**Exhibit No.:** 

**Issue:** Energy Efficiency Programs

Witness: James Travis

Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Laclede Gas Company

Case No.: EO-2012-0142

**Date Testimony** 

Prepared: April 13, 2012

### LACLEDE GAS COMPANY

EO-2012-0142

## REBUTTAL TESTIMONY

**OF** 

**JAMES TRAVIS** 

St. Louis, Missouri April 2012

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1 2 3 4 5		REBUTTAL TESTIMONY OF JAMES TRAVIS
6 7		CASE NO. EO-2012-0142
8		INTRODUCTION
9	Q.	Please state your name and address?
10	A.	My name is James Travis and my business address is 720 Olive Street, St. Louis,
11		Missouri 63101.
12	Q.	What is your present position?
13	A.	I am a Project Support Specialist in the Utilization Engineering Department at Laclede
14		Gas Company ("Laclede" or "Company").
15	Q.	Please state how long you have held your present position, and briefly describe your
16		responsibilities.
17	A.	I was assigned to my present position in January 2011. In this position I am primarily
18		responsible for the administration of Laclede's existing energy efficiency rebate
19		programs. I also represent Laclede on its Energy Efficiency Collaborative ("EEC")
20		which is responsible for the development, implementation, and delivery of cost-effective
21		conservation and energy efficiency programs to Laclede's residential and
22		commercial/industrial customers. I also assist Laclede's residential and commercial
23		customers with questions regarding the proper installation of natural gas appliances. I
24		advise customers on the proper use of natural gas applicable to all current codes and
25		standards.
26	Q.	Please describe your experience with Laclede.

- I joined Laclede in March 1988 as a Commercial Sales Representative in the Commercial A. Sales Department. There, I worked with builders, contractors, and developers, as well as new customers on the selection of natural gas appliances and installation of natural gas facilities for new and renovated business establishments. In July 1997 I was assigned to the Marketing Department as a Division Coordinator where I coordinated departmental responsibilities in preparing capital and operating budgets for Laclede's Missouri Natural division. In July 1998 I was assigned to the engineering and drafting department as Assistant Superintendent of Load Approval. In this position I oversaw the design of new natural gas mains and services to residential subdivisions, working with civil engineers and local homebuilders and developers while also supervising a team of four Laclede union field representatives and three clerks. In May 2001, I was promoted to Industrial Sales Representative, returning to the Marketing Department as an account representative to Laclede's largest industrial customers. In this position I was responsible for developing and executing customer contracts, conducting billing reviews, and preparing gas equipment use analyses.
- 16 Q. What is your educational background?
- 17 A. I graduated from the University of Missouri St. Louis in August 1985, with the degree
   18 of Bachelor of Science in Business Administration, majoring in Marketing.
- 19 Q. Have you previously submitted testimony before the Missouri Public Service 20 Commission?
- 21 A. No.

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#### PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the basic purpose of your rebuttal testimony in this proceeding?

1	A.	The purpose of my rebuttal testimony is to:
2 3 4		1. encourage the pursuit of joint gas-electric energy efficiency ("EE") programs where they may be beneficial to customers; and
5 6 7 8		2. advocate for demand side programs that promote the most cost-effective and efficient fuel source for a given application, or alternatively, oppose programs that result in fuel switching to a less efficient fuel source.
9	Q.	Please briefly summarize the EE programs proposed by Ameren Missouri
10		("Ameren") in this case.
1	A.	Ameren Missouri is proposing seven residential and four business (commercial) EE programs.
12		The residential programs include:
13 14 15 16 17 18		<ul> <li>Residential Lighting</li> <li>Residential Energy Efficient Products</li> <li>Residential HVAC</li> <li>Residential Refrigerator Recycling</li> <li>Residential Home Energy Performance</li> <li>Residential Energy Star New Homes</li> <li>Residential Low Income</li> </ul>
20		The business programs include:
21 22 23 24 25 26		<ul> <li>Business Standard Incentive Program</li> <li>Business Custom Incentive Program</li> <li>Business Retro-Commissioning Incentive Program</li> <li>Business New Construction</li> </ul> Ameren's programs generally provide financial incentives for customers to replace
27		legacy appliances in their homes and businesses with more energy efficient electric
28		appliances. While its program templates, set forth in Appendix B to the MEEIA Filing
29		Report (the "Report"), provide helpful outlines of the various programs, they do not drill
30		down to the level of identifying the details of individual measures or the amount of
31		financial incentives to be provided for such measures.

