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MISSOURI PUBLIC SERVICE COMMISSION

**COMMISSION STAFF DIVISION
OPERATIONAL ANALYSIS DEPARTMENT**

SURREBUTTAL TESTIMONY

OF

ROBIN KLIETHERMES

SPIRE MISSOURI INC. d/b/a SPIRE

**LACLEDE GAS COMPANY and MISSOURI GAS ENERGY
GENERAL RATE CASE**

**CASE NOS. GR-2017-0215
and GR-2017-0216**

*Jefferson City, Missouri
November, 2017*

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1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

TABLE OF CONTENTS
SURREBUTTAL TESTIMONY
OF
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RESPONSE REGARDING LAC AND MGE'S PROPOSED SGS AND LGS CLASSES 2
RESPONSE TO MR. LYONS REGARDING SGS AND LGS RATE COMPARISON 6
RESPONSE REGARDING RESIDENTIAL CUSTOMER CHARGES..... 8
RESPONSE TO MIEC REGARDING CLASS COST OF SERVICE ALLOCATIONS 17
RESPONSE REGARDING LAC AND MGE TARIFFS 21
CORRECTION TO STAFF'S CLASS COST OF SERVICE (CCOS) STUDIES 24

1 | **SURREBUTTAL TESTIMONY**

2 | **OF**

3 | **ROBIN KLIETHERMES**

4 | **SPIRE MISSOURI, INC., d/b/a SPIRE**

5 | **LACLEDE GAS COMPANY and MISSOURI GAS ENERGY**

6 | **CASE NOS. GR-2017-0215 and GR-2017-0216**

7 | Q. Please state your name and business address.

8 | A. Robin Kliethermes, 200 Madison Street, Jefferson City, MO 65102.

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

10 | A. I am employed by the Missouri Public Service Commission ("Commission")
11 | as the Rate and Tariff Examination Manager of the Tariff and Rate Design Unit of the
12 | Operation Analysis division of the Commission Staff.

13 | Q. Are you the same Robin Kliethermes that previously filed testimony in
14 | Staff's Direct Class Cost of Service Report and rebuttal testimony in this case?

15 | A. Yes.

16 | Q. What is the purpose of your surrebuttal testimony?

17 | A. The purpose of my surrebuttal testimony is to:

- 18 | 1. Address LAC and MGE witness Mr. Timothy Lyons regarding LAC
19 | and MGE's recommended Small General Service ("SGS") and Large
20 | General Service ("LGS") classes and rate comparisons.
- 21 | 2. Address LAC and MGE, Division of Energy ("DE") and Office of
22 | Public Counsel ("OPC") regarding residential customer charge.
- 23 | 3. Address MIEC's witness Mr. Brian Collins regarding class cost of
24 | service.
- 25 | 4. Address LAC and MGE witness Mr. Scott Weitzel regarding the
26 | Companies' recommended Excess Flow Valve ("EFV") tariff and the
27 | Companies' description of service area included in tariffs.

1 5. Correction to Staff's MGE and LAC class cost of service (CCOS)
2 studies.

3 **RESPONSE REGARDING LAC AND MGE'S PROPOSED SGS AND LGS CLASSES**

4 Q. Specifically, what parts of Mr. Lyons' rebuttal testimony will you address?

5 A. First I will address Mr. Lyons' criticism of Staff's proposed consolidation
6 of LAC's current Commercial and Industrial CI, CII, and CIII classes into one General
7 Services class and consolidation of MGE's current SGS and LGS classes into one General
8 Services class.

9 Q. Do you generally agree with Mr. Lyons' that, "[t]he general approach to
10 establishing rate classes is to group together those customers with similar demand
11 characteristics while keeping distinct those customers with different demand characteristics"¹?

12 A. In general yes. However, as I described in Staff's Class Cost of Service Report,
13 LAC and MGE have not ensured that their existing classes adequately stratify customers
14 based on customer characteristics. For example, LAC customers with less than 5,000 therms
15 of usage can currently be found on all of LAC's CI, CII and CIII rate schedules even though
16 customers with less than or equal to 5,000 therms of usage should be served on CI and
17 customers with greater than 5,000 therms should be served on either CII or CIII depending on
18 size of the customer. Similarly, MGE customers using equal to or less than 10,000 therms can
19 be found on the LGS rate schedule.

20 Q. On page 13 of Mr. Lyons' rebuttal testimony, he provides the average use per
21 customer for the Company's proposed SGS and LGS classes for LAC and MGE to show that
22 larger use customers are in the LGS class and lower use customers are in the SGS class. Do
23 you agree that this adequately reflects the customers that make up the class?

¹ Page 12, lines 1 through 3 in Mr. Lyons' Rebuttal Testimony

Surrebuttal Testimony of
Robin Kliethermes

1 A. No. The averages just reflect that there are a greater number of commercial
2 customers with lower than average usage served on the SGS rate schedule than the number of
3 higher than average usage customers who should be moved into the LGS rate schedule. This
4 is not unexpected since a large portion of the customers are on the appropriate rate schedule.

5 Q. Did LAC and MGE identify customers who, in the opinion of the Company,
6 should switch customer classes based on an annual usage review?

7 A. Yes, per LAC's workpaper and as shown in the table below, LAC identified
8 the number of customers who should switch classes based on an annual review of the
9 customers' weather normalized usage.

	Count
CIs that should be CIs	669
CIs that should be CIIIs	36
CIIIs that should be CIs	1,539
CIIIs that should be CIIIs	119
Total	2,363

11
12 Further, per MGE's workpaper and as shown in the table below, MGE identified the
13 number of customers who should switch classes based on an annual review of the customers'
14 weather normalized usage.

	Count
SGS to LGS	225
LGS to SGS	707
	932

15
16
17 Q. Did LAC and MGE make an adjustment to billing determinants to account for
18 these customers possibly switching rate classes?

19 A. Yes.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. Is the adjustment proposed by LAC and MGE reasonable?

2 A. It is reasonable to make an adjustment for rate switchers to billing
3 determinants if the Company will be ordered to move those customers; however, the
4 Company did not accurately calculate the adjustment, and as proposed, the Company is under
5 no obligation to move the identified customers going forward.

6 Q. What are Staff's concerns with the calculation of the billing determinants to be
7 adjusted?

8 A. In the Company's process of identifying these potential rate switchers, the
9 Company weather normalized the customers' usage using a different set of normal weather
10 than the Company used for the test year usage. For example, in MGE's workpaper MGE
11 provides the below table providing the monthly Heating Degree Days ("HDD") the Company
12 used to weather normalize the potential rate switchers.

13

	Monthly HDDS at MCI											2017
	2	3	4	5	6	7	8	9	10	11	12	1
2016/17	749	451	247	125	0	0	0	23	150	425	1078	1011
NOAA Normal (1981-2010)	882	647	329	104	7	0	0	64	292	644	1040	1114
25 Yr Avg (1992-2016)	896	641	318	105	8	0	1	54	280	622	996	1119

14

15 It appears from the workpaper that MGE uses NOAA Normal 1981 to 2010. However,
16 for test year usage MGE used what MGE refers to as a 10 year Normal BCDD as provided in
17 the table below.

Surrebuttal Testimony of
Robin Kliethermes

	10 year Normal BC
Jan-16	1156
Feb-16	981
Mar-16	814
Apr-16	491
May-16	180
Jun-16	39
Jul-16	0
Aug-16	0
Sep-16	7
Oct-16	130
Nov-16	398
Dec-16	845

It is also important to note that the time period that MGE used to develop the potential rate switcher billing determinants is from February 2016 through January 2017, rather than the test year of January 2016 through December 2016.

LAC also used a different normal weather period for its weather normalization of potential rate switchers compared to what it used to weather normalize test year usage for the class. Although MGE and LAC made an adjustment to billing determinants for customers who could switch based on a review of the customers' annual usage, Staff has concerns that the adjustment is not accurate and will change based on approved rate designs in this case.

Q. If MGE and LAC used its proposed 10 year Normal BCDD would the usage adjustment be different?

A. Possibly. For example, based on actual usage MGE identified 1,004 customers currently served on MGE's LGS rate schedule that have less than 10,000 CCF's of usage from February 2016 through January 2017. After MGE applied its weather normalized adjustment the number of customers dropped to 707 as noted above.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. Were other adjustments made to billing determinants for MGE, such as the
2 landlord accounts that will switch from the SGS class to the Residential class on the
3 conclusion of this case, weather normalized?

4 A. No.

5 Q. Although MGE made an adjustment for the purposes of billing determinants in
6 this case, has MGE moved these customers between the LGS and SGS classes based on a
7 review of the customer's annual usage?

8 A. No. However, MGE has not stated whether it will move customers
9 automatically upon the effective date of rates in this case or if MGE will only move the
10 customers who take action and ask to be moved. If customers will be required to initiate a rate
11 schedule change, Staff has further concerns regarding the lack of information the Company
12 has provided regarding how customers will be notified of the choice to switch rate classes and
13 the timeline after rates are set in this case to get customers on the appropriate rate schedules.

14 Q. Does Mr. Lyons agree that customers served on MGE's LGS rate schedule
15 would receive a lower bill under the SGS rate schedule regardless of usage?

16 A. Yes. Mr. Lyons further explains that potential variations in MGE's proposed
17 rate design could mitigate the disparity, including reducing the SGS customer charge, which
18 would increase the volumetric rate beyond that of the proposed LGS volumetric rate.
19 However, at this time no alternative rates were proposed by MGE in order for Staff to be able
20 to compare.

