost Adjustment Tariff Revisions to be Reviewed) **Case No. GR-98-167**
in its 1997-1998 Actual Cost Adjustment)

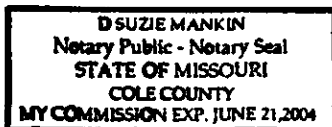
AFFIDAVIT OF LESA A. JENKINS

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 12 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
Lesa A. Jenkins

Subscribed and sworn to before me this 14th day of March 2003.



Suzie Mankin

1
2
3
4
5
6
7
8
9
10

**TABLE OF CONTENTS OF
REBUTTAL TESTIMONY OF
LESA A. JENKINS
MISSOURI GAS ENERGY**

CASE NOS. GR-2001-382, GR-2000-425, GR-99-304, GR-98-167

(CONSOLIDATED)

PURCHASING PRACTICES-STORAGE.....	2
RELIABILITY ANALYSIS.....	12

1
2
3
4
5
6

7
8
9
10
11
12
13
14
15

**LIST OF SCHEDULES OF
REBUTTAL TESTIMONY OF
LESA A. JENKINS
MISSOURI GAS ENERGY
CASE NOS. GR-2001-382, GR-2000-425, GR-99-304, GR-98-167
(CONSOLIDATED)**

- Schedule 1 Storage Withdrawal Information
- Schedule 2 Distribution of Heating Degree Days
- Schedule 3 Variability of Heating Degree Days
- Schedule 4 Comparison of Company Base Case, Low Case, and High Case Usage
Estimates
- Schedule 5 Storage Information from Reliability Reports compared to Distribution of
Normal Heating Degree Days
- Schedule 6 Company Response to Date Request No. 103

1 **REBUTTAL TESTIMONY**

2 **OF**

3 **LESA A. JENKINS**

4 **MISSOURI GAS ENERGY**

5 **CASE NOS. GR-2001-382, GR-2000-425, GR-99-304, GR-98-167**

6 **(CONSOLIDATED)**

7 Q. Please state your name and business address.

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

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

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

12 Q. Are you the same Lesa A. Jenkins who filed direct testimony in the
13 consolidated Case Nos. GR-2001-382, GR-2000-425, GR-99-304, and GR-98-167?

14 A. Yes, I am.

15 Q. What is the purpose of your rebuttal testimony?

16 A. The purpose of my rebuttal testimony is to respond to the direct testimony
17 of Missouri Gas Energy witnesses Michael T. Langston and John J. Reed related to
18 Staff's proposed adjustments for Missouri Gas Energy (MGE or Company), Case
19 Nos. GR-2001-382 and GR-2000-425. My rebuttal testimony is specifically related to
20 "Purchasing Practices-Storage" in Case No. GR-2001-382 and "Reliability Analysis" in Case
21 Nos. GR-2001-382 and GR-2000-425.

PURCHASING PRACTICES-STORAGE

Q. Mr. Langston makes statements that Staff's proposal is fatally flawed because it is based on a calculated first-of-month flowing supplies based on an average monthly demand and that MGE does not base their planned level of monthly flowing supplies on an average monthly demand (Langston direct, p. 48, ll. 6-20 and p.50, ll. 9-19 and p. 54, ll. 14-17). Additionally, Mr. Reed makes similar statements about Staff relying on average monthly demand (Reed direct, p. 18, ll. 10 -23, and p. 19, ll. 1-6). Do you agree with these statements?

A. No. First, it should be clarified that Staff did not calculate the "average monthly demand." These numbers were taken from the Company's Supply/Demand Summary included in the Company responses to DR Nos. 21 and 68, included as Schedules 5 and 6 of my direct testimony. Since these numbers were reasonably close to the base case monthly demand numbers provided in the Company's Reliability Report for 30-year normal weather, Staff accepted the monthly demand numbers in the Company's Supply/Demand Summary for purposes of this evaluation.

Second, it should be clarified that the daily numbers shown on the Company's Supply/Demand Summary for each month are simply the monthly numbers divided by the number of days in the month. Thus, this Company calculation represents average daily demand. The Company number is not a minimum level of daily demand.

