

**Exhibit No:**  
**Issue:** **Weather Normalization,  
Customer Annualization,  
Large Volume Rate Shifts  
and Customer Losses**

**Witness:** **F. Jay Cummings**  
**Type of Exhibit:** **Direct Testimony**  
**Sponsoring Party:** **Missouri Gas Energy, a  
Division of Laclede Gas  
Company**

**Case No.:** **GR-2014-0007**  
**Date Prepared:** **September 16, 2013**

**MISSOURI GAS ENERGY**

**GR-2014-0007**

**DIRECT TESTIMONY**

**OF**

**F. JAY CUMMINGS**

**September 16, 2013**

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## EXHIBITS

Schedule FJC-1	Large General Service Weather Normalization Adjustment, Test Year Ended April 30, 2013
Schedule FJC-2	Large Volume Service Weather Normalization Adjustment, Test Year Ended April 30, 2013
Schedule FJC-3	Customer Count History by Rate Schedule and Area – 12-Month Rolling Average, Test Year Ended April 30, 2013
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Schedule FJC-5	General Service to Large Volume Service Rate Switching and Large Volume Service Customer Loss Adjustments, Test Year Ended April 30, 2013

**DIRECT TESTIMONY OF F. JAY CUMMINGS**

**CASE NO. GR-2014-0007**

**SEPTEMBER 13, 2013**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is F. Jay Cummings. My business address is 3625 North Hall Street,  
3 Suite 750, Dallas, Texas 75219.

4

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am a Senior Economist with Ruhter & Reynolds, Inc., Consulting Economists.

7

8 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND EXPERIENCE.**

9 A. I have a B.A. degree with a major in economics from Colgate University and a  
10 Ph.D. in economics from the University of Virginia. I have more than 28 years of  
11 utility regulatory experience gained through private and public sector positions.  
12 Since 2001, I have provided regulatory support services to the energy industry as a  
13 Senior Economist with Ruhter & Reynolds (2005 - present), an Executive  
14 Consultant with R. J. Covington Consulting, LLC (2003 - 2005), and as a Principal  
15 with Navigant Consulting, Inc. (2001 - 2003). Prior to Navigant Consulting, I was  
16 employed by Southern Union Company for more than 11 years. I joined Southern  
17 Union as Southern Union Gas' Director of Rates and Regulatory Affairs and  
18 became Vice President later that year. When my regulatory responsibilities for  
19 Southern Union expanded to include its Missouri properties in 1994, I became Vice

1           President, Pricing and Economic Analysis, a position I held until leaving Southern  
2           Union in 2001.

3  
4           Prior to joining Southern Union, I was employed by the Arizona Corporation  
5           Commission for six years. I held positions as the Utilities Division Assistant  
6           Director (1988 - 1991); Chief, Economics and Research Section (1985 - 1988); and  
7           Chief, Economics and Rates Section (1985). My work with the Arizona  
8           Corporation Commission covered regulation of electric, gas, telecommunications  
9           and water utilities.

10  
11          From 1973 through 1985, I was on the economics faculties of George Mason  
12          University (1973 - 1975) and the University of Texas at Dallas (1975 - 1985). My  
13          teaching and research focused on applied microeconomic analyses, which resulted  
14          in professional journal publications and conference and seminar presentations. I  
15          have submitted testimony in regulatory proceedings in Arizona, Arkansas,  
16          Massachusetts, Missouri, Oklahoma, Texas, and Washington. I have submitted  
17          testimony on behalf of Missouri Gas Energy (“MGE” or “Company”) in six MGE  
18          rate cases before the Missouri Public Service Commission (“Commission”).<sup>1</sup>

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<sup>1</sup> Case Nos. GR-2009-0355, GR-2004-0209, GR-2001-0292, GR-98-140, GR-96-285, and GR-94-318.

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**1. PURPOSE AND SUMMARY OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. I have been retained by MGE to prepare the following volume and revenue adjustments based on the test year ended April 30, 2013: (1) weather normalization adjustments for the Large General Service (“LGS”) and Large Volume Service (“LVS”) classes, (2) customer annualization adjustments for the Residential (“RES”), Small General Service (“SGS”), and LGS classes, and (3) adjustments for rate shifting from SGS and LGS to LVS and for LVS customer losses.

**Q. HAVE YOU PREVIOUSLY PREPARED THESE TYPES OF TEST YEAR RATE CASE REVENUE ADJUSTMENTS?**

A. Yes. I have prepared these types of revenue adjustments in prior MGE rate cases before the Commission and for various gas distribution utilities in a number of rate cases before state and local regulatory authorities in Arkansas, Oklahoma, and Texas.

**Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.**

A. The weather normalization adjustments result in the following volume (in Ccf) and associated revenue adjustments to the test year:

<u>Customer Class</u>	<u>Ccf</u>	<u>Dollars</u>
LGS	2,975,601	\$377,529
LVS	1,025,050	60,575

The customer annualization adjustment results in the following annual bill count, volume, and revenue adjustments to the test year:

1		Annual		
2	<u>Customer Class</u>	<u>Bill Count</u>	<u>Ccf</u>	<u>Dollars</u>
3	RES	11,868	n.a.	\$ 319,019
4	SGS	( 7,610)	n.a.	(298,751)
5	LGS	( 844)	(1,626,790)	(274,762)

6 The LVS rate switching and customer loss adjustments result in the following  
7 annual bill count, volume, and revenue adjustments to the test year for the SGS,  
8 LGS, and LVS classes:

9		Annual		
10	<u>Customer Class</u>	<u>Bill Count</u>	<u>Ccf</u>	<u>Dollars</u>
11	Rate Switching:			
12	SGS	(3)	n.a.	\$( 118)
13	LGS	(10)	(243,830)	(20,690)
14	LVS	13	336,360	22,713
15	Customer Losses:			
16	LVS	(12)	( 50)	(10,466)
17	LVS-Flex	( 8)	(938,490)	( 7,977)

18 The methods used in calculating each of these adjustments are explained in Sections  
19 2, 3, and 4 of my testimony.

20

21 **2. WEATHER NORMALIZATION**

22

23 **Q. WHAT IS THE PURPOSE OF THE WEATHER NORMALIZATION**  
24 **ADJUSTMENT?**

25 A. The weather normalization adjustment restates test year volumes and associated  
26 volume-dependent revenue for each customer class to reflect volumes and revenue  
27 that would have been experienced if normal weather had occurred during the test  
28 year. If the test year weather is warmer than normal, these adjustments add  
29 volumes and revenues to those recorded in the test year. If the test year weather is

1 colder than normal, these adjustments reduce test year recorded volumes and  
2 revenues.

3  
4 In this case, revenue normalization adjustments are made for the LGS and LVS  
5 classes. The LGS and LVS adjustments are developed for each of the three  
6 geographic areas MGE serves: Kansas City, St. Joseph, and Joplin.

7  
8 RES and SGS weather normalization adjustments are not required for adjusting test  
9 year revenue (used to determine the required revenue deficiency) and for adjusting  
10 test year volumes (used to determine volumes to design rates to collect the revenue  
11 requirement) because base rates for each of these classes collect non-gas costs  
12 through a fixed, non-volume dependent monthly charge.

13

14 **Q. WHAT MEASURE OF NORMAL WEATHER DO YOU USE FOR THE**  
15 **ADJUSTMENTS?**

16 A. In prior MGE rate cases, the Commission Staff has used National Oceanographic  
17 and Atmospheric Administration (“NOAA”) 30-year daily normal HDDs, updated  
18 each decade. The Staff has used Kansas City International Airport (Station 234358)  
19 weather data for the weather adjustment calculations for Kansas City and St.  
20 Joseph, and Springfield Regional Airport (Station 237976) weather data for Joplin  
21 adjustments. In MGE’s last rate case, Case No. GR-2009-0355, annual NOAA  
22 normals were for the 1971-2000 period.

1 For the purpose of this rate proceeding, I apply the most recently published NOAA  
2 30-year normal daily HDDs for the Kansas City International Airport to Kansas  
3 City and St. Joseph customers and for the Springfield Regional Airport to Joplin  
4 customers to develop the weather adjustments.<sup>2</sup> These daily NOAA normals are for  
5 the 1981-2010 period. Based on these NOAA daily normals, Kansas City and  
6 Springfield weather was warmer than normal for the test year ended April 30, 2013,  
7 especially in Springfield.

8

9 While I do not consider a 30-year period that ended three years ago to be the most  
10 appropriate measure of normal weather for ratemaking purposes, it is acceptable to  
11 use such a normal for this sole purpose given the relatively modest amount of  
12 revenue at issue with these customer classes and our desire to remove the weather  
13 normalization period as a contested issue in this rate case.

14

15 **Q. PLEASE EXPLAIN THE WEATHER NORMALIZATION ADJUSTMENT**  
16 **METHOD.**

17 A. Weather-related volume adjustments for each class and area are based on statistical  
18 relationships between bill volumes (measured in Ccfs) and temperatures (measured  
19 by HDDs) determined through regression analyses as follows:

20

$$\text{Ccf/bill} = a + b \text{ HDD},$$

21

where a and b are estimated based on the per bill Ccf and HDD data included in the  
22 regression. The estimated HDD coefficient, *i.e.*, b, provides the measure of weather

---

<sup>2</sup> The NOAA daily normal HDDs are available on NOAA's website. The applicable Kansas City and Springfield data are available at <http://www1.ncdc.noaa.gov/pub/orders/cdo/185172.csv> (accessed on August 2, 2013).



1 sensitivity, namely, the change in per bill Ccf usage due to each HDD change. The  
2 regression results are considered reliable, *i.e.*, statistically significant, if HDD  
3 variations explain at least 60 percent of the variation in per bill Ccf usage and if the  
4 HDD coefficient is statistically significant with at least a 90 percent probability.<sup>3</sup>  
5 Any regression that meets these criteria produces reliable, statistically significant  
6 results and is included in the weather adjustment calculation. Any regression that  
7 does not meet these criteria is excluded from the weather adjustment calculation.