JOINT GAS-ELECTRIC EE PROGRAMS

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- Q. Although Ameren is still developing the detail for its EE programs, can Laclede identify any residential programs that may benefit from a joint natural gas-electric approach?
- 4 A. Yes. First, I would note that in Eastern Missouri where Ameren and Laclede both
  5 operate, the large majority of Ameren's customers are also Laclede customers. Those
  6 customers will bear the costs of both Laclede's and Ameren's EE programs. Laclede
  7 believes that pursuing opportunities for Ameren and Laclede to jointly deliver measures
  8 or programs where feasible improves the cost-effectiveness of such programs to all
  9 customers, participants and non-participants alike. In other words, energy efficiency
  10 should be delivered efficiently.
  - Q. With that in mind, what kind of programs best lend themselves to joint delivery?
- 12 A. One example of such a program is the Residential Home Energy Performance Program 13 ("HEP"). As described by Ameren, this program focuses on a "whole house approach," 14 and begins with a contractor performing an energy audit and recommending measures based on the audit findings. However, as Ameren notes, a full-scale home energy audit 15 can be expensive.<sup>3</sup> Therefore, it is seldom cost-effective for either Laclede or Ameren to 16 17 pay for an energy audit for their own individual fuel source. However, that obstacle may 18 be hurdled if the companies share the cost of an audit that may identify measures that 19 reduce both gas and electric usage. For example, an energy audit that results in an

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<sup>&</sup>lt;sup>1</sup> Pursuant to the MEEIA, Ameren is justified in recovering lost revenues resulting from lower electric usage consumed by more efficient equipment. However, Laclede's rate design is structured in a manner that eliminates most of the adverse financial consequences of lower energy use.

<sup>&</sup>lt;sup>2</sup> Report, Appendix B, p. 14

- 1 expenditure for insulation or air sealing can lower cooling costs in the summer and 2 heating costs in the winter.
- 3 But on page 111 of the Report, Ameren states its view that the HEP Program will be Q. 4 difficult to implement, and Ameren has allocated only a very small budget to it. Is 5 the HEP Program really worthwhile?
- 6 A. Although we understand Ameren's concerns, we believe that it can be. Ameren does 7 intend to offer the program to duel electric-gas customers, but all of the money would 8 come out of Ameren's pocket, since it is targeting only those dual fuel customers that are 9 both served by Ameren. Sharing the HEP program and its funding with Laclede both 10 eases the burden on Ameren of bearing the entire cost of energy audits and opens the 11 program up to a much larger population. Moreover, there is already precedent for such 12 partnerships in Missouri, as MGE and KCP&L are partnering on a Home Performance 13 with Energy Star Program.
- 14 Q. What other residential EE programs are suitable for joint delivery?
- 15 Α. Laclede believes that the Residential Low Income Program provides opportunities for 16 joint delivery. Ameren formerly had a Multi-Family Income Qualified Program that was

<sup>&</sup>lt;sup>3</sup> Report, p. 111

managed by Honeywell. Like the HEP Program, it requires an upfront expenditure for a contractor to identify cost-effective measures. Again, teaming up to share the cost of a contractor who could identify measures that reduce usage for both utilities would benefit both the companies and their customers. In fact, it may be even more useful to further share the costs by including the applicable water company, as Ameren has identified the installation of low flow faucets and showerheads as potential measures.<sup>4</sup>

#### Q. Are there any others?

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Actually, Laclede and Ameren could also share the costs of the educational component of programs, as both gas and electric companies tend to promote similar organizations and products. Further, since customers often consider replacing their air conditioning units at the same time they replace furnaces, and vice versa, joint delivery of a Residential HVAC program could motivate customers to double their energy efficiency investments by installing a high efficiency condensing gas furnace along with a high-efficiency electric air conditioner, thus creating year-round energy savings.

