

**Exhibit No:**  
**Issue:** Cost of Service/ Rate  
Design  
**Witness:** Timothy S. Lyons  
**Type of Exhibit:** Surrebuttal  
Testimony  
**Sponsoring Party:** Laclede Gas Company  
Missouri Gas Energy  
**Case Nos.:** GR-2017-0215  
GR-2017-0216  
**Date Prepared:** November 21, 2017

**LACLEDE GAS COMPANY  
MISSOURI GAS ENERGY**

**GR-2017-0215  
GR-2017-0216**

**SURREBUTTAL TESTIMONY**

**OF**

**TIMOTHY S. LYONS**

**NOVEMBER 21, 2017**

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1                   **SURREBUTTAL TESTIMONY OF TIMOTHY S. LYONS**

2   **Q.   PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**  
3           **ADDRESS.**

4   A.   My name is Timothy S. Lyons. I am a Partner at ScottMadden, Inc. My business  
5           address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

6

7   **Q.   ARE YOU THE SAME TIMOTHY S. LYONS WHO PREVIOUSLY**  
8           **SPONSORED DIRECT TESTIMONY AND REBUTTAL TESTIMONY IN**  
9           **THIS PROCEEDING?**

10  A.   Yes, I am. I provided direct testimony (“Direct Testimony”), and rebuttal testimony  
11           (“Rebuttal Testimony”) in this proceeding before the Missouri Public Service  
12           Commission (the “Commission”) on behalf of Laclede Gas (“LAC”) and Missouri  
13           Gas Energy (“MGE”), operating units of Laclede Gas Company (“Laclede” or  
14           “Company”).

15

16                   **I.    PURPOSE OF TESTIMONY**

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

18  A.   The purpose of this surrebuttal testimony (“Surrebuttal Testimony”) is to address  
19           concerns raised in rebuttal testimony by other parties related to LAC and MGE’s  
20           proposed residential and general service rate design. These include:

- 21           • Concerns by Office of Public Council (“OPC”) witness Geoff Marke  
22                 related to LAC and MGE’s proposed Revenue Stabilization Mechanism  
23                 (“RSM”);

- 1           • Concerns by the Missouri Department of Economic Development -  
2           Division of Energy (“DE”) witness Martin R. Hyman related to bill  
3           increases for high-use residential customers, particularly in the winter  
4           months.
- 5           • Concerns relating to the potential customer impacts of any cross subsidies  
6           between the SGS and LGS classes and measures that could be used to  
7           address them.

8

9   **Q.    HAVE YOU PREPARED SCHEDULES SUPPORTING YOUR REBUTTAL**  
10 **TESTIMONY?**

11 A.    Yes.   Schedules TSL-SR1, TSL-SR2 and TSL-SR3 support this Surrebuttal  
12        Testimony.  The Schedules were prepared by me or under my direction and are  
13        incorporated herein by reference.

14

## 15                   **II.    REVENUE STABILIZATION MECHANISM**

16

17 **Q.    WHAT IS OPC’S RECOMMENDATION REGARDING LAC AND MGE’S**  
18 **PROPOSED REVENUE STABILIZATION MECHANISM?**

19 A.    OPC has recommended that the Commission reject the proposed RSM.<sup>1</sup> Dr. Marke  
20        states, “The harm to captive ratepayers outweighs any alleged benefits.”<sup>2</sup>

21

22 **Q.    DO LAC AND MGE AGREE WITH OPC’S RECOMMENDATION?**

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<sup>1</sup> Rebuttal Testimony of Geoff Marke, pg. 10

<sup>2</sup> *Ibid.*

1 A. No, LAC and MGE do not agree with OPC’s recommendation. LAC and MGE  
2 believe that the proposed RSM provides substantial benefits to the Company and  
3 its customers. These include, among other benefits, greater flexibility in designing  
4 rates that enables LAC and MGE to better achieve important rate design objectives,  
5 such as moderating customer bill impacts on low-use customers, helping to further  
6 support customers’ efforts to reduce energy usage, and adopting a simpler rate  
7 design that relies less upon fixed charges.

8

9 **Q. WHAT ARE THE BENEFITS OF THE PROPOSED RSM?**

- 10 A. The proposed RSM would provide a variety of benefits. Specifically, it would:
- 11 1. Stabilize customer bills by providing credits when bills are higher than  
12 normal due to colder weather (and likely higher natural gas prices), and  
13 surcharges when bills are lower than normal due to warmer weather (and  
14 likely lower natural gas prices);
  - 15 2. Provide LAC and MGE with a more stable stream of revenues, and  
16 prevent over-collection and under-collection of fixed costs as actual sales  
17 vary from test year sales due to weather and/ or conservation through  
18 energy efficiency and other measures;
  - 19 3. Eliminate LAC and MGE’s financial disincentive to aggressively promote  
20 conservation through energy efficiency initiatives and programs;
  - 21 4. Reduce utility earnings’ dependence on factors beyond its reasonable  
22 control – namely weather; and

1           5. Provide greater flexibility in rate design so that other objectives – such as  
2           reducing the impact of high fixed charges on low use customers – can be  
3           addressed.