21 **RESPONSE TO MR. LYONS REGARDING SGS AND LGS RATE COMPARISON**

22 Q. Have you reviewed Mr. Lyons' supposed "apples to apples" comparison
23 Figure 5 on page 19 of his rebuttal testimony?

Surrebuttal Testimony of
Robin Kliethermes

1 A. Yes.

2 Q. What are Mr. Lyons "apples" in Figure 5?

3 A. Mr. Lyons has prepared a comparison of Staff's recommended rate design and
4 the Companies' recommended rate design at the two recommended revenue requirements. He
5 has not provided a comparison of either recommended rate design at any revenue requirement
6 to the existing rates that customers are being charged. Staff does agree that the customer
7 impacts it provided in direct are based on recovery of different revenue requirements.
8 However, Staff is unsure of the usefulness of Figure 5 in determining the impact of either rate
9 design on the increase a customer will experience, nor any other use.

10 Q. Did Mr. Lyons' accurately reflect Staff's rate design recommendation in the
11 MGE bill comparison he provided on page 19 of his rebuttal testimony?²

12 A. For MGE, Mr. Lyons appears to have erroneously assumed that Staff would
13 recommend consolidation at an awarded revenue requirement increase that exceeds Staff's
14 recommended increase by 400%. Staff agrees that if an increase in this case exceeds
15 approximately \$15 million for MGE it is possible that customer impacts for current SGS
16 customers would be such that it would be inappropriate to proceed with rate consolidation.

17 However, for an increase between the amount of Staff's direct recommended revenue
18 requirement and \$15 million, Staff has recommended an equal percentage increase to its
19 consolidated General Service rate design for MGE. This is not what Mr. Lyons reflected in his
20 rate comparison.

21 Q. Did Mr. Lyons' provide a rate comparison for LAC similar to Figure 5
22 provided for MGE on page 19 of his rebuttal testimony?

² The difference between the Company's and Staff's increase in revenue requirement is \$41.7 million.

Surrebuttal Testimony of
Robin Kliethermes

1 A. Although Mr. Lyons does not discuss it in his testimony, Schedule TSL-R1
2 compares the differences between LAC's requested rate design and Staff's proposed General
3 Services consolidated rate design scaled up to LAC's requested revenue requirement increase.
4 He does not provide any comparison or analysis of customers on existing rates going to either
5 rate design or revenue requirement.

6 **RESPONSE REGARDING RESIDENTIAL CUSTOMER CHARGES**

7 Q. What are the proposed residential customer charges recommended by the
8 parties for LAC and MGE?

9 A. Of the parties that filed rate design rebuttal, LAC is proposing a customer
10 charge after October 2018³ of \$17.00; MGE is proposing a customer charge of \$20.00 after
11 October 2018; OPC is proposing a customer charge of \$14.00 for both LAC and MGE; and
12 Staff is proposing a customer charge of \$26 for LAC and \$20 for MGE. Although Division of
13 Energy ("DE") did not propose a customer charge value, DE is supportive of lower customer
14 charges.

15 Q. Would it be helpful to review customer impacts using the different residential
16 customer charges recommended by the parties?

17 A. Yes. DE witness Mr. Martin Hyman recommended in his rebuttal testimony
18 that Staff and the Company calculate customer impacts under the respective recommended
19 revenue requirements using the different rate designs proposed by Staff and the Company.

20 Q. Has LAC and MGE or Staff already provided DE's requested analysis?

21 A. As explained in more detail below, LAC provided a bill comparison rather than
22 a customer impact analysis. However, since MGE and Staff have the same recommended

³ Prior to October of 2018 LAC and MGE are both proposing temporary interim rates as shown on page 5 of my rebuttal testimony.

Surrebuttal Testimony of
Robin Kliethermes

1 residential customer charge of \$20, Staff has provided MGE customer impacts at the time of
2 direct. Although Staff provided customer impacts in direct and rebuttal that compared Staff's
3 recommended rate design to customer's current bills, Staff did not provide a customer impact
4 if Staff's rate design utilized a \$17.00 customer charge instead of \$26.00.

5 Q. Mr. Lyons' provides a residential bill comparison in his rebuttal testimony
6 comparing the bill differences between LAC's proposed residential rate designs using a
7 \$17.00 customer charge versus a \$26.00 customer charge. He does so by comparing annual
8 bill totals, on various levels of annual usage. Does Mr. Lyons' analysis provide any
9 information as to how customers would be impacted based on how their usage varies *during*
10 the year?

11 A. No. Staff recommends looking at bill comparisons on a monthly basis, since
12 many gas customers only use gas in the winter months, for heating purposes. Looking at
13 monthly bill impacts is also helpful in evaluating the impact of moving away from LAC's
14 current weather mitigated rate design.

15 Q. Did Mr. Lyons compare what a customer currently pays to what a customer
16 would pay under (a) LAC's proposed rate design using a \$17.00 customer charge, versus (b)
17 Staff's recommended \$26.00 customer charge?

18 A. No. What Mr. Lyons refers to as customer impacts is actually a comparison of
19 Staff's recommendation scaled up for LAC's revenue requirement and the Company's
20 residential rate design proposal – not a comparison of what a customer is currently paying
21 versus what a customer would be paying. Staff is uncertain as to why this is identified as a
22 comparison of "impacts" in Mr. Lyons' testimony.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. Does Mr. Lyons provide context for what he means by the term “lower usage
2 customers” in reaching his conclusion that a higher customer charge will result in higher bill
3 impacts for lower usage customers?

4 A. No. For example, a “low use” customer could be one who uses a little bit of
5 gas each month, and uses the same amount of gas every month, such as a customer with a gas
6 water heater and cook stove who does not use gas for space heating. Or, a “low use”
7 customer could be one who uses most of their gas during the heating months and little to no
8 gas during the other months. It is important to consider the different interpretations of the
9 term “low use” in reviewing Mr. Lyon’s analysis, and to be aware that his analysis does not
10 assume that a customer’s winter usage exceeds its summer usage due to space heating.

11 Q. Did Staff find that there are there large differences in customer usage between
12 the summer and winter months?

13 A. Yes. During the summer most customers use less than 50 therms per month,
14 and in winter most customers use close to 150 therms per month.

15 The table below shows where the distribution in customer bills fall each month
16 for LAC. For example, for the months of January and February approximately 73% and 78%
17 of the customers (436,735 and 471,138 customers) use between 51 and 200 therms of gas
18 each of those months. However, in the summer months of July, August, and September over
19 94% of the customers (more than 530,000 customers) use less than 30 therms of gas in
20 those months.

21 *continued on next page*

Surrebuttal Testimony of
Robin Kliethermes

Usage in Therms	January	February	March	April	May	June	July	August	September	October	November	December
1 to 10	1.76%	1.80%	2.32%	3.88%	11.45%	19.85%	32.81%	37.87%	31.85%	27.15%	11.28%	2.31%
11 to 20	1.20%	1.14%	2.16%	5.29%	26.83%	40.41%	47.27%	46.68%	47.30%	44.65%	22.45%	2.00%
21 to 30	1.30%	1.21%	2.88%	8.66%	28.83%	25.53%	14.76%	11.80%	15.16%	18.22%	20.54%	2.31%
31 to 50	3.40%	3.37%	9.64%	27.36%	24.47%	11.69%	4.03%	2.86%	4.34%	7.68%	24.59%	7.96%
51 to 100	20.95%	22.56%	44.04%	45.17%	7.35%	1.83%	0.82%	0.59%	0.83%	1.80%	18.10%	32.23%
101 to 150	30.95%	35.33%	26.69%	7.66%	0.63%	0.29%	0.18%	0.11%	0.21%	0.20%	2.31%	27.94%
151 to 200	20.71%	20.24%	8.43%	1.32%	0.17%	0.16%	0.07%	0.04%	0.11%	0.09%	0.45%	14.22%
201 to 300	14.49%	11.19%	3.16%	0.49%	0.12%	0.14%	0.05%	0.03%	0.11%	0.09%	0.18%	8.36%
301 to 400	3.42%	2.16%	0.46%	0.09%	0.06%	0.05%	0.01%	0.01%	0.04%	0.05%	0.04%	1.76%
401 to 500	1.08%	0.59%	0.13%	0.03%	0.03%	0.02%	0.00%	0.00%	0.02%	0.03%	0.02%	0.52%
501 to 600	0.40%	0.21%	0.04%	0.02%	0.02%	0.01%	0.00%	0.00%	0.01%	0.02%	0.01%	0.20%
Over 600	0.34%	0.20%	0.04%	0.03%	0.03%	0.01%	0.00%	0.00%	0.01%	0.02%	0.02%	0.18%

Q. Did Staff perform a bill impact analysis using Staff's recommended residential rate design which includes a \$26.00 customer charge and what a bill impact would be using Staff's rate design with a \$17.00 customer charge?

A. Yes. Staff compared a residential customer's current bill to what a residential customer's bill would be using Staff's rate design with a \$26.00 customer charge and what a bill would be using Staff's rate design with a \$17.00 customer charge.⁴ Below are the rates I used in the analysis and a summary of the customer bill impacts with and without the Purchased Gas Adjustment ("PGA") charge.

