

Exhibit No.:
Issues: Energy Efficiency
Witness: John Buchanan
Sponsoring Party: Missouri Department of Economic
Development - Division of Energy
Type of Exhibit: Direct Testimony
Case No.: GR-2014-0086

MISSOURI PUBLIC SERVICE COMMISSION

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

DIRECT TESTIMONY

OF

JOHN BUCHANAN

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

DIVISION OF ENERGY

Jefferson City, Missouri
May 30, 2014

(Revenue Requirement)

TABLE OF CONTENTS

I.	INTRODUCTION.....	2
II.	PURPOSE AND SUMMARY OF TESTIMONY.....	4
III.	ENERGY EFFICIENCY PROGRAM DEVELOPMENT AND IMPLEMENTATION	5
IV.	NATURAL GAS ENERGY EFFICIENCY INITIATIVES.....	10
V.	LOW INCOME WEATHERIZATION ASSISTANCE	12
VI.	PROGRESS REPORTS	13

1 I. INTRODUCTION

2
3 **Q. Please state your name and business address.**

4 A. John Buchanan, Missouri Department of Economic Development, Division of Energy, 301
5 West High Street, Suite 720, Jefferson City, Missouri.

6 **Q. What is the Division of Energy?**

7 A. The Division of Energy (DE) is a division of the Missouri Department of Economic
8 Development (DED) and is the designated state energy office in Missouri responsible for the
9 administration of several federal programs and grants including the federal State Energy
10 Program (SEP) established by the United States Congress in 1978, which is managed
11 nationally by the United States Department of Energy (USDOE). The SEP consists of several
12 statewide energy efficiency programs administered by the DE and funded by the USDOE.
13 The DE is also responsible for administering the federal Low Income Weatherization
14 Assistance Program (LIWAP). The DE is vested with the powers and duties set forth in
15 Section 640.150, RSMo.

16 **Q. What is your position with the Missouri Division of Energy?**

17 A. I am the Senior Planner in the DE's Energy Policy and Resources Program.

18 **Q. On whose behalf are you testifying?**

19 A. I am testifying on behalf of the DE, an intervenor in these proceedings.

20 **Q. Please describe your educational background and business experience.**

21 A. I joined the Missouri Department of Natural Resources' (DNR) DE in July of 1980 as
22 director of the Missouri Residential Conservation Service Program, a congressionally
23 mandated investor-owned electric and natural gas utility Demand Side Management

1 initiative. In 1986, I was promoted to serve as the Senior Planner within the Director's
2 Office at the DE. In this capacity, I was involved in a variety of programs and projects
3 addressing energy, environmental, and natural resource issues. In October 1995, I was
4 appointed as a Senior Planner within the Policy and Planning Unit at the DE where my
5 responsibilities include preparation of testimony filed in general rate or other cases by the
6 DNR before the Missouri Public Service Commission (Commission), energy efficiency
7 program design and development, energy emergency planning, energy supply and price
8 monitoring and energy-related policy development. Governor Jay Nixon by Executive Order
9 13-03 transferred the DE from the DNR to the DED effective August 28, 2013. Prior to my
10 employment with the DNR, I served as Special Assistant to the Mayor, City of Columbia,
11 Missouri for two years. I have a Bachelor of Arts degree in Political Science from Columbia
12 College. I am a former Fellow of Missouri University, where I received my Master of
13 Science in Public Administration.

14 **Q. Are you currently working with Missouri gas utilities to implement energy efficiency**
15 **initiatives?**

16 A. Yes. Since 1980 I have worked directly with investor-owned regulated gas utilities on
17 several natural gas energy efficiency initiatives including the federal Residential
18 Conservation Service Program established by Congress. This was the first nationwide
19 utility-sponsored non-low income residential energy efficiency program under the guidance
20 of the USDOE. The DE is a charter member of several natural gas energy efficiency
21 collaboratives authorized by the Commission. I serve as the designated DE representative on
22 the following utility efficiency collaboratives:

23 1) Ameren Missouri (natural gas) established by GR-2003-0517;

- 1 2) Atmos Energy Corporation, now Liberty Utilities, established by GR-2006-0387;
- 2 3) The Empire District Gas Company established by ER-2006-0315
- 3 3) Laclede Gas Company established by GR-2007-0208; and,
- 4 4) Missouri Gas Energy established by GR-2006-0422 and GT-2008-0005.