8  
9 . Based on the weather sensitive regressions results, differences between the per bill  
10 volumes statistically explained with normal HDDs and per bill volumes explained  
11 with actual HDDs are multiplied by the number of bills in the class in the applicable  
12 time period to determine the volume adjustments due to abnormal weather. These  
13 volume adjustments are priced at current rates to arrive at the associated test year  
14 revenue adjustments. Because weather over the course of the test year was warmer  
15 than the measure of normal weather used for the weather adjustments in this rate  
16 case, the adjustments result in additions to test year volumes and revenue for the  
17 LGS and LVS classes.

18  
19 **Q. PLEASE EXPLAIN THE CALCULATION OF THE LARGE GENERAL**  
20 **SERVICE WEATHER ADJUSTMENT.**

21 A. For the LGS class, separate statistical relationships are developed for the test year  
22 for each billing cycle in each of three geographic areas (Kansas City, St. Joseph,

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<sup>3</sup> Stated in statistical terms, these conditions require that a regression produce an R<sup>2</sup> of at least 0.60 and a t-statistic for the HDD variable that has a P-value of 0.1 or less.

1 and Joplin). In total, regression analyses are conducted on test year data for 50  
2 billing cycles for LGS customers. All 50 of these regressions contained statistically  
3 significant results that are included in the weather adjustment calculation.<sup>4</sup>

4  
5 The total volume adjustments are priced at the current LGS rates to determine the  
6 test year revenue adjustment. Current LGS rates vary seasonally, with higher Ccf  
7 rates in the months of November through March and lower rates in the months of  
8 April through October. The resulting volume and revenue adjustment by area and  
9 in total are provided in Schedule FJC-1. The seasonal volume differences result  
10 from somewhat colder than normal weather in Kansas City in April through  
11 October, warmer than normal weather in Kansas City in November through March,  
12 and warmer than normal weather in Springfield (applied in Joplin) in both seasons.

13  
14 **Q. PLEASE DESCRIBE THE LARGE VOLUME SERVICE WEATHER**  
15 **NORMALIZATION ADJUSTMENT.**

16 A. The LVS class consists of customers with diverse weather sensitivities, from those  
17 with no weather sensitivity, such as certain manufacturing or construction  
18 companies, to those that are weather sensitive, such as hotels and educational  
19 facilities. Substantial differences in the load responsiveness to HDD changes may  
20 also occur among weather-sensitive LVS customers.

---

<sup>4</sup> LGS customers are billed through 22 billing cycles in Kansas City, 21 billing cycles in Joplin, and 7 billing cycles in St. Joseph.

1 For these reasons, the LVS weather normalization adjustment is based on individual  
2 customer analyses. For each LVS customer, regression analyses are conducted  
3 based on the customer's test year usage, *i.e.*, May 2012 – April 2013, and based on  
4 the customer's usage over the period January 2008 – April 2013.<sup>5</sup> Analyses based  
5 on a longer period of usage are included in the event that the test year usage  
6 contains one or two anomalous months that misstates or disguises the customer's  
7 weather sensitivity. For each customer who is weather sensitive, the weather  
8 adjustment is calculated based on the regression result that explains the greatest  
9 variation in Ccf usage due to HDD variations.

10  
11 For the LVS class, 75 percent of the customers show statistically significant  
12 weather sensitivity and are included in the weather adjustment calculations. Among  
13 the weather sensitive customers, the test year regression results are used for 92  
14 percent of these customers, while the longer-term regressions results are applied for  
15 8 percent of the customers.

16  
17 For each weather sensitive customer, the calculated volume adjustment is priced at  
18 current LVS rates. These rates vary seasonally (with higher Ccf rates in the months  
19 of November through March and lower rates in the months of April through  
20 October) and by rate block (with higher rates for the first 30,000 Ccf and lower  
21 rates for usage in excess of 30,000 Ccf).

---

<sup>5</sup> If a customer became an LVS customer after January 2008, the longer period regression analysis begins with the month in which the customer became an LVS customer.

1 Schedule FJC-2 provides a summary of the LVS weather normalization adjustment.  
2 All LVS customers are billed on billing cycle 41. The differences in the seasonal  
3 volumes adjustments are consistent with Kansas City weather that was about 11  
4 percent colder than normal in April through October and about three percent  
5 warmer than normal in November through March for billing cycle 41. By contrast,  
6 Springfield weather (used in Joplin) was warmer than normal in both seasons for  
7 billing cycle 41.

8

9 **3. CUSTOMER ANNUALIZATION**

10

11 **Q. WHAT IS THE PURPOSE OF THE CUSTOMER ANNUALIZATION**  
12 **ADJUSTMENT?**

13 A. The purpose of this adjustment for a customer class is to restate the number of test  
14 year bills for the RES, SGS, and LGS classes to reflect customer growth -- either  
15 positive or negative -- that occurred during the test year.

16

17 **Q. DID YOU EXAMINE THE HISTORICAL CUSTOMER GROWTH**  
18 **PATTERNS FOR THE RESIDENTIAL, SMALL GENERAL SERVICE,**  
19 **AND LARGE GENERAL SERVICE CLASSES IN DEVELOPING YOUR**  
20 **ADJUSTMENTS?**

21 A. Yes. For background purposes, I reviewed the last ten years of monthly customer  
22 count data ending April 2013 for the RES, SGS, and LGS customer classes. To  
23 take into account the seasonality of customer counts over the course of a year, I  
24 analyzed 12-month rolling averages of customer counts to examine customer

1 growth patterns. The May 2003 through April 2013 customer count data provide  
2 nine years of 12-month rolling average data to examine customer growth patterns.