LAC Residential Rate Design	Customer Charge	November - April		May - October	
		Winter	Winter	Summer	Summer
		1st 30 Therms	All Therms over 30	1st 30 Therms	All Therms over 30
Current rate Design	\$ 19.50	\$ 0.91686	\$ -	\$ 0.31290	\$ 0.15297
Staff's Direct Filed Rate Design	\$ 26.00	\$ 0.16338	0.16338	0.16338	0.16338
Staff's Direct Filed Rate Design with a \$17.00 customer charge	\$ 17.00	\$ 0.29587	0.29587	0.29587	0.29587
	Current PGA	\$ 0.34611	\$ 0.59022	0.54708	0.54708
	Company Proposed PGA	\$ 0.47767	\$ 0.47767	\$ 0.47767	\$ 0.47767

⁴ For purposes of bill impacts, I included the current PGA rates in the calculation of a customer's current bill and LAC's proposed PGA rate in the calculation of what a customer's bill would be using Staff's rate design. PGA rates change at least once a year outside of a rate case, so bill impacts when including the PGA will change annually.

Surrebuttal Testimony of
Robin Kliethermes

		Staff					
		With PGA				Without PGA	
January Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge	January Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge
Customers Using Less than or equal to 50 therms	46,023	\$ (12.54)	\$ (7.88)	Customers Using Less than or equal to 50 therms	46,023	\$ (14.68)	\$ (10.01)
Customers Using 51 to 200 therms	436,735	\$ 4.79	\$ (6.07)	Customers Using 51 to 200 therms	436,735	\$ 14.33	\$ 3.47
Customers Using over 200 therms	118,622	\$ 39.72	\$ 3.62	Customers Using over 200 therms	118,622	\$ 70.70	\$ 34.61
July Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge	July Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge
Customers Using Less than or equal to 50 therms	584,085	\$ (4.05)	\$ 2.38	Customers Using Less than or equal to 50 therms	584,085	\$ (2.70)	\$ 3.73
Customers Using 51 to 200 therms	6,306	\$ 1.13	\$ (5.06)	Customers Using 51 to 200 therms	6,306	\$ 9.08	\$ 2.90
Customers Using over 200 therms	375	\$ 18.48	\$ (19.00)	Customers Using over 200 therms	375	\$ 42.83	\$ 5.35

From the table, for January, the difference between a customer's current bill and Staff's residential rate design using a \$17.00 customer charge provides a bill decrease of approximately \$12.54 including the PGA and a bill decrease of \$14.68 without including the change in PGA for 46,023 customers using 50 therms or less, but a bill increase of \$4.79 including the PGA and a bill increase of \$14.33 without the PGA for 436,735 customers using between 51 to 200 therms.

However, if a \$26.00 customer charge is used, customers using 50 therms or less in January would still see a bill decrease from what they are currently paying, but 436,735

Surrebuttal Testimony of
Robin Kliethermes

1 customers using between 51 to 200 therms would only see an increase under the bill impact
2 scenario excluding the PGA of \$3.47 and would see a decrease of \$6.07 with the PGA.

3 Conversely, in the summer months when a customer may have very little usage, if any,
4 a higher customer charge does have a different bill impact. For example, in July 584,085
5 customers will see a bill increase of approximately \$2.38 including the PGA or \$3.73 without
6 the PGA under Staff's proposed customer charge of \$26. Customer impacts for the full
7 12 months of the year can be found in Schedule RK-s1.

8 Q. Did Staff perform a bill impact analysis using Staff's recommended residential
9 customer charge of \$26 on the Company's recommended revenue requirement?

10 A. Yes. Below are the rates I used, which other than the PGA were provided in
11 Mr. Lyons' rebuttal testimony, and a summary of the results in the same format as provided
12 above for Staff's revenue requirement.

13

LAC Residential Rate Design	Customer Charge	November - April		May - October	
		Winter 1st 30 Therms	Winter All Therms over 30	Summer 1st 30 Therms	Summer All Therms over 30
Current rate Design	\$ 19.50	\$ 0.91686	\$ -	\$ 0.31290	\$ 0.15297
Company Rate Design with a \$26 customer charge	\$ 26.00	\$ 0.24556	\$ 0.24556	\$ 0.24556	\$ 0.24556
Company Rate Design with \$17 customer charge	\$ 17.00	\$ 0.37962	\$ 0.37962	\$ 0.37962	\$ 0.37962
	Current PGA	\$ 0.34611	\$ 0.59022	\$ 0.54708	\$ 0.54708
	Company Proposed PGA	\$ 0.47767	\$ 0.47767	\$ 0.47767	\$ 0.47767

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Surrebuttal Testimony of
Robin Kliethermes

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LAC							
With PGA				Without PGA			
January Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge	January Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge
Less than or equal to 50 therms	46,023	\$ (9.80)	\$ (5.19)	Less than or equal to 50 therms	46,023	\$ (11.93)	\$ (7.32)
51 to 200 therms	436,735	\$ 17.33	\$ 6.25	51 to 200 therms	436,735	\$ 26.87	\$ 15.79
Over 200 therms	118,622	\$ 68.22	\$ 31.59	Over 200 therms	118,622	\$ 99.21	\$ 62.58
July Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge	July Usage	Number of Customers	Diff. Between Current Bill and \$17 Customer Charge	Diff. Between Current Bill and \$26 Customer Charge
Less than or equal to 50 therms	584,085	\$ (2.42)	\$ 3.98	Less than or equal to 50 therms	584,085	\$ (1.08)	\$ 5.32
51 to 200 therms	6,306	\$ 10.73	\$ 4.36	51 to 200 therms	6,306	\$ 18.68	\$ 12.31
Over 200 therms	375	\$ 47.86	\$ 9.83	Over 200 therms	375	\$ 72.21	\$ 34.18

2

3

Q. Did Staff perform a bill impact analysis using OPC's recommended \$14.00 residential customer charge?

4

5

A. Yes. Below are the rates and the customer bill impacts that would result using OPC's recommended \$14.00 customer charge, applying it to Staff's direct filed revenue requirement and LAC's direct filed revenue requirement.

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Surrebuttal Testimony of
Robin Kliethermes

	Customer Charge	November - April		May - October	
		Winter	Winter	Summer	Summer
LAC Residential Rate Design		1st 30 Therms	All Therms over 30	1st 30 Therms	All Therms over 30
Current rate Design	\$ 19.50	\$ 0.91686	\$ -	\$ 0.31290	\$ 0.15297
OPC's \$14 customer charge on Staff's Rate Design	\$ 14.00	\$ 0.34003	\$ 0.34003	\$ 0.34003	\$ 0.34003
OPC's \$14 customer charge on LAC's Rate Design	\$ 14.00	\$ 0.42420	\$ 0.42420	\$ 0.42420	\$ 0.42420
Current PGA		\$ 0.34611	\$ 0.59022	\$ 0.54708	\$ 0.54708
Company Proposed PGA		\$ 0.47767	\$ 0.47767	\$ 0.47767	\$ 0.47767

OPC's \$14.00 Customer Charge Recommendation using both LAC's and Staff's Revenue Requirement							
With PGA				Without PGA			
January Usage	Number of Customers	Bill Diff. Between Current Bill and \$14 Customer Charge (LAC RR)	Bill Diff. Between Current Bill and \$14 Customer Charge (Staff RR)	January Usage	Number of Customers	Bill Diff. Between Current Bill and \$14 Customer Charge (LAC RR)	Bill Diff. Between Current Bill and \$14 Customer Charge (Staff RR)
Customers Using Less than or equal to 50 therms	46,023	\$ (11.34)	\$ (14.09)	Customers Using Less than or equal to 50 therms	46,023	\$ (13.47)	\$ (16.23)
Customers Using 51 to 200 therms	436,735	\$ 21.01	\$ 8.40	Customers Using 51 to 200 therms	436,735	\$ 30.55	\$ 17.94
Customers Using over 200 therms	118,622	\$ 80.40	\$ 51.75	Customers Using over 200 therms	118,622	\$ 111.39	\$ 82.74
July Usage	Number of Customers	Bill Diff. Between Current Bill and \$14 Customer Charge (LAC RR)	Bill Diff. Between Current Bill and \$14 Customer Charge (Staff RR)	July Usage	Number of Customers	Bill Diff. Between Current Bill and \$14 Customer Charge	Bill Diff. Between Current Bill and \$14 Customer Charge (Staff RR)
Customers Using Less than or equal to 50 therms	584,085	\$ (4.56)	\$ (6.19)	Customers Using Less than or equal to 50 therms	584,085	\$ (3.21)	\$ (4.84)
Customers Using 51 to 200 therms	6,306	\$ 12.83	\$ 3.19	Customers Using 51 to 200 therms	6,306	\$ 20.79	\$ 11.14
Customers Using over 200 therms	375	\$ 60.50	\$ 30.97	Customers Using over 200 therms	375	\$ 84.85	\$ 55.32

Q. Does Staff have concerns regarding a high volumetric rate in the winter?

A. Yes. A familiar argument is that a high volumetric rate will encourage energy efficiency. However, based on the cumulative bill frequency distribution data provided by the Company, a large portion of customers are higher usage customers in the winter and use little

Surrebuttal Testimony of
Robin Kliethermes

1 | to no usage in the summer. This tends to imply that winter heating drives overall customer
2 | usage. Staff cautions that although a high volumetric rate in the winter over the long term
3 | may encourage customers to install a more efficient furnace, over the short term it could also
4 | encourage economically vulnerable customers to turn down their thermostat to a level that
5 | causes physical discomfort or is unsafe.

6 | Q. If winter heating becomes too expensive for gas customers, is there a concern
7 | that customers could switch to an electric furnace instead?

8 | A. Yes. If a customer is only using gas for winter heating purposes a substantial
9 | increase in a customer's winter bill could cause the customer to switch fuel sources.

10 | Q. Does LAC have a financial incentive to set rates that discourage fuel
11 | switching?