4  
5 **Q. IN WHAT WAYS DOES THE RSM PROVIDE FLEXIBILITY IN RATE**  
6 **DESIGN?**

7 A. Presently, both MGE and LAC’s rate designs are largely based on the objective of  
8 stabilizing the impact of weather on customer bills and utility revenues, with  
9 somewhat less emphasis on other rate design objectives, such as bill continuity and  
10 simplicity. MGE’s current rate design seeks to achieve this objective by imposing  
11 higher fixed monthly charges that recover a greater share of fixed costs. LAC’s  
12 Weather-Mitigated Rate Design (“WMRD”) also seeks to achieve this objective by  
13 a combination of higher fixed monthly charges and recovery of the remaining fixed  
14 costs in the first block of its distribution charges, the impact of which on low use  
15 customers is partially offset by a reduction in the corresponding block of its PGA  
16 charges. With adoption of the RSM, such customer charge levels and complicated  
17 block rate structure are not necessary to mitigate the impact of weather, enabling  
18 LAC and MGE to adopt a more simplified rate design.

19  
20 **Q. ABSENT ADOPTION OF THE PROPOSED RSM, WHAT IS LAC’S**  
21 **PROPOSED RATE DESIGN?**

22 A. Absent adoption of the proposed RSM, LAC proposes to continue its WMRD  
23 largely based on the objective of stabilizing the impact of weather on customer bills

1 and utility revenues. The WMRD would result in higher residential customer  
2 charges and a more complex rate design than that proposed by LAC with the RSM.

3

4 **Q. ABSENT ADOPTION OF THE PROPOSED RSM, WHAT IS MGE'S**  
5 **PROPOSED RATE DESIGN?**

6 A. Absent adoption of the proposed RSM, MGE proposes to adopt a WMRD similar  
7 to LAC's, largely based on the same objective of stabilizing the impact of weather  
8 on customer bills and utility revenues. A WMRD would result in higher customer  
9 charges and a more complex rate design than that proposed by MGE with RSM.

10

11 **Q. GIVEN OPPOSITION IN CERTAIN REBUTTAL TESTIMONY TO THE**  
12 **RSM, PLEASE DESCRIBE WHAT A WMRD RATE DESIGN FOR MGE**  
13 **WOULD LOOK LIKE IF THE RSM WAS NOT APPROVED BY THE**  
14 **COMMISSION.**

15 A. An illustrative rate design and bill impact analysis that demonstrates the impact of  
16 a WMRD on MGE's customers is included in Schedule TSL-SR1.<sup>3</sup> The Schedule  
17 shows that similar to LAC, a WMRD would be based on a higher customer charge  
18 of \$25.50 (as compared to MGE's proposed customer charge of \$20.00 with the  
19 RSM) and two-block, winter distribution rates. Consumption at or below 20 therms  
20 per month would be billed at \$0.72635 per therm; and all other consumption during  
21 the month would be billed at no additional distribution charge. In addition, a  
22 WMRD would reflect two-step, winter PGA rates. Consumption at or below 20

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<sup>3</sup> The illustrative rate design is based on actual bill frequency data, which would need to be normalized for weather if used in development of the final rate design.

1           therms would be billed at \$0.30039 per therm; and all other consumption during  
2           the month would be billed at \$0.54500 per therm.

3                       The Schedule also shows that low-use customer bills would be substantially  
4           higher under a WMRD than MGE’s proposed rate design. For example, under a  
5           WMRD, customers who use on average 327 therms per year would experience an  
6           increase of \$61.00 per year, or 13.0 percent on their total bill. Under MGE’s  
7           proposed rate design, such customers would experience a decrease of \$7.00 per  
8           year, or 1.0 percent on their total bill.

9  
10 **Q.    WOULD IMPLEMENTATION OF A WMRD FOR MGE HAVE A MORE**  
11 **FAVORABLE IMPACT ON LOW USE CUSTOMERS THAN A STRAIGHT-**  
12 **FIXED VARIABLE APPROACH WHICH RECOVERED ALL FIXED**  
13 **CHARGES IN THE CUSTOMER CHARGE?**

14 A.    Yes, a WMRD would have a more favorable impact on low-use customers than a  
15       straight fixed variable rate design; however, a WMRD would not be as favorable  
16       as the proposed RSM principally due to the lower customer charge the latter  
17       enables.