3

4 **Q. PLEASE DESCRIBE THE RESIDENTIAL CUSTOMER GROWTH**  
5 **PATTERNS OVER THIS TEN-YEAR PERIOD.**

6 A. Based on comparisons of the customer counts for years ending in April, positive  
7 RES customer growth occurred in Kansas City, St. Joseph, and Joplin through April  
8 2008. After April 2008, negative RES customer growth began in each of the three  
9 areas. This negative growth continued in Kansas City until October 2012 and in  
10 Joplin until June 2012, after which some positive growth returned. As a result of  
11 the late-May 2011 tornado, the Joplin RES class showed an especially sharp decline  
12 from the year ended June 2011 until the year ended May 2012. After these points  
13 in time, modest growth, *i.e.*, increases in 12-month rolling average customer counts,  
14 occurred in both Joplin and Kansas City. By contrast, the St. Joseph RES class  
15 showed continuing negative growth after April 2008, although there was some  
16 slowing, on average, in the negative growth in the May 2012 through April 2013  
17 period. In focusing on the later part of the period, Schedule FJC-3, page 1 shows  
18 these patterns graphically for the last five years, or for the April 2008 – April 2013  
19 period.

20

21 **Q. PLEASE DESCRIBE THE SMALL GENERAL SERVICE CUSTOMER**  
22 **GROWTH PATTERNS OVER THIS TEN-YEAR PERIOD.**

23 A. Based on comparisons of the customer counts for years ending in April, the SGS  
24 class has generally shown negative growth in each area throughout the period. For

1 the year ended April 2011, there was a particularly sharp decline in each area  
2 compared to the prior year. Much of this negative growth was caused by a number  
3 of SGS customers moving to the LGS class in April and May 2010 with the  
4 reduced LGS minimum usage threshold requirement that became effective with the  
5 Commission's Order in Case No. GR-2009-0355.

6  
7 While the SGS class shows a generally declining customer base over the entire  
8 period, there were several times when positive growth briefly occurred in Kansas  
9 City and Joplin. The SGS class had some positive growth in the years ended April  
10 2006 and April 2007 in each area. The SGS class also showed small positive  
11 growth in the year ended April 2012 in Kansas City and in the year ended April  
12 2013 in Joplin. By contrast, the St. Joseph SGS class showed a continually  
13 declining SGS customer base throughout the ten-year period, although the rate of  
14 decline lessened somewhat in the year ended April 2013 compared to prior years.  
15 In focusing on the later part of the period, Schedule FJC-3, page 2 shows these  
16 patterns graphically for last five years, or for the April 2008 – April 2013 period.

17

18 **Q. PLEASE DESCRIBE THE LARGE GENERAL SERVICE CUSTOMER**  
19 **GROWTH PATTERNS OVER THIS TEN-YEAR PERIOD.**

20 A. Over the seven-year period from May 2003 through April 2010, the LGS class  
21 showed a continually declining customer base in Kansas City and a relatively  
22 constant customer base in Joplin and St. Joseph. With the reduced LGS minimum  
23 usage threshold that became effective with the Commission's Order in Case No.  
24 GR-2009-0355, the LGS customer base increased about ten-fold by May 2010 in

1 each of the areas as former SGS customers shifted to the LGS class. The full  
2 impact of this customer shift is reflected in the 12-month rolling average beginning  
3 in April 2011. More recently, the LGS customer base in each area has been  
4 declining, since late 2011 in Kansas City and early 2012 in Joplin and St. Joseph.  
5 In focusing on recent years, Schedule FJC-3, page 3 shows these patterns  
6 graphically for last three years, or for the April 2011 – April 2013 period.

7

8 **Q. PLEASE EXPLAIN HOW THE CUSTOMER ANNUALIZATION**  
9 **ADJUSTMENTS ARE CALCULATED.**

10 A. For each geographic area and each customer class, the difference between the  
11 average monthly customer count for the year ended April 2013 and the average  
12 monthly customer count for the year ended April 2012, *i.e.*, ending the month  
13 before the test year began, is calculated. This average monthly count change is  
14 then annualized to determine the change in the annual number of customers served  
15 during the test year ended April 2013.

16

17 The corresponding revenue adjustment due to customer annualization is based on  
18 the current fixed monthly charge for each class and on the current volumetric rates  
19 for the LGS class. For the LGS class in each area, Ccf usage changes in each  
20 month of the test year are calculated based on the customer count change in each  
21 month and the weather normalized usage per customer in that month. The volume  
22 changes in each month are priced at the current LGS seasonal rates. The volumetric  
23 revenue change is added to the fixed charge revenue change to determine the LGS  
24 customer annualization revenue adjustment. Volume changes due to customer

1 count changes are not needed for the RES and SGS class customer annualization  
2 adjustments because the rate designs for, and base revenue derived from, these  
3 classes is not dependent on Ccf usage.