12 | A. No. The Company's requested Revenue Stabilization Mechanism is designed
13 | to recover changes in average usage. If winter heating customers drop off of the system, then
14 | average usage per customer would decrease. Based on the Company's proposed RSM the
15 | Company would recover any lost revenues associated with customers leaving the system, thus
16 | the Company would have a financial incentive to establish a rate design with rates that
17 | encourage high usage customers to leave the system. A lower customer charge exacerbates
18 | this incentive to encourage high usage customers to leave the system.

19 | Q. Does cost causation for LAC support a lower customer charge than Staff's
20 | proposed \$26.00?

21 | A. For LAC, no. Staff is the only party that has provided a cost basis for its
22 | residential customer charge calculation. As stated on page 20 of Staff's Class Cost of Service
23 | Report, Staff included the costs outlined below in its calculation of its customer charge.

Surrebuttal Testimony of
Robin Kliethermes

1 Distribution – services (investment and expenses)

2 Distribution – meters and regulators (investment and expenses)

3 Distribution – customer installations

4 Customer deposits

5 Customer billing expenses

6 Uncollectible accounts (write-offs)

7 Customer service & information expenses

8 Portion of income taxes

9 For LAC, this resulted in approximately \$189 million recovered from an average of
10 604,000 monthly customers or approximately \$26 a month. At LAC's requested \$17.00
11 customer charge, a customer using zero therms in a month would be under contributing
12 approximately \$9 per month to what it costs to provide service to that customer.

13 **RESPONSE TO MIEC REGARDING CLASS COST OF SERVICE ALLOCATIONS**

14 Q. What parts of MIEC witness Mr. Brian Collins' rebuttal testimony will you
15 specifically address?

16 A. I specifically address Mr. Collins' argument that Staff's recommendation to
17 allocate any revenue requirement increase above Staff's direct filed revenue requirement to
18 each rate class on an equal percent basis is incorrect for LAC. I will also address Mr. Collins'
19 argument that Staff inappropriately allocated gas storage investment and expenses to
20 transportation customers.

21 Q. What is Mr. Collins' argument regarding Staff's recommendation to allocate
22 any revenue requirement increase above Staff's direct filed revenue requirement to each rate
23 class on an equal percent basis for LAC?

Surrebuttal Testimony of
Robin Kliethermes

1 A. Mr. Collins assumes that a revenue requirement can increase without similar
2 increases to a class's share of the cost of service. If the ultimate revenue requirement is higher
3 than the direct filed revenue requirement Staff allocated in its direct filed CCOS, then it is
4 hard to imagine a scenario in which the transportation classes' share of that revenue
5 requirement would not increase. For example, Staff's study indicates that as of the direct
6 filing approximately \$49.6 million dollars of rate base is allocated to the Large Volume
7 Transportation ("Transportation") class, which at a 6.498% rate of return is worth
8 \$3.2 million. However, LAC has requested a 7.7% ROR which would require approximately
9 \$3.8 million from the transportation customers. While Staff's corrected CCOS did indicate
10 that the transport class is contributing additional revenue of approximately \$1.3 million above
11 its class cost of service, the ROE issue alone would erode this revenue difference by
12 approximately \$600,000.⁵ Absent a separate rate design case after revenue requirements have
13 been determined, Staff's recommendation to apply any increase over its direct filed revenue
14 requirement increase as an equal percentage to all rate elements is reasonable.

15 Q. Do you agree with Mr. Collins that a portion of LAC's underground storage
16 investment and expenses should not be allocated to Transportation customers?

17 A. No. Transportation customers use and benefit from LAC's underground
18 storage. Per LAC's tariff, under 4.3 (a), shown below, monthly transportation gas receipts
19 and deliveries are balanced as best as possible. However, on a monthly basis if the quantity of
20 gas the Company delivered to the customer is greater than the quantity of gas received by the
21 Company on behalf of the customer, the Company will sell to the customer the quantity of gas

⁵ This does not attempt to account for the increase in revenue associated with income tax that would accompany this change in rate of return.

Surrebuttal Testimony of
Robin Kliethermes

1 so that any imbalance is not greater than 5% of the actual quantity of gas received by the
2 Company during the month.

3 4.3 Monthly Balancing. Monthly transportation gas receipts and deliveries shall be in balance
by the Customer to the maximum extent practicable. Despite the best efforts of the Customer to
keep such receipts and deliveries in balance, any imbalance which does occur shall be subject to
the terms and conditions of this Section.

- (a) Monthly Balancing of Over-Delivery to Customer: During any month when the
quantity of gas delivered to the Customer is greater than the quantity of gas
received by the Company on behalf of the Customer, the Company will sell to the
Customer the quantity of gas required so that any such over-delivery imbalance at
the end of the month is not greater than five (5) percent of the actual quantity of
gas received by the Company during such month on behalf of the Customer.
- (b) Monthly Balancing of Under-Delivery to Customer: During any month when the
quantity of gas delivered to the Customer is less than the quantity of gas received
by the Company on behalf of the Customer, the storage charge, as set forth above,
shall be applicable to any such under-delivery imbalance which is in excess of
four five (5) percent of the actual quantity of gas received by the Company during such
month.

4
5 Q. After monthly balancing, how much more gas did transportation customers in
6 the test year use than was received by the Company on the customer's behalf?

7 A. After monthly balancing, during the test year, transportation customers,
8 including both basic and firm service customers, purchased approximately 1.1 million therms
9 from LAC.

10 Q. Does the 1.1 million therms reflect how much gas LAC withdrew from storage
11 to serve transportation customers?

12 A. No. Because records were provided only on a monthly basis of sales net of
13 transported therms, Staff is unable to calculate the level of gas that LAC stored for
14 transportation customers on a daily basis, or withdrew from storage for the benefit of
15 transportation customers on a daily basis.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. Does LAC perform balancing on a daily basis?

2 A. LAC does not perform financial balancing on a daily basis. LAC does
3 constantly manage inputs of gas to the system against withdrawals of gas from the system,
4 within the constraints of the safe operating pressures of the system, including daily
5 imbalances in gas deliveries under contracts for LAC's transportation customers and amounts
6 actually used by those customers. Where those daily imbalances exist, either gas must be
7 stored within the system or injected into storage, or additional gas must be used or withdrawn
8 from storage, to the extent that the imbalance is not absorbed by LAC's retail customers.

9 Q. If a transportation customer requires more gas in a day than they contracted to
10 receive, does LAC curtail that customer's use of gas?

11 A. No.

12 Q. If the customer uses less gas they contracted to receive on a given day, where
13 does that gas go?

14 A. Unless the transportation customer has its own storage, the excess gas is
15 absorbed by LAC either as a line pack or storage.

16 Q. In your rebuttal testimony you mentioned that Mr. Collins made a statement in
17 his direct testimony regarding the allocation of distribution-related costs and that it conflicts
18 with how the Company allocated distribution-related costs, even though Mr. Collins supports
19 the Company's CCOS study. Have you discussed with Mr. Collins your concern with his
20 statement?

21 A. Yes. It is my understanding that Mr. Collins is filing a clarification in his
22 surrebuttal testimony that will eliminate this contradiction and address my previous concern.

1 **RESPONSE REGARDING LAC AND MGE TARIFFS**

2 Q. What are your concerns regarding LAC and MGE tariff recommendations
3 made in LAC and MGE witness Mr. Scott Weitzel's rebuttal testimony?

4 A. Staff is concerned with LAC and MGE's tariff recommendation regarding
5 service territory descriptions for both utilities and with LAC and MGE's requested tariff
6 changes regarding Excess Flow Valves ("EFV").

7 Q. What is your understanding of LAC and MGE's position concerning Staff's
8 recommendation for LAC to include a more detailed description of its service area by
9 including the legal descriptions of the area in LAC's tariffs?

10 A. LAC and MGE witness Mr. Scott Weitzel states that in Case No. GR-99-315
11 the Commission found that LAC did not need to expand the service area description in its
12 tariffs. Further, Mr. Weitzel claims that including the legal descriptions of LAC's service area
13 will distract customers from LAC's rate tariffs; customers can simply call LAC's customer
14 service and be told if they are in LAC's service territory or not; and that LAC and MGE's⁶
15 current service area descriptions listed in the Companies' tariffs are sufficient.

16 Q. Have there been other cases before the Commission relating to MGE or LAC
17 regarding service territory issues?

18 A. Yes. Case No. GA-2007-0289 was an application of Missouri Gas Energy
19 (MGE), a Division of Southern Union Company for a Certificate of Public Convenience and
20 Necessity to provide gas service in Platte County. Empire intervened in the gas and disputed
21 claims made by MGE regarding which utility was authorized to provide service in certain
22 sections of Platte County. In the Commission's Report and Order the Commission directed

⁶ It should be recognized that MGE's current service area description in its tariffs are significantly different and more detailed than LAC's current service area description in its tariffs.

Surrebuttal Testimony of
Robin Kliethermes

1 Empire and MGE to file revised tariff sheets identifying which types of certificates they have
2 (i.e. transport, line, or service area certificates) in all of the areas in which they hold any type
3 of certificate to provide any type of natural gas service.

4 Q. Does MGE currently identify which types of certificates they hold (i.e.
5 transport, line or service area certificates) in all of the areas in which they provide natural gas
6 service in MGE's currently effective tariffs?

7 A. Yes.

8 Q. Does Mr. Weitzel agree that MGE's current service area description provides a
9 good indication of whether or not MGE provides service in a specific area?