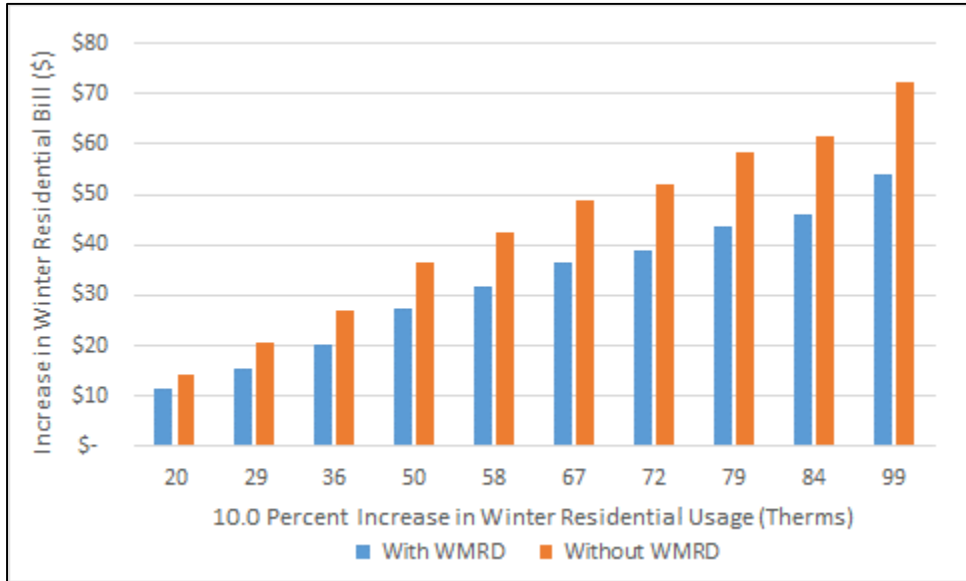
18  
19 **Q.    WOULD IMPLEMENTATION OF A WMRD FOR MGE HELP MITIGATE**  
20 **THE IMPACT OF WEATHER ON CUSTOMER BILLS AND UTILITY**  
21 **REVENUES?**

22 A.    Yes, a WMRD would help mitigate the impact of weather on customer bills and  
23       utility revenues, as shown in Figure 1; however, a WMRD would not mitigate the



1 impact of weather on customer bills and utility revenues as much as the proposed  
2 RSM.

3 **Figure 1: Increase in Annual Bills With & Without WMRD**



4  
5  
6 Figure 1 shows increases in winter (November through April) residential  
7 bills resulting from a 10.0 percent increase in winter usage. The increases are  
8 shown with and without a WMRD. The Figure shows that residential customers  
9 whose winter usage increases by 84 therms would experience a lower bill increase  
10 of \$46.00 under a WMRD than the bill increase of \$62.00 under a tradition, non-  
11 WMRD. Conversely, the revenue impacts on the Company without the WMRD  
12 or RSM would equate to millions of dollars in additional recoveries or additional  
13 losses for fixed costs depending on whether to what extent the weather was colder  
14 or warmer than the normal used to set rates.

15  
16 **Q. WHAT IS LAC AND MGE'S CONCLUSION?**

1 A. LAC and MGE continue to believe that the proposed RSM provides substantial  
2 benefits that include: (a) flexibility in rate design, which enables them to better  
3 achieve important rate design objectives, (b) moderating customer bill impacts on  
4 low use customers, (c) bringing greater stability to customers' bills, (d) protecting  
5 LAC and MGE and their customers from the vagaries of factors that are beyond  
6 their reasonable control, such as weather, (e) further promoting customer efforts to  
7 reduce energy consumption, and (f) adopting a simpler rate design. As shown on  
8 figure 1, I would note that any proposals to reduce the customer charge without an  
9 RSM would create even more variability for both the customer and the Company.  
10

11 **III. BILL IMPACT ON HIGH USAGE CUSTOMERS**

12  
13 **Q. PLEASE SUMMARIZE DE'S CONCERNS ON LAC'S PROPOSED**  
14 **RESIDENTIAL RATES?**

15 A. DE has raised concerns related to bill increases on LAC's high-use residential  
16 customers during the winter months.<sup>4</sup> DE has recommended LAC establish a  
17 temporary winter tail block rate design to apply to LAC's high usage customers.  
18 As DE witness Hyman states, "While DE supports movement towards flat or  
19 inclining block rates, DE also supports gradual changes in rate design to avoid 'rate  
20 shock'."<sup>5</sup>  
21

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<sup>4</sup> Rebuttal Testimony of Martin R. Hyman, pgs. 16-17  
<sup>5</sup> *Id.*, pg. 16

1 **Q. DOES THE COMPANY AGREE THAT A TAIL BLOCK RATE DESIGN**  
2 **WOULD REDUCE BILL IMPACTS ON HIGH-USE RESIDENTIAL**  
3 **CUSTOMERS IN THE WINTER MONTHS?**

4 A. Yes, the Company agrees with DE's conclusion that mathematically a lower tail  
5 block rate design in the winter months would reduce the bill impact on LAC's high-  
6 use residential customers in the winter months. The winter tail block rate design,  
7 however, would also increase the bill impacts on low-use residential customers.