Third, it should be noted, that Staff did not plan on flowing supplies equal to the average monthly demand. Staff planned on flowing supplies in November 2000 - January 2001 that covered warmest month's requirements based on the Company's estimates provided in its Reliability Report. Staff understands that some days in the month would actually be warmer, but as noted by the Company, the Company has some flexibility with its

Rebuttal Testimony of
Lesa A. Jenkins

1 storage contracts and actually plans to inject up to ** HC ** MMBtu of natural gas into
2 storage in the month of November.

3 Q. Do you agree with Mr. Langston's assertion (Langston direct, p. 48, ll. 13-16)
4 that the Company planning documents consider the minimum level of daily demand that is
5 projected to occur on each and every day of the month?

6 A. No. A review of past heating degree days would reveal that November can be
7 very warm. In fact, a review of November 1999 Company temperature data shows that
8 twelve of the first fifteen days of November 1999 had average daily temperatures equal to or
9 greater than 65 degrees Fahrenheit. Thus, the heating degree days experienced for days in
10 the month of November can be as low as zero. For days with zero HDD, the Company
11 would expect no heat load that day. Mr. Langston's assertion that only the minimum level of
12 daily demand would be nominated would suggest that base load volumes are all that would
13 be nominated for each day in November. (In general, base load includes natural gas for
14 water heating and cooking, but not for space heating. It would also include natural gas used
15 for processing that is used throughout the year.) According to the July 1, 2000
16 MGE Reliability Report for the period of July 1, 2000 through June 30, 2001, the base load
17 is ** HC ** Dth/day. However, the Company Supply/ Demand Summary lists the
18 "assigned Term Supplies" for November 2000 as ** HC ** Dth/day, which is over twice
19 what would be needed on the warmest days that could be encountered in November. Thus,
20 the Company plans to have more than the minimum level of daily demand that is projected to
21 occur on each and every day of the month.

22 Additionally, the Company has previously noted in its response to DR No.78 that
23 it does not plan to completely fill storage at the end of October so that it can inject up

Rebuttal Testimony of
Lesa A. Jenkins

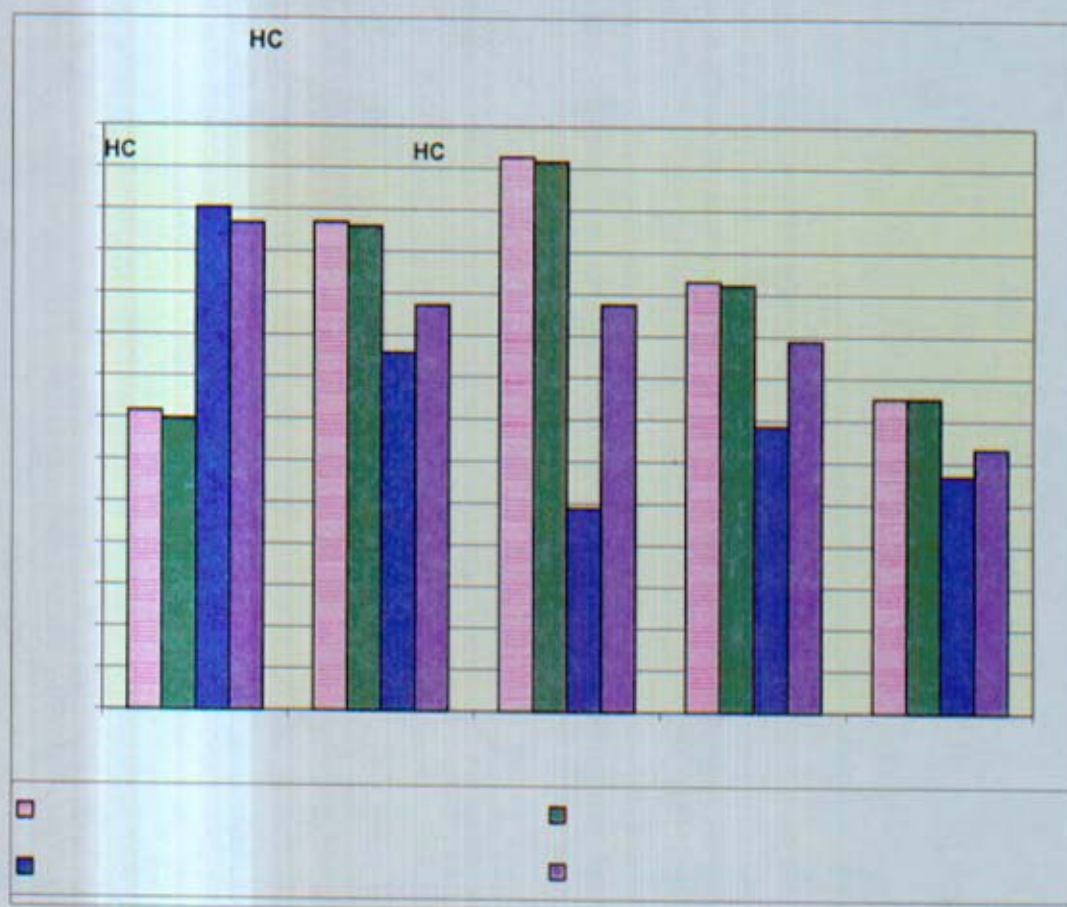
1 to ** HC ** MMBtu into storage "for the very purpose of dealing with warm early
2 November weather." If the Company only planned on flowing supplies in November to
3 cover the minimum level of daily demand that is projected to occur on each and every day of
4 the month, then the Company would not ever plan on injections in November, and this is
5 contrary to the Company's statement in its DR No. 78 response.