10 A. Yes. On page 4 of Mr. Weitzel's rebuttal testimony he states, "The service area
11 description MGE and LAC already have in their tariffs provide the customer with a good
12 indication of whether we are one of the providers that should be contacted for this purpose."

13 Q. As part of this rate case is MGE requesting to remove the majority of MGE's
14 service area description from its currently effective tariffs including the identification of
15 certificates held by MGE in all areas that MGE provides service as the Commission Ordered
16 in Case No. GA-2007-0289?

17 A. As explained in detail in my rebuttal testimony filed in this case, yes.

18 Q. Do you agree with Mr. Weitzel that the service area description included in
19 LAC's current tariff is sufficient?

20 A. No. On page 29 of Staff's direct filed Class Cost of Service Report I explain
21 that LAC's current description is not specific enough to determine the boundary lines,
22 especially for areas around the City of Wentzville and the previous Missouri Natural Gas
23 Company service area.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. What is Staff's recommendation for LAC and MGE regarding the description
2 of service territory provided in LAC and MGE's tariffs?

3 A. Staff recommends that MGE keep all of its current tariffs regarding MGE's
4 service territory description and expand the level of detail used in LAC's service area
5 description to match that used in MGE's tariffs.

6 Q. What specifically is Staff's concern regarding the Companies' requested EFV
7 tariff?

8 A. Staff's concern is that LAC and MGE simply state that the installation costs of
9 an EFV is Time and Material. An excerpt from the proposed tariff is below:

10 Installation costs of an EFV on an eligible service line* for an existing
11 customer when service is not being replaced Time and material

12 Q. Do LAC and MGE currently list a cost in their tariffs for the installation of
13 an EFV?

14 A. Yes. LAC currently charges approximately \$560. MGE currently charges an
15 installation cost is \$65, but maintenance cost is \$900.

16 Q. What is Staff's recommendation regarding the costs listed in the tariff
17 regarding EFVs?

18 A. Staff recommends that a level generally equivalent to the currently expected
19 cost of installation be provided in the tariff, but that the amount that will actually be paid by
20 customers reflect the time and materials expended on the installation, consistent with the
21 Companies' requested treatment. While Staff understands that, for example, subsoil
22 conditions may not be known until excavation has begun, Staff recommends that customers
23 be given some indication of the cost of an average installation, and that the Company provide

1 a reasonable estimate of the cost prior to undertaking an installation. Staff recommends the
2 following tariff language regarding EFV installation cost for MGE and LAC:

3 Installation costs of an EFV on an eligible service line for an existing customer when requested by
4 the customer and when service is not being replaced will consist of:

5 A. EFV Standard Charge: Customer may request installation of an excess flow valve
6 consisting of a valve and 2 hours of labor for a charge of \$560, subject to the
7 provisions of Section B.

8 B. EFV Installation Beyond or Less than the Standard Installation: Company shall
9 provide an estimate of the actual cost of installation prior to undertaking an
10 installation. Investment in the installation of an EFV in excess of that provided by the
11 Standard Charge as determined under Section A will be made by the Company,
12 provided the applicant requesting installation of an EFV deposits, as a contribution-in-
13 aid-of-construction, the Company's estimated cost of such excess. Any variation
14 between any charge under Section A or this Section B and the actual cost of
15 installation shall be refunded to customer within 60 days.

16 **CORRECTION TO STAFF'S CLASS COST OF SERVICE (CCOS) STUDIES**

17 Q. Did you have a correction to Staff's CCOS studies for MGE and LAC?

18 A. Yes. In responding to data requests I discovered that expense relating to the
19 amortization of energy efficiency programs was in FERC account 908: Customer Assistance
20 Expense, which is an account under Customer Service and Information Expense. Because
21 these costs were in Customer Assistance Expense, Staff originally allocated them on the
22 number of customers in the class and included the expense in the calculation of the
23 Residential customer charge.

24 Staff corrected the allocation to be consistent with Staff's allocation of the rate base
25 portion of energy efficiency program costs which was allocated to each class for both MGE
26 and LAC based on that class' percent of total usage. The correction also removed the costs
27 from the calculation of the Residential customer charge MGE and LAC.

Surrebuttal Testimony of
Robin Kliethermes

1 Q. Does this correction change Staff's recommended rate design?

2 A. No. Below are the changes that occurred to each class' cost of service due to
3 the proper allocation of energy efficiency expense.

4

LAC	Change to class cost of service for each rate class		Change to class cost of service for each rate class	
Residential	\$ (851,871)	MGE	Residential	\$ (753,527)
General Service	\$ 364,877		General Service	\$ 161,714
Large Volume	\$ 25,695		Large Volume	\$ 591,824
LV Transport	\$ 438,871		Unmetered Gas	
Interruptible Sales	\$ 14,879		Light	\$ (9)
General L.P. Gas	\$ (85)			
Unmetered Gas				
Light	\$ 82			
Vehicular Fuel	\$ 7,549			

5

6 Q. Does this conclude your surrebuttal testimony?

7 A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's)
Request to Increase Its Revenues for) Case No. GR-2017-0215
Gas Service)

In the Matter of Laclede Gas Company)
d/b/a Missouri Gas Energy's Request to) Case No. GR-2017-0216
Increase Its Revenues for Gas Service)

AFFIDAVIT OF ROBIN KLIETHERMES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW ROBIN KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Surrebuttal Testimony; and that the same is true and correct according to her best knowledge and belief.

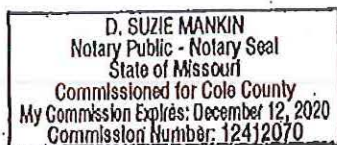
Further the Affiant sayeth not.

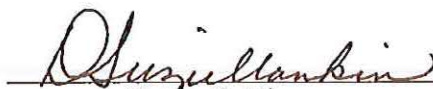


ROBIN KLIETHERMES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 20th day of November, 2017.





Notary Public

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

Bill Impacts Using Staff Revenue Requirement with PGA

Usage Range	High End of Range	January Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and	Bill Diff. Between Current and
1 to 10	10	10,571	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)
11 to 20	20	7,193	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)
21 to 30	30	7,798	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)
31 to 50	50	20,461	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)
51 to 100	100	126,010	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)
101 to 150	150	186,156	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82
151 to 200	200	124,569	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98
201 to 300	300	87,139	\$ 216.75	\$ 218.32	\$ 249.06	\$ 1.57	\$ 32.31
301 to 400	400	20,549	\$ 275.77	\$ 282.42	\$ 326.42	\$ 6.65	\$ 50.65
401 to 500	500	6,481	\$ 334.79	\$ 346.53	\$ 403.77	\$ 11.73	\$ 68.98
501 to 600	600	2,383	\$ 393.81	\$ 410.63	\$ 481.12	\$ 16.82	\$ 87.31
Over 600	650	2,070	\$ 423.33	\$ 442.68	\$ 519.80	\$ 19.36	\$ 96.48

Usage Range	High End of Range	February Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and \$26	Bill Diff. Between Current and \$17
1 to 10	10	10,826	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)
11 to 20	20	6,861	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)
21 to 30	30	7,292	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)
31 to 50	50	20,343	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)
51 to 100	100	136,058	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)
101 to 150	150	213,017	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82
151 to 200	200	122,063	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98
201 to 300	300	67,486	\$ 216.75	\$ 218.32	\$ 249.06	\$ 1.57	\$ 32.31
301 to 400	400	13,049	\$ 275.77	\$ 282.42	\$ 326.42	\$ 6.65	\$ 50.65
401 to 500	500	3,542	\$ 334.79	\$ 346.53	\$ 403.77	\$ 11.73	\$ 68.98
501 to 600	600	1,272	\$ 393.81	\$ 410.63	\$ 481.12	\$ 16.82	\$ 87.31
Over 600	650	1,205	\$ 423.33	\$ 442.68	\$ 519.80	\$ 19.36	\$ 96.48

Usage Range	High End of Range	March Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and \$26	Bill Diff. Between Current and \$17
1 to 10	10	13,980	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)
11 to 20	20	13,055	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)
21 to 30	30	17,370	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)
31 to 50	50	58,222	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)
51 to 100	100	265,959	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)
101 to 150	150	161,192	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82
151 to 200	200	50,919	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98
201 to 300	300	19,077	\$ 216.75	\$ 218.32	\$ 249.06	\$ 1.57	\$ 32.31
301 to 400	400	2,801	\$ 275.77	\$ 282.42	\$ 326.42	\$ 6.65	\$ 50.65
401 to 500	500	781	\$ 334.79	\$ 346.53	\$ 403.77	\$ 11.73	\$ 68.98

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

501 to 600	600	243	\$	393.81	\$	410.63	\$	481.12	\$	16.82	\$	87.31
Over 600	650	255	\$	423.33	\$	442.68	\$	519.80	\$	19.36	\$	96.48

Usage Range	High End of Range	April Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff.	Bill Diff.
						Between Current and \$26	Between Current and \$17
1 to 10	10	22,362	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)
11 to 20	20	30,511	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)
21 to 30	30	49,964	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)
31 to 50	50	157,886	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)
51 to 100	100	260,656	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)
101 to 150	150	44,214	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82
151 to 200	200	7,641	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98
201 to 300	300	2,838	\$ 216.75	\$ 218.32	\$ 249.06	\$ 1.57	\$ 32.31
301 to 400	400	515	\$ 275.77	\$ 282.42	\$ 326.42	\$ 6.65	\$ 50.65
401 to 500	500	169	\$ 334.79	\$ 346.53	\$ 403.77	\$ 11.73	\$ 68.98
501 to 600	600	97	\$ 393.81	\$ 410.63	\$ 481.12	\$ 16.82	\$ 87.31
Over 600	650	153	\$ 423.33	\$ 442.68	\$ 519.80	\$ 19.36	\$ 96.48