8 An illustrative rate design and bill impact analysis that demonstrates the  
9 impact of a winter tail block rate design on high-use customers is included in  
10 Schedule TSL-SR2.<sup>6</sup> The Schedule shows a winter tail block rate design based on  
11 a customer charge of \$17.00 (consistent with the proposed customer charge of  
12 \$17.00) and two-block, winter distribution rates. Consumption at or below 90  
13 therms would be billed at \$0.53759 per therm; and all other consumption would be  
14 billed at \$0.05000.

15 The Schedule shows that annual bills for high-use customers are lower  
16 under a winter tail block rate design than LAC's proposed rate design. For example,  
17 under a winter tail block rate design, LAC customers who use on average 1,448  
18 therms per year (representing the top 9.1% of usage) would experience an increase  
19 in their annual bill of \$97.00, or 8.0 percent (about \$8.00/month), as compared to  
20 LAC's proposed rate design in which such customers would experience an increase  
21 in their annual bill of \$242.00, or 20.0 percent (about \$20.00/month).

22

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<sup>6</sup> The illustrative rate design is based on actual bill frequency data, which would need to be normalized for weather if used in development of the final rate design.

1 **Q. WHAT IS THE IMPACT OF A WINTER TAIL BLOCK RATE DESIGN ON**  
2 **LAC'S LOW-USE RESIDENTIAL CUSTOMERS?**

3 A. Schedule TSL-SR2 further shows the impact of a winter tail block rate design on  
4 LAC's low-use residential customers. The Schedule shows that annual bills for  
5 low-use customers are higher under a winter tail block rate design than LAC's  
6 proposed rate design. For example, under a winter tail block rate design, LAC's  
7 customers who use on average 376 therms per year would experience a decrease of  
8 \$29.00 per year, or 5.0 percent. Under LAC's proposed rate design, such low-use  
9 customers would experience a decrease of \$80.0 per year, or 13.0 percent.

10

11 **Q. WHAT IS LAC'S CONCLUSION?**

12 A. LAC continues to support the proposed rate design; however, to the extent that the  
13 Commission believes that bill increases on high-use customers should be mitigated,  
14 then DE's proposed winter tail block rate design could be a reasonable way to  
15 address the concern. At the same time, however, such an approach would dampen  
16 the price signal for energy efficiency, complicate the rate design and create a need  
17 for further changes to customer rates in the future.

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**IV. MGE’S SGS AND LGS RATE DESIGN**

**Q. PLEASE EXPLAIN WHY MGE’S LGS CUSTOMERS WOULD RECEIVE A LOWER BILL UNDER THE PROPOSED LGS RATES FOR THE SAME USAGE THAN IF SERVED UNDER THE PROPOSED SGS RATES.<sup>7</sup>**

A. As explained in Rebuttal Testimony, there is a cross-subsidy in rates between MGE’s SGS and LGS rate classes that results in lower bills for the same usage if LGS customers are billed under the proposed SGS rates as compared to the proposed LGS rates. While it would be desirable to eliminate such cross-subsidy to better reflect the underlying cost of service differences between the SGS and LGS classes, MGE recognizes that in the interest of bill continuity concerns, such disparity should be addressed over time as reflected in the proposed rate design.

As explained in Rebuttal Testimony, there are also potential variations to the proposed rate design that could help reduce the disparity.

**Q. PLEASE DESCRIBE POTENTIAL VARIATIONS IN THE RATE DESIGN THAT COULD HELP REDUCE THE DISPARITY BETWEEN THE SGS AND LGS RATES AND UNDERLYING COST OF SERVICE.**

A. Potential variations in the rate design that could help reduce the disparity between the SGS and LGS rates and underling cost of service include:

- Reducing the subsidy to the SGS rate class
- Reducing the customer charge to the SGS rate class

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<sup>7</sup> Staff proposes one General Service class while the Company proposes two General Service classes, Small General Service (“SGS”) and Large General Service (“LGS”), as referenced in the Rebuttal Testimony of Robin Kliethermes, pg. 10.

- 1 • Increasing the customer charge to the LGS rate class
- 2 • Some combination of the above

3

4 **Q. PLEASE DESCRIBE THE ILLUSTRATIVE RATE DESIGN AND BILL**  
5 **IMPACT ANALYSIS THAT REFLECTS ELIMINATING THE CROSS**  
6 **SUBSIDY BETWEEN THE SGS AND LGS RATE CLASSES.**

7 A. An illustrative rate design and bill impact analysis that reflects eliminating the  
8 cross-subsidy between the SGS and LGS rate classes is included in Schedule TSL-  
9 SR3, page 1. The illustrative rate design is based on MGE's proposed customer  
10 charges. The Schedule shows that eliminating the cross-subsidy between the SGS  
11 and LGS rate classes would increase volumetric rates for the SGS class and  
12 decrease volumetric rates for the LGS.