5

6 **II. PURPOSE AND SUMMARY OF TESTIMONY**

7

8 **Q. What is the purpose of your direct testimony in these proceedings?**

9 A. The purpose of my testimony is to address natural gas related energy efficiency issues with
10 respect to Summit Natural Gas Company of Missouri, Inc. (SNG). I will specifically offer
11 testimony regarding:

- 12 (1) The adoption of natural gas energy efficiency initiatives by SNG consistent with those
13 authorized by the Commission for other Missouri investor-owned natural gas companies.
 - 14 (2) The establishment of a formal energy efficiency advisory group to implement cost-
15 effective energy efficiency initiatives by SNG;
 - 16 (3) Target funding level for SNG to design, implement and evaluate successful energy
17 efficiency programs for residential and commercial (small and large general service)
18 customers; and,
 - 19 (4) Low-Income Weatherization Assistance.
- 20

1 **III. ENERGY EFFICIENCY PROGRAM DEVELOPMENT AND IMPLEMENTATION**

2
3 **Q. What recommendations do you have regarding energy efficiency programs for SNG?**

4 A. To assist SNG in its efforts to fully identify, develop and implement appropriate energy
5 efficiency programs designed to reduce natural gas consumption by its customers that may
6 lead to lower utility bills, the DE recommends that the Commission:

- 7 (1) Establish an Energy Efficiency Advisory Collaborative (EEAC) consisting of
8 representatives from SNG, Staff, the Office of Public Counsel, the DE, and other
9 interested parties that have intervened in this rate case to facilitate energy-efficiency
10 activities undertaken by SNG. The collaborative would serve in an advisory capacity to
11 help guide SNG's energy efficiency planning and implementation process. SNG should
12 implement the most appropriate and cost-effective slate of energy efficiency programs to
13 meet the needs of its customers and share-holders;
- 14 (2) Require SNG to commit to adequately fund the energy efficiency programs identified by
15 the collaborative that are determined to be cost effective. Annual funding levels should
16 be at a targeted level of no less than 0.5 percent of SNG's gross annual operating
17 revenues, including commodity expense (cost of natural gas) beginning in calendar year
18 2015 following authorization by the Commission in this rate case.
- 19 (3) Require SNG to report, at least annually, progress on energy efficiency activities to the
20 Commission and the EEAC.

21 **Q. What level of energy efficiency funding should the Commission authorize for SNG?**

22 A. The DE recommends an annual target funding level of 0.5 percent of SNG's gross operating
23 revenue including commodity/cost of gas to implement cost-effective energy efficiency

1 programs. This recommended funding level is a minimum level of investment to support
2 successful energy efficiency initiatives.

3 **Q. What is the basis of the 0.5 percent level of energy efficiency investment you
4 recommend?**

5 A. The National Action Plan for Energy Efficiency sponsored by the USDOE and the United
6 States Environmental Protection Agency and prepared by 50 leading organizations, including
7 a variety of natural gas companies, noted the most effective energy efficiency projects were
8 funded at a level equal to a minimum range of 0.5 to 1.5 percent of a natural gas utility's
9 annual operating revenue.¹

10 **Q. Were recommendations presented by the National Action Plan for Energy Efficiency
11 used by Missouri investor-owned natural gas companies in designing and implementing
12 the current energy efficiency initiatives?**

13 A. Yes. Missouri Gas Energy's (MGE) current energy efficiency initiatives were initiated
14 through the consensus process by MGE's Energy Efficiency Collaborative (EEC). Further,
15 MGE, with assistance from the EEC, has adopted cost effective energy efficiency program
16 measures. Similarly, Laclede Gas Company and Ameren Missouri have adopted cost-
17 effective natural gas energy efficiency initiatives through their respective stakeholder
18 collaboratives.