4  
5 Based on Schedule FJC-3, one would expect positive RES adjustments in Kansas  
6 City and Joplin, a negative RES adjustment for St. Joseph, negative SGS  
7 adjustments in Kansas City and St. Joseph, a positive SGS adjustment in Joplin, and  
8 negative LGS adjustments in each of the three areas. Consistent with each of these  
9 expectations, Schedule FJC-4 provides a summary by class and geographic area of  
10 the customer annualization adjustments for the RES, SGS, and LGS classes.

11

12 **4. CUSTOMER SHIFTS TO LARGE VOLUME SERVICE AND LARGE**  
13 **VOLUME SERVICE CUSTOMER LOSSES**

14

15 **Q. PLEASE EXPLAIN THE ADJUSTMENT FOR THE CUSTOMER SHIFTS**  
16 **TO LARGE VOLUME SERVICE.**

17 A. This adjustment pertains to two LGS customers and one SGS customer who shifted  
18 to LVS during the test year. As continuing LVS customers, the adjustment reflects  
19 volumes and revenue as if the three customers were LVS customers for the entire  
20 test year. This is accomplished by shifting their bills and usage when they were  
21 LGS (or SGS) customers to LVS and repricing the bills and usage at LVS rates. As  
22 shown in the top portion of Schedule FJC-5, the adjustment reduces the number of  
23 SGS bills and revenue (based on the SGS fixed monthly charge) and the number of  
24 LGS bills, volumes, and revenue (based on the LGS fixed monthly charge and the  
25 seasonal LGS volumetric rates). In shifting these bills and volumes to LVS, the



1 adjustment increases the number of LVS bills, LVS volumes, and revenue (based  
2 on the LVS fixed monthly charge and the seasonal LVS blocked volumetric rates).

3

4 **Q. PLEASE EXPLAIN THE ADJUSTMENT FOR LARGE VOLUME**  
5 **SERVICE CUSTOMER LOSSES.**

6 A. The purpose of this adjustment is to remove volumes and revenue associated with  
7 LVS customers who have discontinued gas service. In December 2012, one LVS  
8 customer -- a flex rate customer -- ceased operations. In July 2013, a standard LVS  
9 customer discontinued gas service. While slightly beyond the April 2013 test year  
10 end, the loss of the latter customer is recognized as a known and measurable  
11 change. The bottom portion of Schedule FJC-5 shows the number of bills,  
12 volumes, and revenues that are removed from the test year for LVS as a result of  
13 the loss of these two customers.

14

15 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

16 A. Yes.

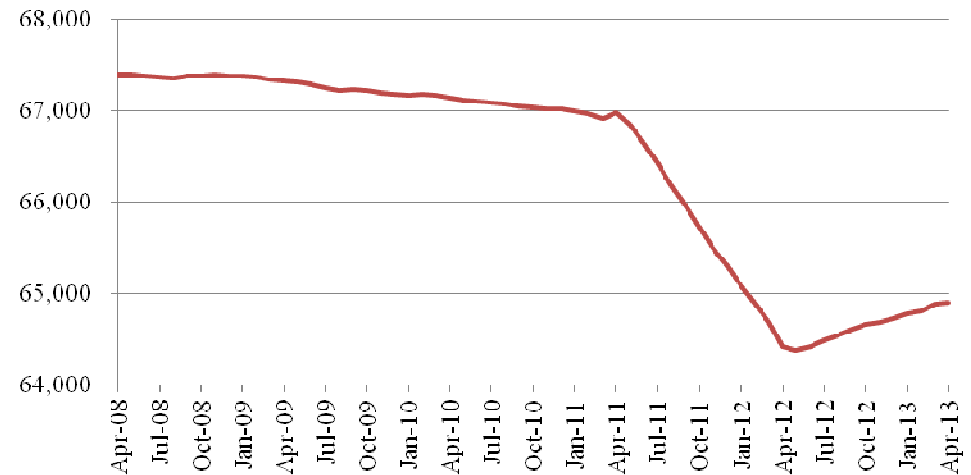
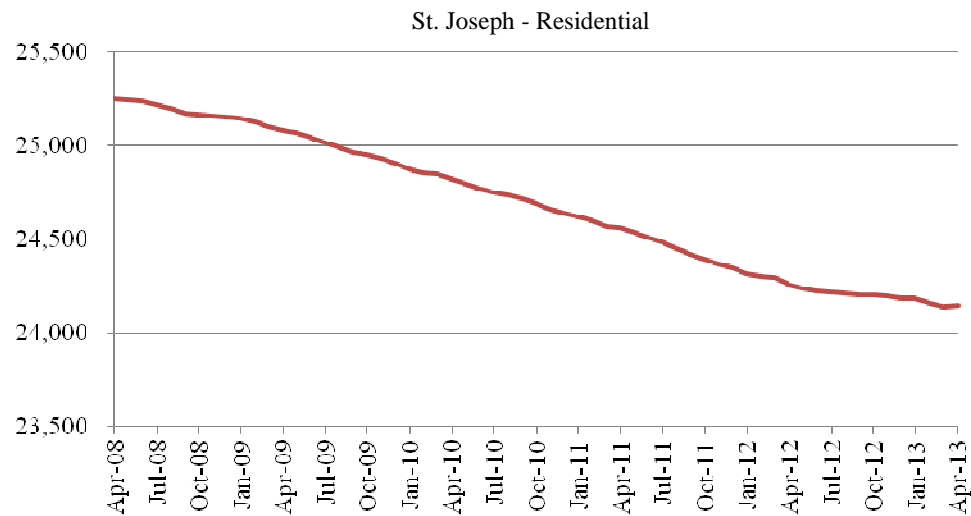
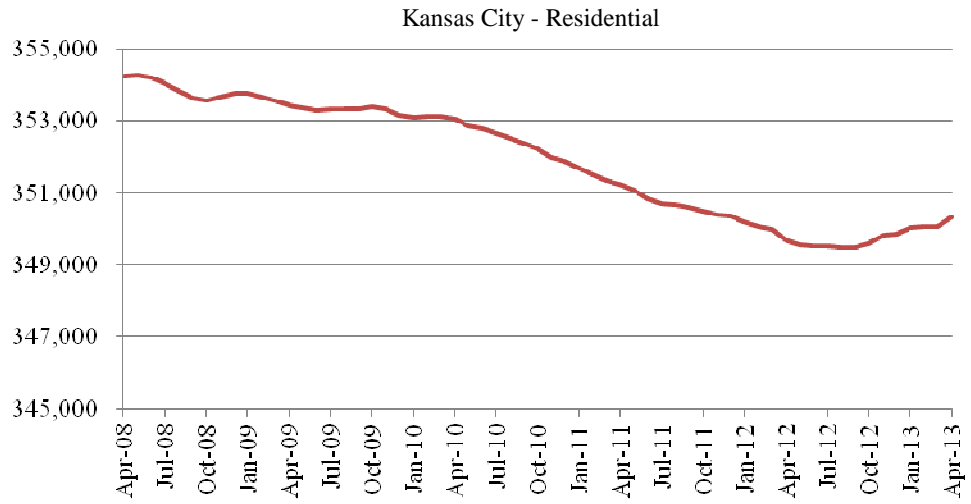
Missouri Gas Energy  
 Large General Service Weather Normalization Adjustment  
 Test Year Ended April 30, 2013