13 The Schedule also shows that for approximately 50.0 percent of the  
14 consumption in the LGS rate class, the illustrative rate design would result in lower  
15 annual bills for the same usage if LGS customers are billed under the LGS rates as  
16 compared to the SGS rates. For example, by eliminating the cross-subsidy, LGS  
17 customers who use on average 50,000 therms per year would experience under the  
18 LGS rates (as compared to the SGS rates) a lower annual distribution bill of \$1,091,  
19 or 16.2 percent. Customers who use at least 50,000 therms per year include schools,  
20 hotels, hospitals and industry.

21 It is important to note that eliminating the cross-subsidy has other  
22 implications on the SGS and LGS rate classes as compared to the proposed rate

1 design, including increases in bill impacts on SGS customers and decreases in bill  
2 impacts on LGS customers.

3

4 **Q. PLEASE DESCRIBE THE RATE DESIGN AND BILL IMPACT THAT**  
5 **REFLECTS REDUCING THE SGS CUSTOMER CHARGE.**

6 A. An illustrative rate design and bill impact analysis that reflects reducing the SGS  
7 customer charge is included in Schedule TSL-SR3, page 2. The illustrative rate  
8 design is based on the proposed revenue targets for the SGS and LGS rate classes.  
9 The Schedule shows that reducing the SGS customer charge to \$30.00 would  
10 increase volumetric rates for the SGS class.

11 The Schedule also shows that for approximately 50.0 percent of the  
12 consumption in the LGS rate class, the illustrative rate design would result in lower  
13 annual bills for the same usage if LGS customers are billed under the LGS rates as  
14 compared to the SGS rates. For example, by reducing the reducing the SGS  
15 customer charge to \$30.00, LGS customers who use on average 50,000 therms per  
16 year would experience a lower annual distribution bill of \$1,094, or 13.6 percent,  
17 under the LGS rates as compared to the SGS rates.

18 Again, it is important to note that reducing the SGS customer charge has  
19 other implications on the SGS rate class as compared to the proposed rate design,  
20 including changes in bill impacts on SGS customers.

21

1 **Q. PLEASE DESCRIBE THE RATE DESIGN AND BILL IMPACT ANALYSIS**  
2 **THAT REFLECTS REDUCING THE SGS CUSTOMER CHARGE AND**  
3 **INCREASING THE LGS CUSTOMER CHARGE.**

4 A. An illustrative rate design and bill impact analysis that reflects reducing the SGS  
5 customer charge and increasing the LGS customer charge is included in Schedule  
6 TSL-SR3, page 3. The illustrative rate design is based on the proposed revenue  
7 targets for the SGS and LGS rate classes. The Schedule shows that reducing the  
8 SGS customer charge to \$30.00 and increasing the LGS customer charge to \$200.00  
9 would increase volumetric rates for the SGS class and reduce volumetric rates for  
10 the LGS rate class.

11 The Schedule also shows that for approximately 50.0 percent of the  
12 consumption in the LGS rate class, the illustrative rate design would result in lower  
13 annual bills for the same usage if LGS customers are billed under the LGS rates as  
14 compared to the SGS rates. For example, by reducing the SGS customer charge to  
15 \$30.00 and increasing the LGS customer charge to \$200.00, LGS customers who  
16 use on average 50,000 therms per year would experience a lower annual distribution  
17 bill of \$2,169, or 31.0 percent, under the LGS rates as compared to the SGS rates.

18

19 **Q. WHAT IS MGE's CONCLUSION?**

20 A. MGE continues to support the proposed rate design, including separate rate classes  
21 for customers who use less than 10,000 therms per year (i.e., SGS rate class) and  
22 those who use at least 10,000 therms per year (i.e., LGS rate class). This distinction  
23 is important since there are cost of service differences between SGS and LGS



1 customers. For example, the average cost per meter for a SGS customer is \$249.51;  
2 whereas, the average cost per meter for a LGS customer is \$1,130.27.

3 However, to the extent that the Commission believes that disparity between  
4 the SGS and LGS rate design should be addressed, there are several options to  
5 address the concern including reducing subsidy, reducing SGS customer charges,  
6 and increasing LGS customers, or some combination. It is important to note that  
7 any of the options will have other implications on customers in the SGS and LGS  
8 rate classes.

9

10 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

11 **A.** Yes, it does.