6 Q. Do you agree with Mr. Langston's statements (Langston direct, p. 49.
7 ll. 11-20) that Staff's storage withdrawal amount is simply the forecasted monthly demand
8 less the Staff calculated level of first-of-month flowing supplies?

9 A. No. Staff's calculations of the planned natural gas storage withdrawals are
10 shown in Table 3-1 of Schedule 13-2 of my direct testimony. An explanation of Staff's
11 calculation is included in that table. A general explanation of Staff's calculation is that
12 planned storage withdrawals follow the same distribution as the distribution of normal
13 heating degree days. Thus, greater withdrawal of natural gas from storage is planned for the
14 coldest heating season months. The Company and the Staff planned storage withdrawals are
15 shown below. The detail is shown in Schedule 1, attached.

16
17
18 **Remainder of this page intentionally left blank**
19

**



**

Q. If the weather in each month were cold, would this show a similar distribution of heating degree days?

A. Yes. Staff reviewed the heating degree days over the past forty years to determine the coldest month and warmest month. This data was shown in Schedule 7 of my direct testimony. If the coldest months are examined – the coldest November, the coldest December, the coldest January, the coldest February and the coldest March, then the distribution is similar to that for normal heating degree days. This is shown in Schedule 2, attached.

Rebuttal Testimony of
Lesa A. Jenkins

1 Q. If the weather each month were warm, would this show a similar distribution
2 of heating degree days?

3 A. Yes. This distribution is also shown in Schedule 2, attached.

4 Q. Do you agree with Mr. Langston's statements that the month of November
5 represents the most volatile month in terms of heating degree days and thus weather-sensitive
6 demand? (Langston direct, p. 51, ll. 18-23 and p. 52, ll. 1-6 and p. 54, ll. 17-19)

7 A. No. The data examined by Mr. Langston in Schedule MGL-14 of his direct
8 testimony is monthly data, not daily data, and it only covers the time period of November
9 1997 through March 2002. Staff provides a more thorough review of heating degree data in
10 Schedule 3 attached. A review of 30 years of heating degree data reveals that the month of
11 January has both the highest average heating degree days of 1,184.5 and the greatest
12 variability, with a standard deviation of 193.4 compared to the month of November with
13 average heating degree days of 677.2 and a standard deviation of 123.1. A review of the past
14 40 years also shows that the month of January has the greatest variability with a standard
15 deviation of 183.3 compared to 113 for the month of November.

16 Staff also examined Company usage estimates to determine which month had the
17 greatest variability. This review reveals that the greatest variability in usage is for the month
18 of December, followed by the month of January. The standard deviation for December and
19 January is 3,808,178 Dth and 3,083,997 Dth, respectively. The standard deviation for the
20 month of November is 1,776,548 Dth. (The usage information and standard deviation
21 calculation are included in Schedule 4 attached.) Staff previously noted concerns with these
22 usage estimates, as documented in the Staff recommendation and in my direct testimony in

Rebuttal Testimony of
Lesa A. Jenkins

1 Case Nos. GR-2000-382 and GR-2000-425. However, this is information that was known to
2 the Company since the Company prepared it.