	Volume Adjustment (Ccf)			Dollar Adjustment		
	Nov-Mar	Apr-Oct	Total	Nov-Mar	Apr-Oct	Total
Kansas City	2,035,719	(48,429)	1,987,290	260,531	(3,572)	256,959
St. Joseph	182,398	(22,356)	160,042	23,343	(1,649)	21,694
Joplin	696,840	131,428	828,268	89,182	9,694	98,876
	2,914,957	60,643	2,975,601	\$373,056	\$ 4,473	\$377,529

Missouri Gas Energy  
 Large Volume Service Weather Normalization Adjustment  
 Test Year Ended April 30, 2013

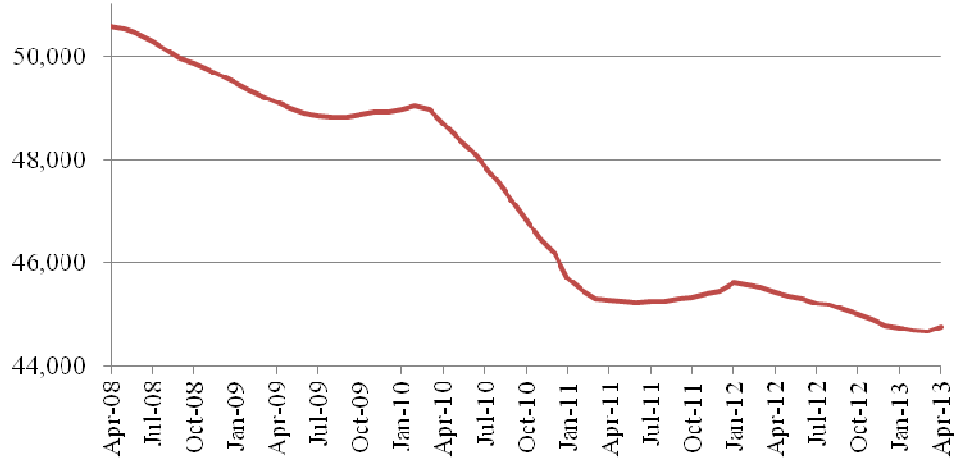
	Volumes (Ccf)		Dollars
	First Block	Second Block	
<b>Kansas City</b>			
Nov-Mar	342,720	744,480	50,375
Oct-Apr	(142,370)	(487,670)	(15,954)
Total	200,350	256,810	\$ 34,422
<b>St. Joseph</b>			
Nov-Mar	12,760	92,020	4,618
Oct-Apr	(3,790)	(56,630)	(1,415)
Total	8,970	35,390	\$ 3,203
<b>Joplin</b>			
Nov-Mar	160,450	291,460	21,150
Oct-Apr	15,060	56,560	1,800
Total	175,510	348,020	\$ 22,950
<b>LVS - All Areas</b>			
Nov-Mar	515,930	1,127,960	76,143
Oct-Apr	(131,100)	(487,740)	(15,568)
Total	384,830	640,220	\$ 60,575

Missouri Gas Energy  
Customer Count History by Rate Schedule and Area - 12-Month Rolling Average  
Test Year Ended April 30, 2013