19 **Q. Has the Commission authorized energy efficiency program funding based on utility
20 operating revenue?**

¹ National Action Plan for Energy Efficiency, July 2006

1 A. Yes. The Commission used gross annual utility operating revenue as a basis to fund energy
2 efficiency initiatives in MGE's rate case, GR-2009-0355. Specifically, the Commission, in
3 its Report and Order stated,

4 The Commission finds that DNR's position is persuasive in that energy efficiency
5 funding should be tied to MGE's annual gross operating revenues. The
6 Commission further finds that DNR's request that .5% of MGE's annual gross
7 operating revenues should be allocated for energy efficiency funding and that it is
8 an appropriate goal or benchmark in expenditures for natural gas utilities. The
9 Commission finds that the EEC should take all steps necessary to work toward
10 implementation of cost-effective energy efficiency programs to reach this goal to
11 maximize benefits.²

12
13 The Commission authorized continuation of this funding target in MGE's last rate case, GR-
14 2014-0007:

15 MGE will continue to work with its Energy Efficiency Collaborative ("EEC") to develop
16 cost-effective conservation and energy efficiency programs under the same terms and
17 conditions as exist today, except that, for the 12 month period beginning October 1, 2014,
18 the funding level goals as referenced herein shall be updated to Two Million Six Hundred
19 Fifty Thousand Dollars (\$2,650,000), which is .5% of the annual average of the
20 Company's Missouri jurisdictional gas distribution operating revenues for the MGE
21 service territory, including cost of gas for the fiscal years ending 2011, 2012 and 2013.
22 For the 12 month period beginning each January 1st thereafter, such target levels shall be
23 updated to .5% of the moving average of these revenues over the three previous years.
24 This updating method shall remain in effect until the effective date of a Commission
25 order mandating otherwise in a subsequent rate case or until the parties unanimously
26 agree to request and the Commission approves a different method or target level amount.³

27
28 **Q. Has the Commission supported energy efficiency program funding based on utility operating**
29 **revenue for other natural gas utilities?**

30 A. Yes. In GR-2010-0171, the Commission originally authorized the 0.5 percent target level of
31 funding for Laclede:

² Missouri Public Service Commission Case No. GR-2009-0355, *In the Matter of Missouri Gas Energy and Its Tariff Filing to Implement a General Rate Increase for Natural Gas Service*; Report and Order, February 10, 2010, page 63.

³ Missouri Public Service Commission Case No. GR-2014-0007, *In the Matter of Missouri Gas Energy's Filing of Revised Tariffs to Increase its Annual Revenues for Natural Gas Service*; Stipulation and Agreement, April 11, 2014, page 19-20.

1 Laclede further agrees to fund up to a target level of One Million, Seven Hundred
2 Thousand Dollars (\$1,700,000) annually for the first year after the rates in this
3 case become effective to fund cost-effective conservation and energy efficiency
4 programs that have been developed or are developed as a result of the Energy
5 Efficiency Collaborative (“EEC”) process. For subsequent plan years, Laclede
6 will work with the EEC to take reasonable actions toward a goal of increasing the
7 funding level for cost-effective conservation and energy efficiency programs for
8 the plan year ending in 2013 to 0.5% of the annual average of the Company’s
9 Missouri jurisdictional gas distribution operating revenues including cost of gas
10 for Residential, Commercial and Industrial, and Interruptible Customers for the
11 fiscal years ending 2008, 2009 and 2010, as such revenues are set forth in the
12 Company’s 10-K filings with the Securities and Exchange Commission. Such
13 target levels shall remain in effect until the effective date of a commission order
14 mandating otherwise in a subsequent rate case or until the parties unanimously
15 agree to request and the Commission approves a different target level amount.
16 Any portion of the \$150,000 annual funding amount included in rates that is not
17 expended in a given year shall be transferred as a credit to the regulatory asset
18 account for energy efficiency costs.⁴
19