3 In summary, Staff cannot support Mr. Langston's assertion that November is the most
4 volatile month.

5 Q. Do you agree with Mr. Langston's comments regarding excess flowing
6 supplies in the month of November? (Langston direct, p. 52, ll. 12-23 and p. 53, ll. 1-23 and
7 p. 54, ll. 1-10)

8 A. No. Staff's usage estimate for warmest November is based on information
9 provided by the Company for November 2000. The estimates would be different for both
10 November 1999 and November 2001. For example, the Company's estimate of usage
11 includes an escalation factor for growth. Thus the estimate for November 1999 would not be
12 at this same level. Additionally, the Company made the comment in the response to
13 DR No. 68, included as Schedule 6 of my direct testimony, that February and March 2001
14 demand was less than expected. This observation should have caused the Company to
15 reevaluate its usage estimates for the upcoming winter, and thus the estimate for
16 November 2001 would not be the same as for November 2000. Thus, a comparison of
17 November 1999 and November 2001 usage to that in November 2000 is not reasonable.

18 Q. Do you agree with the Company's claim that it has used the same storage
19 withdrawal plan as used since the winter of 1998/1999? (Langston direct, p. 55, ll. 15-18 and
20 p. 56, ll. 1-2) (Reed direct, p. 16, ll. 1-8 and p. 17, ll. 4-5 and p. 29, ll. 2-3)

21 A. No. As noted in my direct testimony, a review of recent Reliability Reports,
22 shown in the attached Schedule 5 and in the following chart, illustrates that the planned
23 withdrawal for November 2000 was higher than that shown for November in the previous

three Reliability Reports. For the immediately preceding Reliability Report (1998/1999), MGE planned to withdraw 15.9% of the storage, which is 7.5 percentage points less than the 23.4% planned by MGE for November 2000. It does not make sense to Staff to have the largest planned withdrawal in the winter of 2000/2001 for the month of November 2000, the heating season month with the fewest number of heating degree days. Nor does it make sense for MGE to have increased its planned withdrawals in November 2000 compared to the planned withdrawals for the month of November in the previous years.



10

Rebuttal Testimony of
Lesa A. Jenkins

1 Q. Mr. Langston makes comments about the date that decisions are made in
2 November for December first-of-month supplies. Based on a review of contracts, Staff
3 expected first-of-month decisions to be made on November 22, 2000. However,
4 Mr. Langston comments that decisions were actually made on November 27, 2000.
5 (Langston direct, p. 58, ll. 3-9) Do these comments change Staff's proposed adjustment?

6 A. No. If Staff had been made aware of this change in date, it would have been
7 considered in Staff's review. To get a general idea of how this change would have affected
8 Staff's purchasing practices storage adjustment, Staff reviewed the expected differences in
9 storage balances for these dates – November 22, 2000 and November 27, 2000. In Staff's
10 recommendation, the date of November 22, 2000 was considered. At this date the Company
11 should have known that the storage inventory at the end of November 2000 was expected to
12 be ** HC ** MMBtu and this is 75.1% of the maximum storage quantity, as noted in
13 Table 1, of Schedule 13-1 of my direct testimony. A review of information known as of
14 November 27, 2000 indicates that storage inventory at the end of November 2000 was
15 expected to be ** HC ** MMBtu and this is 71.6% of the maximum storage quantity.
16 The additional information known about storage on November 27, 2000 would have revealed
17 that the Company had used even more storage than planned and thus, the Company should
18 have further increased flowing supplies in December 2000. This change would have resulted
19 in a larger credit in November 2000, but it would have also resulted in a larger charge in
20 December 2000. The overall change in the purchasing practices storage adjustment would
21 not be to the Company's advantage. However, Staff is not proposing an increase to the
22 proposed purchasing practices adjustment at this time.