## MISSOURI GAS ENERGY

### Weather Mitigated Rate Design

Weather Mitigated Rate Design	Rates	Units	Revenues
Customer Charge	\$ 25.50	5,621,516	\$ 143,348,664
Nov-Apr (First Step)	\$ 0.72635	57,941,096	42,085,303
Nov-Apr (Second Step)		225,063,277	-
May-Oct	\$ 0.14871	83,143,988	12,364,261
<b>Total</b>		<b>366,148,361</b>	<b>197,798,228</b>
Nov-Apr (First Step)	20		
May-Oct (First Step)	-		
<b>PGA Rates</b>			
	<u>Total Use</u>	<u>Peak Use</u>	<u>Off-Peak Use</u>
Usage	366,148,361	283,004,373	83,143,988
Current PGA Rate	\$ 0.49492	\$ 0.49492	\$ 0.49492
Total PGA Revenues	\$ 181,214,147	\$ 140,064,524	\$ 41,149,623
<b>Calculated PGA Rates</b>			
First Step		\$ 0.30039	
Second Step		\$ 0.54500	\$ 0.49492
<b>Sales Volumes</b>			
Nov-Apr (First Step)	57,941,096	57,941,096	
Nov-Apr (Second Step)	308,207,265	225,063,277	83,143,988
<b>PGA Revenues</b>			
Nov-Apr (First Step)	\$ 17,405,038	\$ 17,405,038	
Nov-Apr (Second Step)	\$ 163,809,109	\$ 122,659,486	\$ 41,149,623
<b>Total</b>	<b>\$ 181,214,147</b>	<b>\$ 140,064,524</b>	<b>\$ 41,149,623</b>

### Proposed Rate Design

Residential Rate Design	Rate	Units	Revenues
		BF Adjustment	\$ 197,798,228
<b>Proposed Rates</b>			
Customer Charge	\$ 20.00	5,621,516	\$ 112,430,325
Volume Charge	0.23315	366,148,361	85,367,903
Revenue at Proposed Rates			\$ 197,798,228

## MISSOURI GAS ENERGY

### Weather Mitigated Rate Design

Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
			WMRD Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	WMRD Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
227	6.3%	1.5%	\$ 396	\$ 316	\$ 80	25%	\$ 489	\$ 428	\$ 61	14%
327	13.4%	4.7%	\$ 400	\$ 323	\$ 76	24%	\$ 547	\$ 485	\$ 61	13%
426	25.1%	11.9%	\$ 401	\$ 330	\$ 71	22%	\$ 601	\$ 541	\$ 60	11%
575	49.0%	31.0%	\$ 404	\$ 341	\$ 63	19%	\$ 685	\$ 626	\$ 59	9%
675	64.1%	45.7%	\$ 406	\$ 348	\$ 58	17%	\$ 740	\$ 682	\$ 58	8%
775	75.8%	58.9%	\$ 408	\$ 356	\$ 53	15%	\$ 796	\$ 739	\$ 57	8%
825	80.2%	64.5%	\$ 410	\$ 359	\$ 50	14%	\$ 824	\$ 768	\$ 57	7%
923	86.8%	73.4%	\$ 411	\$ 366	\$ 45	12%	\$ 879	\$ 823	\$ 56	7%
974	89.2%	76.9%	\$ 412	\$ 370	\$ 42	11%	\$ 907	\$ 852	\$ 55	6%
1,147	95.0%	86.4%	\$ 416	\$ 383	\$ 33	9%	\$ 1,004	\$ 950	\$ 54	6%

### Proposed Rate Design

Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
			Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
227	6%	1%	\$ 293	\$ 316	\$ (23)	-7%	\$ 405	\$ 428	\$ (23)	-5%
327	13%	5%	316	323	(7)	-2%	478	485	(7)	-1%
426	25%	12%	339	330	9	3%	550	541	9	2%
575	49%	31%	374	341	33	10%	659	626	33	5%
675	64%	46%	397	348	49	14%	731	682	49	7%
775	76%	59%	421	356	65	18%	804	739	65	9%
825	80%	64%	432	359	73	20%	841	768	73	10%
923	87%	73%	455	366	89	24%	912	823	89	11%
974	89%	77%	467	370	97	26%	949	852	97	11%
1,147	95%	86%	507	383	125	33%	1,075	950	125	13%

## LACLEDE GAS COMPANY

### Winter Tail Block Rate Design

Winter Tail Block Rate Design			
Customer Charge	\$ 17.00	7,267,620	\$ 123,549,540
Nov-Apr (First Step)	\$ 0.53759	282,649,857	151,948,803
Nov-Apr (Second Step)	\$ 0.05000	135,452,255	6,772,613
May-Oct	\$ 0.37962	70,083,371	26,605,299
Total		488,185,483	308,876,255
Nov-Apr (First Step)	90		

### LAC Proposed Rate Design

Residential Rate Design	Rate	Units	Revenues
		BF Adjustment	\$ 308,876,255
<b>Proposed Rates</b>			
Customer Charge	\$ 17.00	7,267,620	\$ 123,549,540
Consumption Charge	\$ 0.37962	488,185,483	185,326,715
Revenue at Proposed Rates			\$ 308,876,255