20 Likewise, in GR-2009-0434, Empire District Gas Company’s last rate case, the Commission
21 ordered the following:

22 The Empire District Gas Company is directed to budget for energy efficiency
23 programs previously approved in the *Partial Stipulation and Agreement* at levels
24 that will begin at \$231,200 in 2010; and to take all reasonable actions toward the
25 goal of increasing expenditures for those programs to .5 percent of annual
26 operating revenues, including gas costs, for 2011 and 2012.⁵
27

28 **Q. Did the Commission address energy efficiency target funding level in Laclede Gas**
29 **Company’s last rate case?**

30 A. Yes. The Stipulation and Agreement in Laclede’s last rate case, GR-2013-0171, noted:

31
32 Laclede will continue to work with its Energy Efficiency Collaborative (“EEC”)
33 to develop cost-effective conservation and energy efficiency programs under the
34 same terms and conditions as exist today, except that, for the 12 month period
35 beginning October 1, 2013, the funding level goals as referenced in the Second

⁴ Missouri Public Service Commission Case No. GR-2010-0171, *In the Matter of Laclede Gas Company’s Tariff to Revise Natural Gas Rate Schedules*; Second Stipulation and Agreement, August 3, 2010, page 6-7.

⁵ Missouri Public Service Commission Case No. GR-2009-0434, *In the Matter of The Empire District Gas Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Gas Service Provided to Customers in the Missouri Service Area of the Company*, Report and Order on DSM Funding, February 24, 2010, pages 15-16.

1 Stipulation and Agreement in Case No. GR-2010-0171 shall be updated to
2 \$4,235,000, which is .5% of the annual average of the Company's Missouri
3 jurisdictional gas distribution operating revenues for the Laclede Gas division
4 service territory, including cost of gas for Residential, Commercial and Industrial,
5 and Interruptible Customers for the fiscal years ending 2010, 2011 and 2012, as
6 such revenues are set forth in the Company's 10-K filings with the Securities and
7 Exchange Commission, or if not set forth in those filings, then through another
8 credible source.⁶
9

10 **Q. Did the Commission authorize future energy efficiency target funding levels for**
11 **Laclede?**

12 A. Yes. The Commission authorized a target level of funding formula for future years beyond
13 October 1, 2013:

14 For the 12 month period beginning each October 1 thereafter, such target levels
15 shall be updated to .5% of the moving average of these revenues over the three
16 previous years. This updating method shall remain in effect until the effective
17 date of a Commission order mandating otherwise in a subsequent rate case or
18 until the parties unanimously agree to request and the Commission approves a
19 different method or target level amount.⁷
20

21 **Q. Please identify other investor-owned natural gas utilities for which the**
22 **Commission has authorized target funding levels for energy efficiency.**

23 A. In addition to Empire District Gas, Laclede and MGE, as discussed above, the
24 Commission has authorized target funding levels for Ameren Missouri⁸ and Liberty
25 Utilities⁹.

⁶ Missouri Public Service Commission Case No. GR-2013-0171, *In the Matter of Laclede Gas Company's Filing of Revised Tariffs to Increase its Annual Revenues for Natural Gas*, Stipulation and Agreement, May 31, 2013, page 13.

⁷ *Ibid.* (page 13).

⁸ Missouri Public Service Commission Case No. GR-2010-0363, *In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Natural Gas Service Provided to Customers in the Company's Missouri Service Area*, Unanimous Stipulation and Agreement, January 4, 2011, page 3.

⁹ Missouri Public Service Commission Case No. GR-2010-0192, *In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company*, Unanimous Stipulation and Agreement, August 11, 2010, page 5.

1 **Q. Should the Commission consider a similar energy efficiency target funding level approach for**
2 **SNG and if so, why?**

3 A. Yes. Without exception, the Commission has adopted a target funding level approach to
4 support successful, cost-effective energy efficiency initiatives designed and implemented by
5 Missouri's regulated investor-owned natural gas utilities. To maintain consistency in target
6 funding levels among Missouri gas companies and to provide customers with cost-effective
7 opportunities for energy savings, the Commission should authorize the same funding
8 approach here as it authorized for Ameren Missouri, Atmos (now Liberty Utilities), Empire
9 District Gas Company, MGE and Laclede Gas Company.