Rebuttal Testimony of
Lesa A. Jenkins

1 Q. Do you agree with Mr. Langston's reasons for nominating less first-of-month
2 flowing supplies for December 2000? (Langston direct, p. 59, ll. 11-18)

3 A. No. As noted above, the Company had information revealing that
4 the expected natural gas storage inventory resources at the end of November 2000 were
5 expected to be at 71.6% of the maximum storage quantity. Thus approximately 28% of
6 the storage inventory had been used even though four heating season months remained and
7 all four of these months are normally colder than the month of November. As noted in my
8 direct testimony, the Company has constraints on its **HC

9 HC ** and thus storage inventory levels must be of concern to the Company.

10 Specifically, the Company's ** HC

11 HC

12 HC

13 HC

14 HC ** Thus, the Company must manage its storage inventory so that adequate
15 volumes of storage are available for each of the heating season months.

16 Mr. Langston's reasons also included consideration for moderating prices. Staff
17 witness John H. Herbert provides comments about the direction of price levels in
18 pages 10 -14 of his rebuttal testimony. Mr. Herbert's specific comment about the direction of
19 the price level is on page 13, lines 2-5 of his rebuttal testimony.

20 Q. Does Staff agree with Mr. Reed's statements that MGE's use of storage in
21 November and December 2000 was consistent with that of other Local Distribution
22 Companies' (LDC) across the United States? (Reed direct, p. 19, ll. 21-23 and p. 20, ll. 1-16,
23 and p. 21, ll. 1-17)

NP

Rebuttal Testimony of
Lesa A. Jenkins

1 A. No. The various LDCs utilize storage differently.

2 For example, storage contracts can have monthly minimum and maximum
3 withdrawal volumes. Storage service can have a no-notice feature that provides a balancing
4 service that may only have limitations on the maximum daily withdrawal and injection
5 volumes. Storage service can be set up to provide only peaking service, or can be set up to
6 meet a portion of base load requirements.

7 The Company's response to DR No. 103, attached as Schedule 6, indicates that
8 Mr. Reed did not consider contract flexibility or storage constraints in his comparison of
9 MGE to national storage trends. Mr. Reed reviewed storage inventory numbers from the
10 American Gas Association. The data provided by Mr. Reed in response to DR No. 103 does
11 not include information about how these other LDCs planned to utilize their storage
12 resources.

13 In conclusion, each LDC's use of storage must consider the needs of its service area
14 and must consider the constraints and flexibility of its storage resources and other supply
15 resources. Staff does not believe that it is appropriate to simply state that because one LDC
16 made certain decisions, it was prudent for another LDC to make the same or a similar
17 decision. How an LDC uses its storage contracts is a complex issue.

18 Q. Do you agree with the Company's comments that Staff's proposal is based on
19 hindsight review? (Langston direct, p. 60, ll. 5) (Reed direct, p. 17, ll. 9-30 and p. 18, ll. 1-4)

20 A. No. The Staff adjustment reflects its analysis of decisions made by the
21 Company for planned and actual utilization of first-of-month flowing supplies and storage
22 based on information that was known or should have been known at the time the Company
23 made the nomination decisions. Information known or available to the Company is presented

Rebuttal Testimony of
Lesa A. Jenkins

1 in Table 1 of Schedule 13 of my direct testimony. Staff considered this information in
2 evaluating the Company's purchasing practices for this ACA period. Thus, information
3 available to the Company in 2000/2001 indicates that storage was over-utilized early in the
4 heating season and under-utilized in January, February and March 2001 and as a
5 consequence the cost burden on regulated customers was larger than it would have been.