**LACLEDE GAS COMPANY**

**Annual Bill Impacts: Winter Tail Block Rate Design**

Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
			Winter TB Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Winter TB Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
226	5.1%	1.1%	\$ 321	\$ 430	\$ (110)	-26%	\$ 429	\$ 509	\$ (80)	-16%
376	14.8%	5.7%	\$ 397	\$ 457	\$ (59)	-13%	\$ 577	\$ 606	\$ (29)	-5%
476	27.0%	13.5%	\$ 444	\$ 463	\$ (19)	-4%	\$ 671	\$ 664	\$ 8	1%
525	34.5%	19.1%	\$ 463	\$ 465	\$ (3)	-1%	\$ 714	\$ 691	\$ 22	3%
725	64.1%	46.1%	\$ 508	\$ 474	\$ 33	7%	\$ 854	\$ 804	\$ 50	6%
824	75.0%	58.4%	\$ 525	\$ 478	\$ 46	10%	\$ 918	\$ 858	\$ 60	7%
974	85.7%	72.3%	\$ 551	\$ 485	\$ 67	14%	\$ 1,017	\$ 942	\$ 75	8%
1,247	94.7%	86.5%	\$ 588	\$ 494	\$ 94	19%	\$ 1,184	\$ 1,093	\$ 91	8%
1,448	96.9%	90.9%	\$ 608	\$ 501	\$ 107	21%	\$ 1,299	\$ 1,203	\$ 97	8%
1,848	98.7%	95.2%	\$ 647	\$ 511	\$ 136	27%	\$ 1,530	\$ 1,418	\$ 111	8%

**Annual Bill Impacts: LAC Proposed Rate Design**

Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Annual Bill (w/ PGA)			
			Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)	Proposed Annual Bill	Current Annual Bill	Difference (\$)	Difference (%)
226	5.1%	1.1%	\$ 290	\$ 430	\$ (141)	-33%	\$ 398	\$ 509	\$ (110)	-22%
376	14.8%	5.7%	\$ 347	\$ 457	\$ (110)	-24%	\$ 526	\$ 606	\$ (80)	-13%
476	27.0%	13.5%	\$ 385	\$ 463	\$ (79)	-17%	\$ 612	\$ 664	\$ (52)	-8%
525	34.5%	19.1%	\$ 403	\$ 465	\$ (62)	-13%	\$ 654	\$ 691	\$ (37)	-5%
725	64.1%	46.1%	\$ 479	\$ 474	\$ 5	1%	\$ 825	\$ 804	\$ 22	3%
824	75.0%	58.4%	\$ 517	\$ 478	\$ 39	8%	\$ 911	\$ 858	\$ 52	6%
974	85.7%	72.3%	\$ 574	\$ 485	\$ 89	18%	\$ 1,039	\$ 942	\$ 97	10%
1,247	94.7%	86.5%	\$ 677	\$ 494	\$ 183	37%	\$ 1,273	\$ 1,093	\$ 180	17%
1,448	96.9%	90.9%	\$ 754	\$ 501	\$ 253	50%	\$ 1,445	\$ 1,203	\$ 242	20%
1,848	98.7%	95.2%	\$ 905	\$ 511	\$ 394	77%	\$ 1,788	\$ 1,418	\$ 370	26%

## MISSOURI GAS ENERGY

### Eliminate SGS and LGS Subsidies

New Rates		Customer Chg	Peak Charge	Off-Peak Charge				
SGS Class	\$	40.00	\$ 0.14674					
LGS Class	\$	125.00	\$ 0.12174	\$ 0.07017				
<b>Bill Impact Analysis</b>								
Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Difference (\$)	Difference (%)
			New SGS Bill	New LGS Bill				
10,500	6%	3%	\$ 2,021	\$ 2,597	\$ (577)	-22.2%		
12,500	26%	13%	\$ 2,314	\$ 2,806	\$ (492)	-17.5%		
15,000	43%	22%	\$ 2,681	\$ 3,068	\$ (387)	-12.6%		
17,500	54%	31%	\$ 3,048	\$ 3,329	\$ (281)	-8.4%		
20,000	63%	38%	\$ 3,415	\$ 3,590	\$ (176)	-4.9%		
25,000	74%	48%	\$ 4,148	\$ 4,113	\$ 35	0.9%		
50,000	94%	77%	\$ 7,817	\$ 6,726	\$ 1,091	16.2%		
75,000	98%	86%	\$ 11,485	\$ 9,339	\$ 2,146	23.0%		
125,000	99%	93%	\$ 18,822	\$ 14,565	\$ 4,257	29.2%		
250,000	100%	98%	\$ 37,164	\$ 27,630	\$ 9,535	34.5%		