10
11 **IV. NATURAL GAS ENERGY EFFICIENCY INITIATIVES**

12
13 **Q. What Missouri regulated natural gas utilities have energy efficiency programs authorized by**
14 **the Commission?**

15 A. The following investor-owned natural gas utilities regulated by the Commission have
16 portfolios promoting a variety of cost-effective energy efficiency programs and initiatives for
17 Missouri Residential, Commercial, Small General Service and Industrial natural gas
18 customers:

19 Ameren Missouri (natural gas)
20 The Empire District Gas Company
21 Laclede Gas Company
22 Liberty Utilities (formerly Atmos Energy Corporation)
23 Missouri Gas Energy
24

25 **Q. Please briefly describe cost-effective natural gas energy efficiency initiatives.**

1 A. MGE has instituted a portfolio of energy efficiency initiatives for their residential customers.
2 The EEC determined through a series of energy efficiency collaborative meetings to offer
3 rebates for residential customers to encourage the purchase and installation of ENERGY
4 STAR® qualified natural gas utilization equipment including furnaces, water heaters and
5 boilers. Rebates for programmable thermostats were also made available.¹⁰

6 **Q. Please continue.**

7 A. In addition, the Commission authorized energy efficiency incentives for the Small General
8 Services (SGS) classification:

9 The SGS Energy Efficient Natural Gas Equipment Incentive Program shall be
10 designed to encourage more effective utilization of natural gas by encouraging
11 energy efficiency improvements through the replacement of less efficient natural
12 gas equipment with high efficiency Energy Star qualified natural gas equipment
13 and other high efficiency equipment and measures. MGE shall solicit input from
14 the EEC on specific programs and incentive levels. Depending on the results of
15 the programs MGE may in the future request permission from the Commission to
16 expand the program to include other program options after dialogue with the
17 EEC. The incentive could include but would not be limited to the following

- 18 Energy Star qualified appliances:
- 19 Natural gas forced air furnaces
 - 20 Natural gas water heater
 - 21 Natural gas boiler systems
 - 22 Natural gas combination systems
 - 23 Commercial natural gas utilization equipment, such as
 - 24 Modulating burners
 - 25 Venturi steam traps
 - 26 Kitchen exhaust hoods
 - 27 Waste heat recovery
 - 28 Heat exchangers¹¹

29

¹⁰ Case No. GR-2009-0355, Report and Order, *op. cit.*, pages 62-63.

¹¹ *Ibid.* (pages 64-65).

1 V. LOW INCOME WEATHERIZATION ASSISTANCE

2

3 **Q. What are some of the general benefits of low-income residential weatherization?**

4 A. Overall, low-income households that qualify for weatherization spend a proportionally higher
5 amount of their income on energy needs compared to non-low-income households. The
6 decision and ability to pay one's utility bill often compete with other necessities. Many low-
7 income individuals live in older homes equipped with older, less-efficient heating systems
8 and generally lack energy-efficiency measures such as insulation. Weatherization is a cost-
9 effective means to help low-income individuals or families pay their energy bills year after
10 year for the life of the energy-efficiency product. Weatherization reduces the amount of state
11 and federal assistance needed to pay higher utility bills, keeps money in the local economy,
12 results in a positive impact on the household's promptness in paying utility bills, reduces
13 arrearages and helps to reduce environmental pollution through energy efficiency.

14 **Q. Has the Commission approved natural gas utility-based Low-Income Weatherization**
15 **Assistance funding?**

16 A. The following natural gas utilities have Commission authorization to fund Low-Income
17 Weatherization Assistance:

18 Ameren Missouri¹² - \$263,000/annual

19 Atmos (Now Liberty Utilities)¹³ - \$105,000/annual

20 Empire District Gas Company¹⁴ - \$72,667/annual

21 MGE¹⁵ - \$750,000/annual

¹² Case No. GR-2010-0363, Unanimous Stipulation and Agreement, *op. cit.*, page 3.