#### O. Please continue.

A. Ameren and Laclede should also partner in the implementation of a Residential Energy Star® New Homes program. As with residential customers, Ameren's local home builders are also Laclede's local home builders. In new home subdivision developments where both electric and natural gas utility infrastructure are available, both utilities are working with these builders to provide service. For years now Laclede has worked in

<sup>&</sup>lt;sup>4</sup> Report, Appendix B, p. 22

1		partnership with local homebuilding companies on incorporating "green" building
2		guidelines that encourages resource efficiency as well as energy efficiency. Creating a
3		partnership in a New Homes program that further encourages builders to install high
4		efficiency electric air conditioners and high efficiency gas furnaces, along with building
5		envelope enhancements like insulation, windows, and air-sealing means that a new home
6		has integrated energy efficiency at a stage when it is most cost-effective.
7	Q.	What about Ameren's Residential Lighting and Refrigerator Recycling Programs?
8	A.	No. Some appliances are better suited to gas as the fuel source, and some are better
9		suited to electricity. Lights and refrigerators are two that are better suited to electricity.
10	Q.	Are any of Ameren's business EE programs suitable for joint gas-electric
11		implementation?
12	A.	By all means yes. Again, like the residential sector many of Ameren's commercial,
13		industrial, and institutional customers are also customers of Laclede. Natural gas

industrial, and institutional customers are also customers of Laclede. Natural gas equipment can be found in most of these facilities' mechanical rooms and foodservice operations. There would be advantages to partnerships between Ameren and Laclede on the Business Standard Incentive program. Laclede currently offers rebates for energy efficiency technologies that are deemed to be cost-effective. In addition, Laclede currently provides a rebate to these customers towards the cost of an energy audit. The benefit of these audits to the customer would be optimized if the outcome of the audit contained gas, electric and even water efficiency improvements.

Q. Would there be similar advantages to a Laclede and Ameren partnership on Ameren's three other business incentive programs?

Yes, like the previous program mentioned, similar benefits to the commercial and industrial customers could be gained with the Business Retro-Commissioning Incentive program. More specifically, Ameren describes the program as being one that "will seek to identify efficiency opportunities associated with existing mechanical, electrical and thermal systems by providing options for modifying existing controls." These same controls also may be impacting the operation and efficiency of natural gas equipment within the facility. The program description goes on to say that "Equipment that is found to be inefficient and outdated under this program may qualify for incentives under the Custom Incentive Program." Laclede also has a custom incentive program in place for many of the same customers, thereby allowing the customer to realize electric custom incentive opportunities and natural gas incentive opportunities.

## Q. Does the same hold true for the Business New Construction Program?

A. Yes, for many of the same reasons as the Residential Energy Star® New Homes program, Laclede sees the same potential in partnering with Ameren on a Business New Construction program. Like the area home builders, Laclede and Ameren work with the same commercial design and construction organizations and commercial HVAC contractors on providing utility service when both electric and natural gas is available to the site. Under a joint program, a customer would simultaneously have the opportunity to incorporate high efficiency electric and natural gas measures into the design of the new or renovated facility. Leveraging the partnership and incentive opportunities in both

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<sup>&</sup>lt;sup>5</sup> Report, Appendix B, p. 34

- utility programs could help to accelerate building construction activity and do it more
   cost-effectively.
- Q. Why do you so strongly advocate Laclede and Ameren jointly engaging in EEprograms?
- 5 A. Laclede strongly believes that investments by utilities in EE programs are good for 6 Missouri residents and businesses. Laclede also believes that utilities should adequately 7 recover those investments in a timely manner. At the same time Laclede understands that 8 there are a number of choices a customer has when purchasing energy consuming 9 equipment. Unless there are compelling economic or environmental reasons for 10 preferring one fuel source over another, financial incentives offered by the two utilities 11 should be market neutral. Further, they should be cost effective to customers who 12 participate in the EE programs as well as customers not participating. Laclede believes 13 that EE programs best serve customers when they provide incentives to purchase 14 equipment that offers the best chance to improve energy efficiency and save on operating costs. By Laclede and Ameren jointly engaging in these programs, customers are more 15 16 likely to acquire – and acquire more efficiently - the most appropriate energy saving 17 technology for that application.
- Q. Please summarize Laclede's position on the joint delivery of energy efficiency
   programs by Laclede and Ameren.
- A. Laclede supports cooperative efforts between the parties where feasible, as such efforts
  can benefit customers by providing more effective EE programs and reducing the total
  cost of administering those programs. Certain programs appear to be especially suitable

for these purposes, such as the HEP, Multi-Family Income Qualified Programs, and new construction programs for both business and residential customers.