Usage Range	High End of Range	May Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff.	Bill Diff.
						Between Current and \$26	Between Current and \$17
1 to 10	10	68,445	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)
11 to 20	20	160,414	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)
21 to 30	30	172,337	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)
31 to 50	50	146,258	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)
51 to 100	100	43,955	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05
101 to 150	150	3,759	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73
151 to 200	200	1,002	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40
201 to 300	300	716	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75
301 to 400	400	383	\$ 304.32	\$ 282.42	\$ 326.42	\$ (21.90)	\$ 22.10
401 to 500	500	203	\$ 374.32	\$ 346.53	\$ 403.77	\$ (27.80)	\$ 29.45
501 to 600	600	136	\$ 444.33	\$ 410.63	\$ 481.12	\$ (33.70)	\$ 36.80
Over 600	650	196	\$ 479.33	\$ 442.68	\$ 519.80	\$ (36.65)	\$ 40.47

Usage Range	High End of Range	June Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff.	Bill Diff.
						Between Current and \$26	Between Current and \$17
1 to 10	10	118,099	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)
11 to 20	20	240,377	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)
21 to 30	30	151,900	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)
31 to 50	50	69,520	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)
51 to 100	100	10,916	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05
101 to 150	150	1,728	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73
151 to 200	200	926	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40
201 to 300	300	855	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75
301 to 400	400	322	\$ 304.32	\$ 282.42	\$ 326.42	\$ (21.90)	\$ 22.10

**Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216**

401 to 500	500	126	\$	374.32	\$	346.53	\$	403.77	\$	(27.80)	\$	29.45
501 to 600	600	62	\$	444.33	\$	410.63	\$	481.12	\$	(33.70)	\$	36.80
Over 600	650	64	\$	479.33	\$	442.68	\$	519.80	\$	(36.65)	\$	40.47

Usage Range	High End of Range	July Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	193,841	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)		
11 to 20	20	279,264	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)		
21 to 30	30	87,188	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)		
31 to 50	50	23,792	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)		
51 to 100	100	4,862	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05		
101 to 150	150	1,044	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73		
151 to 200	200	400	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40		
201 to 300	300	270	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75		
301 to 400	400	58	\$ 304.32	\$ 282.42	\$ 326.42	\$ (21.90)	\$ 22.10		
401 to 500	500	17	\$ 374.32	\$ 346.53	\$ 403.77	\$ (27.80)	\$ 29.45		
501 to 600	600	13	\$ 444.33	\$ 410.63	\$ 481.12	\$ (33.70)	\$ 36.80		
Over 600	650	17	\$ 479.33	\$ 442.68	\$ 519.80	\$ (36.65)	\$ 40.47		

Usage Range	High End of Range	August Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	223,098	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)		
11 to 20	20	275,021	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)		
21 to 30	30	69,546	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)		
31 to 50	50	16,856	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)		
51 to 100	100	3,499	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05		
101 to 150	150	655	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73		
151 to 200	200	260	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40		
201 to 300	300	161	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75		
301 to 400	400	39	\$ 304.32	\$ 282.42	\$ 326.42	\$ (21.90)	\$ 22.10		
401 to 500	500	20	\$ 374.32	\$ 346.53	\$ 403.77	\$ (27.80)	\$ 29.45		
501 to 600	600	10	\$ 444.33	\$ 410.63	\$ 481.12	\$ (33.70)	\$ 36.80		
Over 600	650	16	\$ 479.33	\$ 442.68	\$ 519.80	\$ (36.65)	\$ 40.47		

Usage Range	High End of Range	September Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	179,582	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)		
11 to 20	20	266,662	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)		
21 to 30	30	85,466	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)		
31 to 50	50	24,488	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)		
51 to 100	100	4,674	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05		
101 to 150	150	1,197	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73		
151 to 200	200	646	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40		
201 to 300	300	634	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75		

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

301 to 400	400	231	\$	304.32	\$	282.42	\$	326.42	\$	(21.90)	\$	22.10
401 to 500	500	101	\$	374.32	\$	346.53	\$	403.77	\$	(27.80)	\$	29.45
501 to 600	600	45	\$	444.33	\$	410.63	\$	481.12	\$	(33.70)	\$	36.80
Over 600	650	40	\$	479.33	\$	442.68	\$	519.80	\$	(36.65)	\$	40.47

Usage Range	High End of Range	October Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	159,741	\$ 28.10	\$ 32.41	\$ 24.74	\$ 4.31	\$ (3.36)		
11 to 20	20	262,651	\$ 36.70	\$ 38.82	\$ 32.47	\$ 2.12	\$ (4.23)		
21 to 30	30	107,193	\$ 45.30	\$ 45.23	\$ 40.21	\$ (0.07)	\$ (5.09)		
31 to 50	50	45,183	\$ 59.30	\$ 58.05	\$ 55.68	\$ (1.25)	\$ (3.62)		
51 to 100	100	10,569	\$ 94.30	\$ 90.11	\$ 94.35	\$ (4.20)	\$ 0.05		
101 to 150	150	1,185	\$ 129.31	\$ 122.16	\$ 133.03	\$ (7.15)	\$ 3.73		
151 to 200	200	522	\$ 164.31	\$ 154.21	\$ 171.71	\$ (10.10)	\$ 7.40		
201 to 300	300	513	\$ 234.31	\$ 218.32	\$ 249.06	\$ (16.00)	\$ 14.75		
301 to 400	400	268	\$ 304.32	\$ 282.42	\$ 326.42	\$ (21.90)	\$ 22.10		
401 to 500	500	175	\$ 374.32	\$ 346.53	\$ 403.77	\$ (27.80)	\$ 29.45		
501 to 600	600	122	\$ 444.33	\$ 410.63	\$ 481.12	\$ (33.70)	\$ 36.80		
Over 600	650	146	\$ 479.33	\$ 442.68	\$ 519.80	\$ (36.65)	\$ 40.47		

Usage Range	High End of Range	November Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	66,736	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)		
11 to 20	20	132,815	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)		
21 to 30	30	121,474	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)		
31 to 50	50	145,469	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)		
51 to 100	100	107,093	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)		
101 to 150	150	13,680	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82		
151 to 200	200	2,666	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98		
201 to 300	300	1,080	\$ 216.75	\$ 218.32	\$ 249.06	\$ 1.57	\$ 32.31		
301 to 400	400	239	\$ 275.77	\$ 282.42	\$ 326.42	\$ 6.65	\$ 50.65		
401 to 500	500	108	\$ 334.79	\$ 346.53	\$ 403.77	\$ 11.73	\$ 68.98		
501 to 600	600	64	\$ 393.81	\$ 410.63	\$ 481.12	\$ 16.82	\$ 87.31		
Over 600	650	117	\$ 423.33	\$ 442.68	\$ 519.80	\$ 19.36	\$ 96.48		

Usage Range	High End of Range	December Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	13,276	\$ 32.13	\$ 32.41	\$ 24.74	\$ 0.28	\$ (7.39)		
11 to 20	20	11,475	\$ 44.76	\$ 38.82	\$ 32.47	\$ (5.94)	\$ (12.29)		
21 to 30	30	13,267	\$ 57.39	\$ 45.23	\$ 40.21	\$ (12.16)	\$ (17.18)		
31 to 50	50	45,703	\$ 69.19	\$ 58.05	\$ 55.68	\$ (11.14)	\$ (13.52)		
51 to 100	100	185,052	\$ 98.70	\$ 90.11	\$ 94.35	\$ (8.60)	\$ (4.35)		
101 to 150	150	160,461	\$ 128.22	\$ 122.16	\$ 133.03	\$ (6.06)	\$ 4.82		
151 to 200	200	81,680	\$ 157.73	\$ 154.21	\$ 171.71	\$ (3.52)	\$ 13.98		

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

201 to 300	300	48,011	\$	216.75	\$	218.32	\$	249.06	\$	1.57	\$	32.31
301 to 400	400	10,078	\$	275.77	\$	282.42	\$	326.42	\$	6.65	\$	50.65
401 to 500	500	3,010	\$	334.79	\$	346.53	\$	403.77	\$	11.73	\$	68.98
501 to 600	600	1,167	\$	393.81	\$	410.63	\$	481.12	\$	16.82	\$	87.31
Over 600	650	1,059	\$	423.33	\$	442.68	\$	519.80	\$	19.36	\$	96.48

Bill Impacts Using Staff Revenue Requirement without PGA

Usage Range	High End of Range	January Bill Distribution	Current Bill With PGA			Bill Diff.	Bill Diff.
				\$26 Customer Charge	\$17 Customer Charge	Between Current and \$26	Between Current and \$17
1 to 10	10	10,571	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)
11 to 20	20	7,193	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)
21 to 30	30	7,798	\$ 47.01	\$ 30.90	\$ 25.88	\$ (16.10)	\$ (21.13)
31 to 50	50	20,461	\$ 47.01	\$ 34.17	\$ 31.79	\$ (12.84)	\$ (15.21)
51 to 100	100	126,010	\$ 47.01	\$ 42.34	\$ 46.59	\$ (4.67)	\$ (0.42)
101 to 150	150	186,156	\$ 47.01	\$ 50.51	\$ 61.38	\$ 3.50	\$ 14.37
151 to 200	200	124,569	\$ 47.01	\$ 58.68	\$ 76.17	\$ 11.67	\$ 29.17
201 to 300	300	87,139	\$ 47.01	\$ 75.01	\$ 105.76	\$ 28.01	\$ 58.76
301 to 400	400	20,549	\$ 47.01	\$ 91.35	\$ 135.35	\$ 44.35	\$ 88.34
401 to 500	500	6,481	\$ 47.01	\$ 107.69	\$ 164.94	\$ 60.68	\$ 117.93
501 to 600	600	2,383	\$ 47.01	\$ 124.03	\$ 194.52	\$ 77.02	\$ 147.52
Over 600	650	2,070	\$ 47.01	\$ 132.20	\$ 209.32	\$ 85.19	\$ 162.31