6 Q. Does this conclude your rebuttal testimony for the MGE Purchasing Practices
7 – Storage adjustment?

8 A. Yes, it does.

9 **RELIABILITY ANALYSIS**

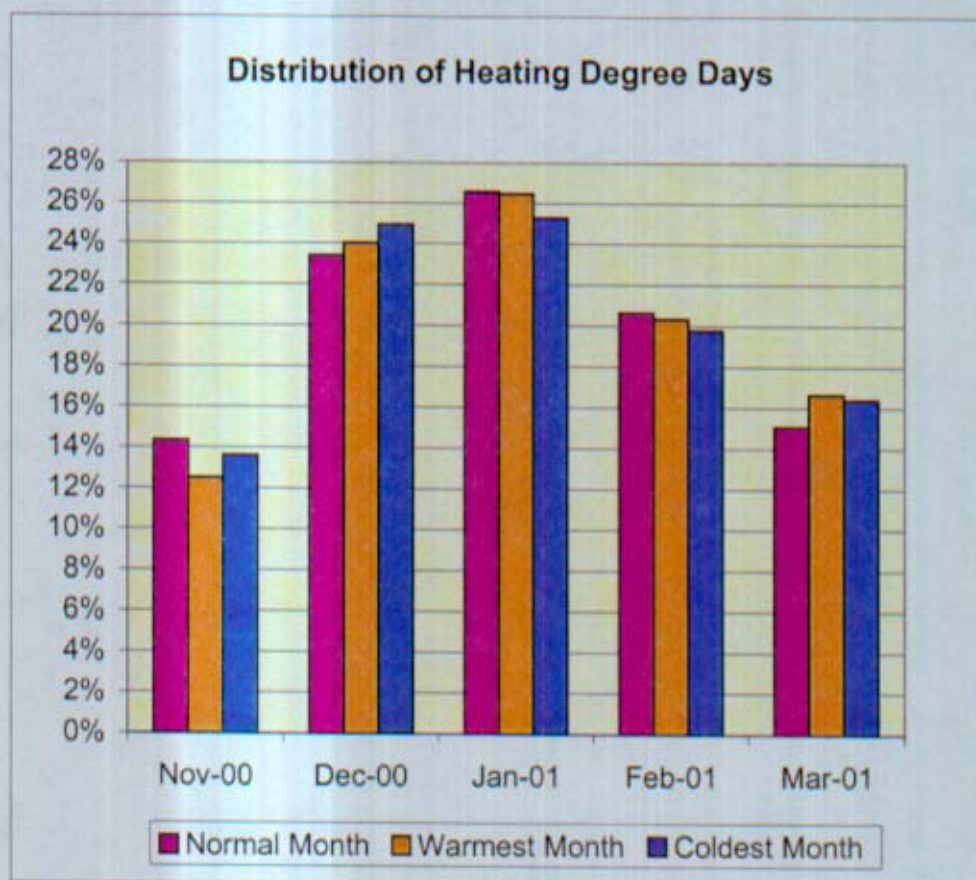
10 Q. Do you agree with Mr. Langston's comments that all issues related to Staff's
11 concerns with the MGE reliability information should have been adequately dealt with by
12 MGE's July 1, 2002 Reliability Report? (Langston direct, p. 60, ll. 18-19)

13 A. No. As explained in my direct testimony, the Company's July 1, 2002
14 Reliability Report addressed some, but not all of the Staff concerns. Concerns not properly
15 addressed are included in my direct testimony, page 27-28.

16 Q. Does this conclude your rebuttal testimony for the MGE Reliability Analysis?

17 A. Yes, it does.

Schedule 1
Has Been Deemed
Highly Confidential
In Its Entirety



Heating Degree Days			
Month	Warmest Month	Coldest Month	Normal Month
Nov-00	398	877	657
Dec-00	763	1,606	1,073
Jan-01	841	1,629	1,218
Feb-01	646	1,274	946
Mar-01	529	1,057	691
	3,177	6,443	4,585

Distribution of Heating Degree Days			
Month	Warmest Month	Coldest Month	Normal Month
Nov-00	12.5%	13.6%	14.3%
Dec-00	24.0%	24.9%	23.4%
Jan-01	26.5%	25.3%	26.6%
Feb-01	20.3%	19.8%	20.6%
Mar-01	16.7%	16.4%	15.1%
	100.0%	100.0%	100.0%