## 3 PROMOTING COST-EFFECTIVE FUEL SOURCES AND AVOIDING FUEL

### 4 SWITCHING TO INEFFICIENT FUEL SOURCES

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#### 6 Q. What is Laclede's concern regarding fuel sources?

- A. Ameren's proposed EE programs are very ambitious, totaling \$145 million in aggregate spending over three years. These programs should be managed in a way that motivates customers to use the fuel source that is the most cost-effective, energy efficient, and environmentally friendly choice for a given application. If not managed appropriately, financial incentives at these levels could inadvertently lead to inappropriate fuel switching choices.
- 13 Q. How could these programs lead to inappropriate choices?
- 14 Because of the energy loss inherent in the full fuel cycle delivery of electricity, there are A. 15 a number of end-use applications where the direct use of natural gas to fuel the on-site 16 application is clearly superior to the use of fossil-fuel produced electricity. This more 17 robust and comprehensive method of evaluating energy efficiency is known as the "full 18 fuel cycle method." In July 2009, the NARUC Board of Directors passed a resolution 19 urging the United States Department of Energy to consider the recommendation of the 20 National Research Council's Committee on Point-of-Use and Full-Fuel Cycle 21Measurement Approaches to Energy Efficiency Standards.
- 22 Q. What significance does this have to the design of energy efficiency programs?
- A. It would be counterproductive to structure an electric rebate program in a manner that results in customers installing an electric appliance, albeit an efficient one, in place of an

existing gas furnace, water heating or other appliance that can be most efficiently fueled by natural gas versus electricity. A rebate that is so robust that it motivates customers to replace a gas furnace or water heater with a similar electric appliance fails in two ways. First, it doesn't reduce the use of electricity, which is the goal of these MEEIA programs; to the contrary it *increases* the use of electricity. <sup>6</sup> Second, since it often takes more source energy to create the electricity necessary to operate the appliance (versus the source energy consumed in operating a natural gas appliance), we are failing as a society to reduce our energy footprint. Conversely, we would want to spur customers to upgrade to more fuel efficient electric appliances for applications where electricity is the fuel of choice, such as lighting or refrigeration. Q. Are there in fact programs that encourage fuel switching from gas to electric? A. No, I am not aware of any such programs anywhere in the country. Are there programs that encourage fuel switching from electric to gas? Q. A. Yes, there are several such programs in states ranging from the Southeast to the Northwest. Under these programs rebates are available to pay for energy efficient gas 16 appliances to replace electric appliances. In such situations, gas usage increases while electric use decreases. The net energy use however is decreased because (i) the new gas 18 appliance is more energy efficient than the old electric appliance, (ii) the total amount of

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energy consumed by the gas appliance is much less than the total energy consumed in

<sup>&</sup>lt;sup>6</sup> It would be difficult for Ameren to justify cost recovery for lost sales in circumstances where it has gained sales by converting a customer to an electric furnace or heat pump system where no electric system previously existed.

1 operating the electric appliance, and (iii) the increased gas use will, in many instances, be 2 further offset by reductions in the amount of gas used for generation or in reductions in 3 environmental emissions that would otherwise result from other fuels being used to 4 generate electricity. In the end, it is a win-win for the consumer and the public. 5 Q. Is Laclede advocating an electric-to-gas fuel switching EE program? 6 A. Laclede has not advocated such a program to date. However, Laclede would refer the 7 Commission to the EE rules of the Oklahoma Corporation Commission ("OCC"). The 8 OCC's rules provide that there shall not be gas-to-electric fuel switching measures, and 9 that there can be electric-to-gas fuel switching measures where such measures are shown 10 to promote the OCC's energy efficiency goals or otherwise be in the public interest. 11 Laclede believes that the OCC has struck an appropriate balance on this issue. 12 Q. Has the OCC approved an electric-to-gas fuel switching program? 13 A. Yes. In Case No. PUD-2010-00143, the OCC approved a stipulation by the parties 14 establishing rebates for fuel switching to gas dryers, water heaters and furnaces. The 15 furnace program supports only electric resistance to natural gas furnace conversions. It 16 does not support heat pump to natural gas furnace conversions. 17 Q. Would an electric-to-gas fuel switching EE program benefit Ameren's goals under 18 the MEEIA? 19 Yes. In the MEEIA case, Ameren has committed to significant reductions in electric A. 20 usage through its proposed EE programs. However, it does not appear that Ameren