Usage Range	High End of Range	February Bill Distribution	Current Bill With PGA			Bill Diff.	Bill Diff.
				\$26 Customer Charge	\$17 Customer Charge	Between Current and \$26	Between Current and \$17
1 to 10	10	10,826	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)
11 to 20	20	6,861	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)
21 to 30	30	7,292	\$ 47.01	\$ 30.90	\$ 25.88	\$ (16.10)	\$ (21.13)
31 to 50	50	20,343	\$ 47.01	\$ 34.17	\$ 31.79	\$ (12.84)	\$ (15.21)
51 to 100	100	136,058	\$ 47.01	\$ 42.34	\$ 46.59	\$ (4.67)	\$ (0.42)
101 to 150	150	213,017	\$ 47.01	\$ 50.51	\$ 61.38	\$ 3.50	\$ 14.37
151 to 200	200	122,063	\$ 47.01	\$ 58.68	\$ 76.17	\$ 11.67	\$ 29.17
201 to 300	300	67,486	\$ 47.01	\$ 75.01	\$ 105.76	\$ 28.01	\$ 58.76
301 to 400	400	13,049	\$ 47.01	\$ 91.35	\$ 135.35	\$ 44.35	\$ 88.34
401 to 500	500	3,542	\$ 47.01	\$ 107.69	\$ 164.94	\$ 60.68	\$ 117.93
501 to 600	600	1,272	\$ 47.01	\$ 124.03	\$ 194.52	\$ 77.02	\$ 147.52
Over 600	650	1,205	\$ 47.01	\$ 132.20	\$ 209.32	\$ 85.19	\$ 162.31

Usage Range	High End of Range	March Bill Distribution	Current Bill With PGA			Bill Diff.	Bill Diff.
				\$26 Customer Charge	\$17 Customer Charge	Between Current and \$26	Between Current and \$17
1 to 10	10	13,980	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)
11 to 20	20	13,055	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)

**Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216**

21 to 30	30	17,370	\$	47.01	\$	30.90	\$	25.88	\$	(16.10)	\$	(21.13)
31 to 50	50	58,222	\$	47.01	\$	34.17	\$	31.79	\$	(12.84)	\$	(15.21)
51 to 100	100	265,959	\$	47.01	\$	42.34	\$	46.59	\$	(4.67)	\$	(0.42)
101 to 150	150	161,192	\$	47.01	\$	50.51	\$	61.38	\$	3.50	\$	14.37
151 to 200	200	50,919	\$	47.01	\$	58.68	\$	76.17	\$	11.67	\$	29.17
201 to 300	300	19,077	\$	47.01	\$	75.01	\$	105.76	\$	28.01	\$	58.76
301 to 400	400	2,801	\$	47.01	\$	91.35	\$	135.35	\$	44.35	\$	88.34
401 to 500	500	781	\$	47.01	\$	107.69	\$	164.94	\$	60.68	\$	117.93
501 to 600	600	243	\$	47.01	\$	124.03	\$	194.52	\$	77.02	\$	147.52
Over 600	650	255	\$	47.01	\$	132.20	\$	209.32	\$	85.19	\$	162.31

Usage Range	High End of Range	April Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and \$26	Bill Diff. Between Current and \$17
1 to 10	10	22,362	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)
11 to 20	20	30,511	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)
21 to 30	30	49,964	\$ 47.01	\$ 30.90	\$ 25.88	\$ (16.10)	\$ (21.13)
31 to 50	50	157,886	\$ 47.01	\$ 34.17	\$ 31.79	\$ (12.84)	\$ (15.21)
51 to 100	100	260,656	\$ 47.01	\$ 42.34	\$ 46.59	\$ (4.67)	\$ (0.42)
101 to 150	150	44,214	\$ 47.01	\$ 50.51	\$ 61.38	\$ 3.50	\$ 14.37
151 to 200	200	7,641	\$ 47.01	\$ 58.68	\$ 76.17	\$ 11.67	\$ 29.17
201 to 300	300	2,838	\$ 47.01	\$ 75.01	\$ 105.76	\$ 28.01	\$ 58.76
301 to 400	400	515	\$ 47.01	\$ 91.35	\$ 135.35	\$ 44.35	\$ 88.34
401 to 500	500	169	\$ 47.01	\$ 107.69	\$ 164.94	\$ 60.68	\$ 117.93
501 to 600	600	97	\$ 47.01	\$ 124.03	\$ 194.52	\$ 77.02	\$ 147.52
Over 600	650	153	\$ 47.01	\$ 132.20	\$ 209.32	\$ 85.19	\$ 162.31

Usage Range	High End of Range	May Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and \$26	Bill Diff. Between Current and \$17
1 to 10	10	68,445	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)
11 to 20	20	160,414	\$ 25.76	\$ 29.27	\$ 22.92	\$ 3.51	\$ (2.84)
21 to 30	30	172,337	\$ 28.89	\$ 30.90	\$ 25.88	\$ 2.01	\$ (3.01)
31 to 50	50	146,258	\$ 31.95	\$ 34.17	\$ 31.79	\$ 2.22	\$ (0.15)
51 to 100	100	43,955	\$ 39.59	\$ 42.34	\$ 46.59	\$ 2.74	\$ 6.99
101 to 150	150	3,759	\$ 47.24	\$ 50.51	\$ 61.38	\$ 3.26	\$ 14.14
151 to 200	200	1,002	\$ 54.89	\$ 58.68	\$ 76.17	\$ 3.78	\$ 21.28
201 to 300	300	716	\$ 70.19	\$ 75.01	\$ 105.76	\$ 4.83	\$ 35.57
301 to 400	400	383	\$ 85.49	\$ 91.35	\$ 135.35	\$ 5.87	\$ 49.86
401 to 500	500	203	\$ 100.78	\$ 107.69	\$ 164.94	\$ 6.91	\$ 64.15
501 to 600	600	136	\$ 116.08	\$ 124.03	\$ 194.52	\$ 7.95	\$ 78.44
Over 600	650	196	\$ 123.73	\$ 132.20	\$ 209.32	\$ 8.47	\$ 85.59

Usage Range	High End of Range	June Bill Distribution	Current Bill With PGA	\$26 Customer Charge	\$17 Customer Charge	Bill Diff. Between Current and \$26	Bill Diff. Between Current and \$17
1 to 10	10	118,099	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)

**Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216**

11 to 20	20	240,377	\$	25.76	\$	29.27	\$	22.92	\$	3.51	\$	(2.84)
21 to 30	30	151,900	\$	28.89	\$	30.90	\$	25.88	\$	2.01	\$	(3.01)
31 to 50	50	69,520	\$	31.95	\$	34.17	\$	31.79	\$	2.22	\$	(0.15)
51 to 100	100	10,916	\$	39.59	\$	42.34	\$	46.59	\$	2.74	\$	6.99
101 to 150	150	1,728	\$	47.24	\$	50.51	\$	61.38	\$	3.26	\$	14.14
151 to 200	200	926	\$	54.89	\$	58.68	\$	76.17	\$	3.78	\$	21.28
201 to 300	300	855	\$	70.19	\$	75.01	\$	105.76	\$	4.83	\$	35.57
301 to 400	400	322	\$	85.49	\$	91.35	\$	135.35	\$	5.87	\$	49.86
401 to 500	500	126	\$	100.78	\$	107.69	\$	164.94	\$	6.91	\$	64.15
501 to 600	600	62	\$	116.08	\$	124.03	\$	194.52	\$	7.95	\$	78.44
Over 600	650	64	\$	123.73	\$	132.20	\$	209.32	\$	8.47	\$	85.59

Usage Range	High End of Range	July Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	193,841	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)		
11 to 20	20	279,264	\$ 25.76	\$ 29.27	\$ 22.92	\$ 3.51	\$ (2.84)		
21 to 30	30	87,188	\$ 28.89	\$ 30.90	\$ 25.88	\$ 2.01	\$ (3.01)		
31 to 50	50	23,792	\$ 31.95	\$ 34.17	\$ 31.79	\$ 2.22	\$ (0.15)		
51 to 100	100	4,862	\$ 39.59	\$ 42.34	\$ 46.59	\$ 2.74	\$ 6.99		
101 to 150	150	1,044	\$ 47.24	\$ 50.51	\$ 61.38	\$ 3.26	\$ 14.14		
151 to 200	200	400	\$ 54.89	\$ 58.68	\$ 76.17	\$ 3.78	\$ 21.28		
201 to 300	300	270	\$ 70.19	\$ 75.01	\$ 105.76	\$ 4.83	\$ 35.57		
301 to 400	400	58	\$ 85.49	\$ 91.35	\$ 135.35	\$ 5.87	\$ 49.86		
401 to 500	500	17	\$ 100.78	\$ 107.69	\$ 164.94	\$ 6.91	\$ 64.15		
501 to 600	600	13	\$ 116.08	\$ 124.03	\$ 194.52	\$ 7.95	\$ 78.44		
Over 600	650	17	\$ 123.73	\$ 132.20	\$ 209.32	\$ 8.47	\$ 85.59		