Missouri Gas Energy, Case Number GR-2001-382
Variability of Heating Degree Days

YEAR	NOV	DEC	JAN	FEB	MAR	Total Winter HDD
1961/1962	715	1,252	1,386	924	876	5,153
1962/1963	642	1,056	1,482	988	561	4,729
1963/1964	558	1,335	981	934	801	4,609
1964/1965	556	1,111	1,135	998	1,057	4,857
1965/1966	556	763	1,283	935	563	4,100
1966/1967	591	1,052	1,093	959	587	4,282
1967/1968	697	976	1,232	993	560	4,458
1968/1969	748	1,142	1,257	937	894	4,978
1969/1970	651	1,107	1,344	847	823	4,772
1970/1971	739	928	1,296	1,043	764	4,770
1971/1972	625	933	1,228	989	635	4,410
1972/1973	768	1,164	1,169	875	537	4,513
1973/1974	591	1,084	1,278	832	565	4,350
1974/1975	672	1,017	1,090	1,043	885	4,707
1975/1976	579	961	1,162	646	623	3,971
1976/1977	877	1,115	1,534	840	529	4,895
1977/1978	687	1,101	1,495	1,274	854	5,411
1978/1979	631	1,056	1,629	1,235	706	5,257
1979/1980	728	927	1,126	1,155	816	4,752
1980/1981	615	1,019	1,076	887	615	4,212
1981/1982	581	1,118	1,439	1,043	698	4,879
1982/1983	696	916	1,084	817	683	4,196
1983/1984	623	1,606	1,242	757	901	5,129
1984/1985	634	916	1,438	1,111	547	4,646
1985/1986	847	1,306	947	969	536	4,605
1986/1987	813	947	1,095	718	556	4,129
1987/1988	559	929	1,187	1,076	676	4,427
1988/1989	606	924	847	1,182	666	4,225
1989/1990	681	1,362	841	807	606	4,297
1990/1991	458	1,109	1,307	717	561	4,152
1991/1992	850	896	905	733	564	3,948
1992/1993	780	996	1,213	1,019	784	4,792
1993/1994	768	945	1,236	980	589	4,518
1994/1995	561	886	1,143	815	619	4,024
1995/1996	750	1,051	1,299	894	848	4,842
1996/1997	842	1,096	1,260	873	610	4,681
1997/1998	731	978	967	666	814	4,156
1998/1999	512	938	1,156	666	696	3,968
1999/2000	398	906	1,032	701	559	3,596
2000/2001	853	1,425	1,111	982	777	5,148
Review of 40 years of HDD data						
Average	669.2	1,058.7	1,200.6	921.5	688.5	4,538.6
Standard Deviation	113.2	167.9	183.3	156.3	134.8	413.0
Review of 30 years of HDD data						
Average	677.2	1,054.2	1,184.5	910.1	668.5	4,494.5
Standard Deviation	123.1	172.4	193.4	177.2	115.7	435.8

Schedule 4
Has Been Deemed
Highly Confidential
In Its Entirety

Schedule 5
Has Been Deemed
Highly Confidential
In Its Entirety

MISSOURI GAS ENERGY
A Division of Southern Union Company

**MISSOURI PUBLIC SERVICE COMMISSION
DATA INFORMATION REQUEST RESPONSE**

Case No: GR-2001-382

Data Request No: 103

Requested From: Mike Noack

Date Requested: February 4, 2003

Information Requested: On pages 19 - 21 of Mr. Reed's Direct Testimony, he compares national storage withdrawal trends to MGE's actual storage withdrawal for the winter of 2000/2001.

- a. Please explain how Mr. Reed considered the contract flexibility and storage constraints of MGE and those of other LDCs in making this comparison.
- b. Please explain how Mr. Reed considered storage inventory levels at the start of the heating season for MGE and the levels for other LDCs in this comparison.
- c. Please provide copies of all information reviewed by Mr. Reed in making this comparison.

Requested By: Anne Allee and Lesa Jenkins

Information Provided:

- a. As noted on pages 19-21 of Mr. Reed's direct testimony, a comparison was made between the national storage trend for November and December 2000 and MGE's storage trend for that same time period. Therefore, contract flexibility and storage constraints were not directly addressed in this comparison.
- b. Based on the storage inventory information issued by the American Gas Association and referenced in Mr. Reed's direct testimony, the storage inventory for the production and market areas was 8% below the historical average entering the winter of 2000/2001. If only the market area storage is evaluated, storage inventory entering the winter of 2000/2001 was only 4% below the historical average. Therefore, while MGE's storage was full entering the winter of 2000/2001, Mr. Reed did not consider this difference to be material and continues to believe that MGE's utilization of its storage in November and December 2000 was consistent with the storage utilization trend experienced in the United States in those months.
- c. Please see the information on the attached diskette.

Date Response Received: 2/24/03

Signed By: Mike Noack

Date: 2/23/03