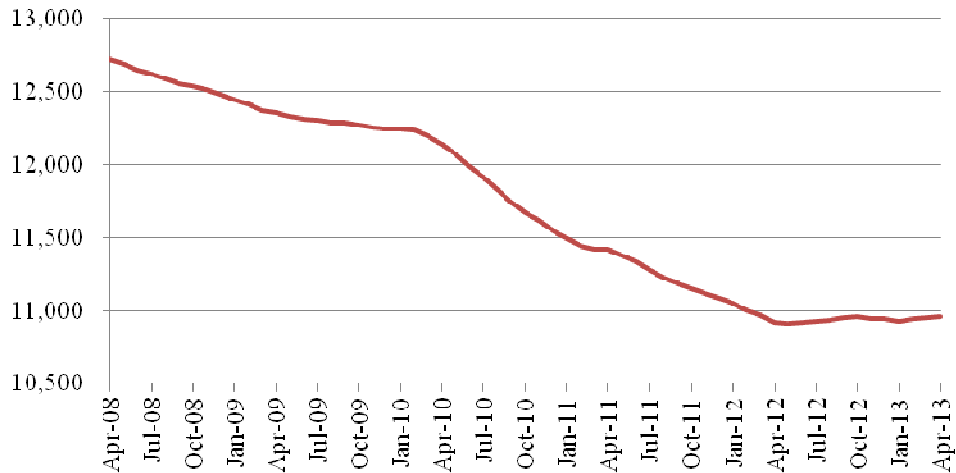
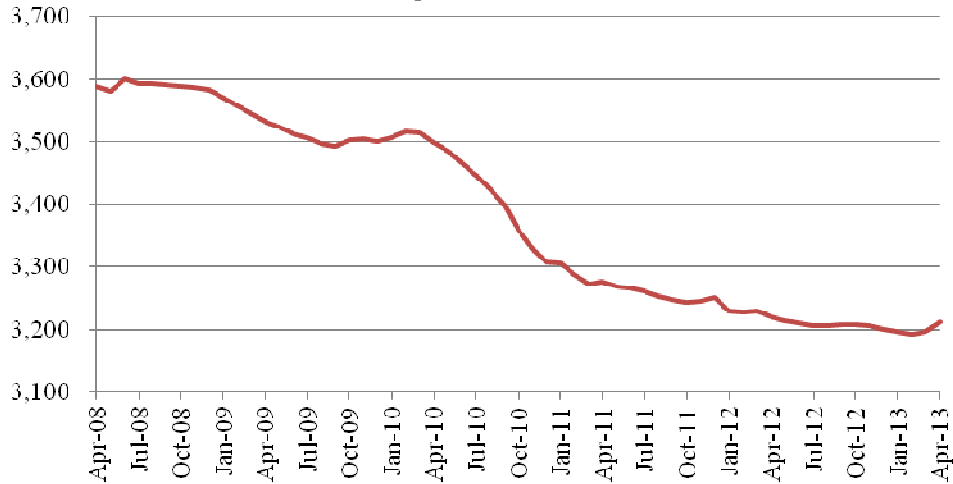


Missouri Gas Energy  
 Customer Count History by Rate Schedule and Area - 12-Month Rolling Average  
 Test Year Ended April 30, 2013