Usage Range	High End of Range	August Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	223,098	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)		
11 to 20	20	275,021	\$ 25.76	\$ 29.27	\$ 22.92	\$ 3.51	\$ (2.84)		
21 to 30	30	69,546	\$ 28.89	\$ 30.90	\$ 25.88	\$ 2.01	\$ (3.01)		
31 to 50	50	16,856	\$ 31.95	\$ 34.17	\$ 31.79	\$ 2.22	\$ (0.15)		
51 to 100	100	3,499	\$ 39.59	\$ 42.34	\$ 46.59	\$ 2.74	\$ 6.99		
101 to 150	150	655	\$ 47.24	\$ 50.51	\$ 61.38	\$ 3.26	\$ 14.14		
151 to 200	200	260	\$ 54.89	\$ 58.68	\$ 76.17	\$ 3.78	\$ 21.28		
201 to 300	300	161	\$ 70.19	\$ 75.01	\$ 105.76	\$ 4.83	\$ 35.57		
301 to 400	400	39	\$ 85.49	\$ 91.35	\$ 135.35	\$ 5.87	\$ 49.86		
401 to 500	500	20	\$ 100.78	\$ 107.69	\$ 164.94	\$ 6.91	\$ 64.15		
501 to 600	600	10	\$ 116.08	\$ 124.03	\$ 194.52	\$ 7.95	\$ 78.44		
Over 600	650	16	\$ 123.73	\$ 132.20	\$ 209.32	\$ 8.47	\$ 85.59		

Usage Range	High End of Range	September Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17		
1 to 10	10	223,098	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)		
11 to 20	20	275,021	\$ 25.76	\$ 29.27	\$ 22.92	\$ 3.51	\$ (2.84)		
21 to 30	30	69,546	\$ 28.89	\$ 30.90	\$ 25.88	\$ 2.01	\$ (3.01)		
31 to 50	50	16,856	\$ 31.95	\$ 34.17	\$ 31.79	\$ 2.22	\$ (0.15)		
51 to 100	100	3,499	\$ 39.59	\$ 42.34	\$ 46.59	\$ 2.74	\$ 6.99		
101 to 150	150	655	\$ 47.24	\$ 50.51	\$ 61.38	\$ 3.26	\$ 14.14		
151 to 200	200	260	\$ 54.89	\$ 58.68	\$ 76.17	\$ 3.78	\$ 21.28		
201 to 300	300	161	\$ 70.19	\$ 75.01	\$ 105.76	\$ 4.83	\$ 35.57		
301 to 400	400	39	\$ 85.49	\$ 91.35	\$ 135.35	\$ 5.87	\$ 49.86		
401 to 500	500	20	\$ 100.78	\$ 107.69	\$ 164.94	\$ 6.91	\$ 64.15		
501 to 600	600	10	\$ 116.08	\$ 124.03	\$ 194.52	\$ 7.95	\$ 78.44		
Over 600	650	16	\$ 123.73	\$ 132.20	\$ 209.32	\$ 8.47	\$ 85.59		

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

1 to 10	10	179,582	\$	22.63	\$	27.63	\$	19.96	\$	5.00	\$	(2.67)
11 to 20	20	266,662	\$	25.76	\$	29.27	\$	22.92	\$	3.51	\$	(2.84)
21 to 30	30	85,466	\$	28.89	\$	30.90	\$	25.88	\$	2.01	\$	(3.01)
31 to 50	50	24,488	\$	31.95	\$	34.17	\$	31.79	\$	2.22	\$	(0.15)
51 to 100	100	4,674	\$	39.59	\$	42.34	\$	46.59	\$	2.74	\$	6.99
101 to 150	150	1,197	\$	47.24	\$	50.51	\$	61.38	\$	3.26	\$	14.14
151 to 200	200	646	\$	54.89	\$	58.68	\$	76.17	\$	3.78	\$	21.28
201 to 300	300	634	\$	70.19	\$	75.01	\$	105.76	\$	4.83	\$	35.57
301 to 400	400	231	\$	85.49	\$	91.35	\$	135.35	\$	5.87	\$	49.86
401 to 500	500	101	\$	100.78	\$	107.69	\$	164.94	\$	6.91	\$	64.15
501 to 600	600	45	\$	116.08	\$	124.03	\$	194.52	\$	7.95	\$	78.44
Over 600	650	40	\$	123.73	\$	132.20	\$	209.32	\$	8.47	\$	85.59

Usage Range	High End of Range	October Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Beween Current and \$26	Beween Current and \$17		
1 to 10	10	159,741	\$ 22.63	\$ 27.63	\$ 19.96	\$ 5.00	\$ (2.67)		
11 to 20	20	262,651	\$ 25.76	\$ 29.27	\$ 22.92	\$ 3.51	\$ (2.84)		
21 to 30	30	107,193	\$ 28.89	\$ 30.90	\$ 25.88	\$ 2.01	\$ (3.01)		
31 to 50	50	45,183	\$ 31.95	\$ 34.17	\$ 31.79	\$ 2.22	\$ (0.15)		
51 to 100	100	10,569	\$ 39.59	\$ 42.34	\$ 46.59	\$ 2.74	\$ 6.99		
101 to 150	150	1,185	\$ 47.24	\$ 50.51	\$ 61.38	\$ 3.26	\$ 14.14		
151 to 200	200	522	\$ 54.89	\$ 58.68	\$ 76.17	\$ 3.78	\$ 21.28		
201 to 300	300	513	\$ 70.19	\$ 75.01	\$ 105.76	\$ 4.83	\$ 35.57		
301 to 400	400	268	\$ 85.49	\$ 91.35	\$ 135.35	\$ 5.87	\$ 49.86		
401 to 500	500	175	\$ 100.78	\$ 107.69	\$ 164.94	\$ 6.91	\$ 64.15		
501 to 600	600	122	\$ 116.08	\$ 124.03	\$ 194.52	\$ 7.95	\$ 78.44		
Over 600	650	146	\$ 123.73	\$ 132.20	\$ 209.32	\$ 8.47	\$ 85.59		

Usage Range	High End of Range	November Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Beween Current and \$26	Beween Current and \$17		
1 to 10	10	66,736	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)		
11 to 20	20	132,815	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)		
21 to 30	30	121,474	\$ 47.01	\$ 30.90	\$ 25.88	\$ (16.10)	\$ (21.13)		
31 to 50	50	145,469	\$ 47.01	\$ 34.17	\$ 31.79	\$ (12.84)	\$ (15.21)		
51 to 100	100	107,093	\$ 47.01	\$ 42.34	\$ 46.59	\$ (4.67)	\$ (0.42)		
101 to 150	150	13,680	\$ 47.01	\$ 50.51	\$ 61.38	\$ 3.50	\$ 14.37		
151 to 200	200	2,666	\$ 47.01	\$ 58.68	\$ 76.17	\$ 11.67	\$ 29.17		
201 to 300	300	1,080	\$ 47.01	\$ 75.01	\$ 105.76	\$ 28.01	\$ 58.76		
301 to 400	400	239	\$ 47.01	\$ 91.35	\$ 135.35	\$ 44.35	\$ 88.34		
401 to 500	500	108	\$ 47.01	\$ 107.69	\$ 164.94	\$ 60.68	\$ 117.93		
501 to 600	600	64	\$ 47.01	\$ 124.03	\$ 194.52	\$ 77.02	\$ 147.52		
Over 600	650	117	\$ 47.01	\$ 132.20	\$ 209.32	\$ 85.19	\$ 162.31		

Laclede Gas Company / Missouri Gas Energy
GR-2017-0215 / GR-2017-0216

Usage Range	High End of Range	December Bill Distribution	Current Bill With PGA	\$26		\$17		Bill Diff.	Bill Diff.
				Customer Charge	Customer Charge	Customer Charge	Customer Charge	Between Current and \$26	Between Current and \$17
1 to 10	10	13,276	\$ 28.67	\$ 27.63	\$ 19.96	\$ (1.03)	\$ (8.71)		
11 to 20	20	11,475	\$ 37.84	\$ 29.27	\$ 22.92	\$ (8.57)	\$ (14.92)		
21 to 30	30	13,267	\$ 47.01	\$ 30.90	\$ 25.88	\$ (16.10)	\$ (21.13)		
31 to 50	50	45,703	\$ 47.01	\$ 34.17	\$ 31.79	\$ (12.84)	\$ (15.21)		
51 to 100	100	185,052	\$ 47.01	\$ 42.34	\$ 46.59	\$ (4.67)	\$ (0.42)		
101 to 150	150	160,461	\$ 47.01	\$ 50.51	\$ 61.38	\$ 3.50	\$ 14.37		
151 to 200	200	81,680	\$ 47.01	\$ 58.68	\$ 76.17	\$ 11.67	\$ 29.17		
201 to 300	300	48,011	\$ 47.01	\$ 75.01	\$ 105.76	\$ 28.01	\$ 58.76		
301 to 400	400	10,078	\$ 47.01	\$ 91.35	\$ 135.35	\$ 44.35	\$ 88.34		
401 to 500	500	3,010	\$ 47.01	\$ 107.69	\$ 164.94	\$ 60.68	\$ 117.93		
501 to 600	600	1,167	\$ 47.01	\$ 124.03	\$ 194.52	\$ 77.02	\$ 147.52		
Over 600	650	1,059	\$ 47.01	\$ 132.20	\$ 209.32	\$ 85.19	\$ 162.31		