### Proposed Rate Design and Bill Impact

New Rates		Customer Chg	Peak Charge	Off-Peak Charge				
SGS Class	\$	40.00	\$ 0.11273					
LGS Class	\$	125.00	\$ 0.15293	\$ 0.08814				
<b>Bill Impact Analysis</b>								
Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)				Difference (\$)	Difference (%)
			New SGS Bill	New LGS Bill				
10,500	6%	3%	\$ 1,664	\$ 2,879	\$ (1,215)	-42.2%		
12,500	26%	13%	\$ 1,889	\$ 3,141	\$ (1,252)	-39.9%		
15,000	43%	22%	\$ 2,171	\$ 3,469	\$ (1,298)	-37.4%		
17,500	54%	31%	\$ 2,453	\$ 3,798	\$ (1,345)	-35.4%		
20,000	63%	38%	\$ 2,735	\$ 4,126	\$ (1,391)	-33.7%		
25,000	74%	48%	\$ 3,298	\$ 4,782	\$ (1,484)	-31.0%		
50,000	94%	77%	\$ 6,116	\$ 8,065	\$ (1,948)	-24.2%		
75,000	98%	86%	\$ 8,935	\$ 11,347	\$ (2,412)	-21.3%		
125,000	99%	93%	\$ 14,571	\$ 17,912	\$ (3,340)	-18.6%		
250,000	100%	98%	\$ 28,662	\$ 34,323	\$ (5,661)	-16.5%		

## MISSOURI GAS ENERGY

### Reduce SGS Customer Charge

New Rates		Customer Chg	Peak Charge	Off-Peak Charge	
SGS Class	\$	30.00	\$ 0.17597		
LGS Class	\$	125.00	\$ 0.15293	\$	0.08814

Bill Impact Analysis						
Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)			
			New SGS Bill	New LGS Bill	Difference (\$)	Difference (%)
10,500	6%	3%	\$ 2,208	\$ 2,879	(\$ 671)	-23.3%
12,500	26%	13%	\$ 2,560	\$ 3,141	(\$ 582)	-18.5%
15,000	43%	22%	\$ 3,000	\$ 3,469	(\$ 470)	-13.5%
17,500	54%	31%	\$ 3,439	\$ 3,798	(\$ 358)	-9.4%
20,000	63%	38%	\$ 3,879	\$ 4,126	(\$ 246)	-6.0%
25,000	74%	48%	\$ 4,759	\$ 4,782	(\$ 23)	-0.5%
50,000	94%	77%	\$ 9,158	\$ 8,065	\$ 1,094	13.6%
75,000	98%	86%	\$ 13,558	\$ 11,347	\$ 2,211	19.5%
125,000	99%	93%	\$ 22,356	\$ 17,912	\$ 4,444	24.8%
250,000	100%	98%	\$ 44,352	\$ 34,323	\$ 10,029	29.2%

## MISSOURI GAS ENERGY

### Reduce SGS and Increase LGS Customer Charges

New Rates		Customer Chg	Peak Charge	Off-Peak Charge	
SGS Class	\$	30.00	\$ 0.17597		
LGS Class	\$	200.00	\$ 0.10692	\$	0.06163

Bill Impact Analysis						
Annual Use	Cumulative Bills	Cumulative Use	Annual Bill (w/o PGA)			
			New SGS Bill	New LGS Bill	Difference (\$)	Difference (%)
10,500	6%	3%	\$ 2,208	\$ 3,364	\$ (1,156)	-34.4%
12,500	26%	13%	\$ 2,560	\$ 3,547	\$ (988)	-27.8%
15,000	43%	22%	\$ 3,000	\$ 3,777	\$ (777)	-20.6%
17,500	54%	31%	\$ 3,439	\$ 4,006	\$ (567)	-14.2%
20,000	63%	38%	\$ 3,879	\$ 4,236	\$ (357)	-8.4%
25,000	74%	48%	\$ 4,759	\$ 4,695	\$ 64	1.4%
50,000	94%	77%	\$ 9,158	\$ 6,990	\$ 2,169	31.0%
75,000	98%	86%	\$ 13,558	\$ 9,285	\$ 4,273	46.0%
125,000	99%	93%	\$ 22,356	\$ 13,875	\$ 8,481	61.1%
250,000	100%	98%	\$ 44,352	\$ 25,349	\$ 19,003	75.0%



**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

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

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

AFFIDAVIT

COMMONWEALTH OF MASSACHUSETTS )  
 ) SS.  
COUNTY OF WORCESTER )

Timothy S. Lyons, of lawful age, being first duly sworn, deposes and states:

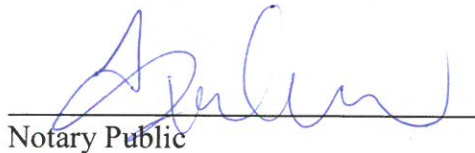
1. My name is Timothy S. Lyons and I am a Partner at ScottMadden Inc. My business address is 1900 West Park Drive, Suite 250, Westborough, MA 01581.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony on class cost of service and rate design on behalf of Laclede Gas Company and MGE.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.



\_\_\_\_\_  
Timothy S. Lyons

Subscribed and sworn to before me this 14th day of November, 2017.



  
\_\_\_\_\_  
Notary Public