Kansas City - Small General Service

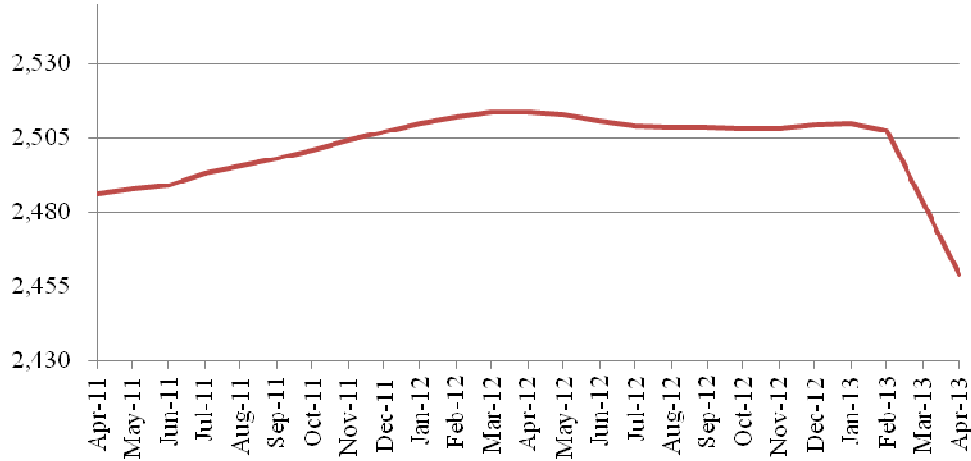


St. Joseph - Small General Service

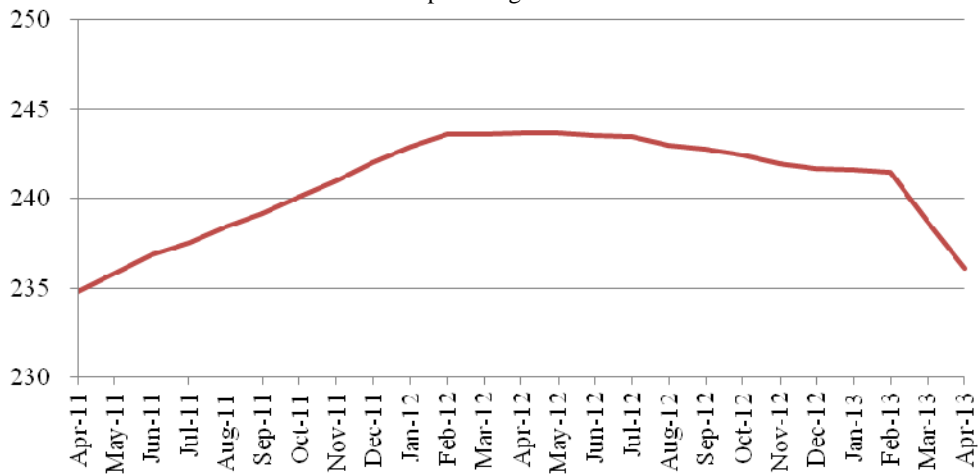


Missouri Gas Energy  
Customer Count History by Rate Schedule and Area - 12-Month Rolling Average  
Test Year Ended April 30, 2013

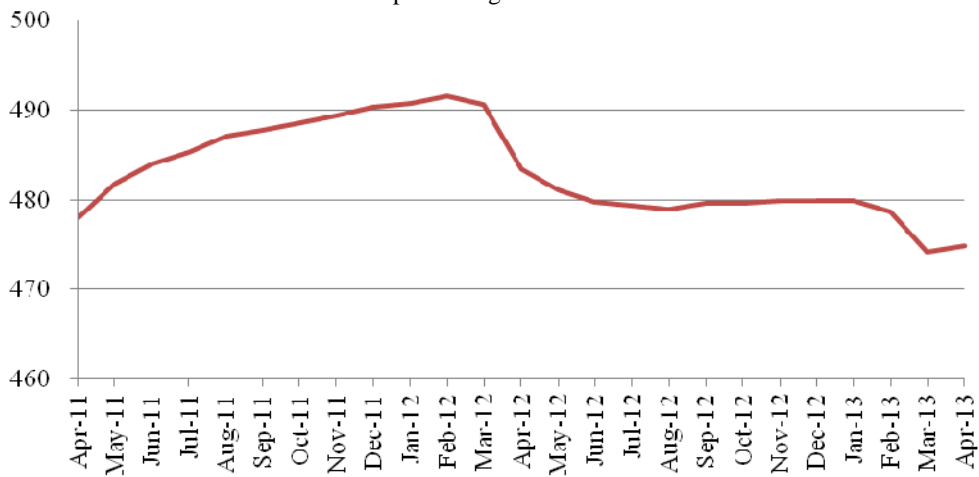
Kansas City - Large General Service



St. Joseph - Large General Service



Joplin - Large General Service



Missouri Gas Energy  
Customer Annualization Adjustment  
Test Year Ended April 30, 2013

	Kansas City	St. Joseph	Joplin	Class Total
<b>Residential</b>				
Customer Additions (Reductions)	7,473	(1,256)	5,651	11,868
Fixed Monthly Charge Dollars				<u>\$ 319,019</u>
<b>Small General Service</b>				
Customer Additions (Reductions)	(7,988)	(91)	469	(7,610)
Fixed Monthly Charge Dollars				<u>\$(298,751)</u>
<b>Large General Service</b>				
Customer Additions (Reductions)	(651)	(91)	(102)	(844)
Volume Additions (Reductions)				
Nov-Mar	(852,711)	(125,646)	(130,159)	(1,121,798)
Apr-Oct	(373,616)	(62,657)	(69,745)	(504,992)
Fixed Monthly Charge Dollars	(75,041)	(10,490)	(11,758)	\$ (93,946)
Volumetric Dollars				
Nov-Mar	(109,130)	(16,080)	(16,658)	\$(143,568)
Apr-Oct	(27,558)	(4,622)	(5,144)	(37,248)
				<u>\$(180,816)</u>
				<u>\$ (274,762)</u>

Missouri Gas Energy  
 General Service to Large Volume Service Rate Switching and Large Volume  
 Service Customer Loss Adjustments  
 Test Year Ended April 30, 2013

	<u>Number of Bills</u>	<u>Volumes (Ccf)</u>	<u>Revenue</u>
<u>Rate Switching</u>			
Small General Service (1)	(3)	n.a.	<u>\$ (118)</u>
Large General Service			
Nov-Mar	(2)	(29,360)	(3,980)
Apr-Oct	(8)	(214,470)	(16,710)
			<u>\$ (20,690)</u>
Large Volume Service			
Nov-Mar	2	29,360	3,340
Apr-Oct	11	307,000	19,373
			<u>\$ 22,713</u>
<u>Customer Losses</u>			
Large Volume Service			
LVS Rates			
Nov-Mar	(5)	0	(4,361)
Apr-Oct	(7)	(50)	(6,105)
Flex Rates	(8)	(938,490)	(7,977)
			<u>\$ (18,443)</u>

(1) SGS volume reduction has no SGS revenue consequence.