1		intends to use fuel-switching from electric to gas as a means of reducing electric use.
2		While effecting a change from an inefficient electric appliance to an efficient electric
3		appliance will result in marginal energy savings, converting that appliance to natural gas
4		would altogether eliminate the electric use of that application.
5	Q.	So is Laclede suggesting that Ameren adopt an electric-to-gas appliance conversion
6		program?
7	A.	Laclede is not suggesting that in this docket. However, should the matter be raised in the
8		future, Laclede would hope that, like the OCC, the Commission would carefully consider
9		all aspects of such a program, and approve it if the Commission found it to be in the
10		public interest. At a minimum, however, the Commission should make sure in this case
11		that energy efficiency incentives are not provided in a way that would migrate customers
12		from natural gas to electric applications.
13	Q.	Would Laclede benefit from an electric-to-gas conversion program?
14	A.	Depending upon the type and location of the customer, Laclede could see a marginal
15		benefit in adding a customer who had previously been "all-electric." However, because
16		Laclede has an essentially decoupled rate design, the Company is more or less indifferent
17		in other instances to adding load. Regardless of the effect on Laclede, the Commission
18		should evaluate EE programs based on whether they are in the public interest.
19	Q.	How does Laclede propose to ensure that Ameren's EE programs avoid fuel

switching that would subsidize inappropriate fuel sources?

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<sup>&</sup>lt;sup>7</sup> Laclede notes that a Vermont analysis displayed in the Report counted electric to gas fuel switching as one of the factors contributing to reduced megawatt hours. (Report, Table 3.8, p. 50)

1 A. Laclede cannot provide detailed suggestions at this point because, as indicated earlier in this 2 testimony, Ameren has not yet provided the proposed details of its programs. However, 3 Laclede does seek to establish principles that will avoid the unintended consequence of 4 inappropriate gas to electric fuel switching. Laclede respectfully suggests that the following 5 principles be incorporated into Ameren's programs: 6 Existing Residential and Commercial Properties 7 A purchaser of a heat pump system or water heater would not be eligible for a rebate 8 where a corresponding gas appliance is present. 9 New Construction 10 Absent Commission approval of a program that prefers one fuel source over another, 11 Ameren and Laclede will structure incentives for new construction that are designed 12 to make the customer or builder fuel neutral for heating appliances. In other words, 13 the incentives should encourage the installation of energy efficient equipment, 14 without favoring a fuel source; rather the market should be allowed to determine the

#### Food Service

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- A purchaser of electric food service equipment would not be eligible for a rebate
   where a natural gas appliance is already in place.
- 19 Q. Does this conclude your testimony?

choice of fuel.

20 A. Yes, it does.

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

In the Matter of Union Electric Company d/b/a Ameren  Missouri's Filing to Implement Regulatory Changes in  Furtherance of Energy Efficiency as allowed by MEEIA  Case No. GR-EO-2012-0142
<u>AFFIDAVIT</u>
STATE OF MISSOURI )
) SS. CITY OF ST. LOUIS )
James Travis, of lawful age, being first duly sworn, deposes and states:
1. My name is James Travis. My business address is 720 Olive Street, St. Louis, Missouri 63101; and I am Project Support Specialist of Laclede Gas Company.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony, on behalf of Laclede Gas Company.
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.
James Travis
Subscribed and sworn to before me this 13 <sup>th</sup> day of April, 2012.

Notary Public

KAREN A. ZURLIENE
Notary Public - Notary Seal
STATE OF MISSOUR!
St. Louis City
My Commission Expires: Feb. 18, 2016
Commission # 12382873