¹³ Case No. GR-2010-0192, Unanimous Stipulation and Agreement, *op. cit.*, pages 5-6.

¹⁴ Case No. GR-2009-0434, Report and Order, *op. cit.*, pages 15-16.

1 Laclede Gas Company¹⁶ - \$600,000/annual

2 **Q. Should the Commission approve funding for a SNG Low Income Weatherization**
3 **Assistance Program?**

4 A. Yes. According to the most recent U.S. Census data, there are approximately 53,927 low-
5 income eligible households in the counties in which SNG provides natural gas service that
6 may qualify for Low Income Weatherization Assistance.

7 **Q. Do you recommend a level of funding by SNG to support Low Income Weatherization**
8 **Assistance?**

9 A. We do not recommend a specific level of funding, or a specific calculation method, but Low
10 Income Weatherization Assistance funding should be in addition to the 0.5 percent target
11 funding level for energy efficiency. DE proposes that weatherization assistance funding be a
12 subject for discussion among the parties.

13
14 **VI. PROGRESS REPORTS**

15
16 **Q. Should SNG provide regularly scheduled reports to the Commission and the EEAC?**

17 A. Yes. In an advisory capacity, the EEAC will meet regularly to discuss energy efficiency
18 program design and implementation. SNG will be responsible for the day-to-day
19 management of the energy efficiency measures adopted/implemented and should provide, at
20 least annually, progress reports on its activities to the Commission and to the EEAC.

¹⁵ Case No. GR-2014-0007, Stipulation and Agreement, *op. cit.*, page 19.

¹⁶ Case No. GR-2013-0171, Stipulation and Agreement, *op. cit.*, page 11.

1 The Commission has established reporting requirements for other Missouri natural gas
2 companies including MGE¹⁷ and Liberty Utilities.¹⁸

3 **Q. Please summarize your testimony.**

4 A. Significant strides have been made by investor-owned natural gas utilities to successfully
5 implement cost-effective energy efficiency programs in Missouri. These investments should
6 continue to be strongly supported through new and continued funding to ensure their on-
7 going success. The DE respectfully recommends, therefore, that the Commission address and
8 authorize the following:

- 9 • Approve the creation of the Energy Efficiency Advisory Collaborative (EEAC) in an
10 advisory capacity to help guide SNG's energy efficiency planning and
11 implementation process;
- 12 • Require SNG to commit to adequately fund the energy efficiency programs identified
13 by the collaborative that are determined to be cost effective;
- 14 • Require SNG to report, at least annually, progress on energy efficiency activities to
15 the Commission and the EEAC; and,
- 16 • Authorize funding by SNG to support Low-Income Weatherization Assistance.

17 **Q. Does this conclude your testimony?**

18 A. Yes. Thank you.

¹⁷ Case No. GR-2014-0007, Stipulation and Agreement, *op. cit.*, page 21.

¹⁸ Case No. GR-2010-0192, Unanimous Stipulation and Agreement, *op. cit.*, page 5.

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

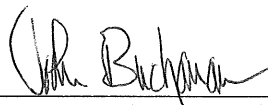
In the Matter of Summit Natural Gas of Missouri's)
Filing of Revised Tariffs to Increase its Annual) **Case No. GR-2014-0086**
Revenues for Natural Gas Service.)

AFFIDAVIT OF JOHN A. BUCHANAN

STATE OF MISSOURI)
) **ss**
CITY OF JEFFERSON)

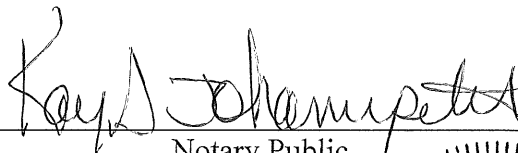
John A. Buchanan, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is John A. Buchanan. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development as Senior Planner, Division of Energy.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of the Missouri Department of Economic Development – Division of Energy.
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.



John A. Buchanan

Subscribed and sworn to before me this 30th day of May, 2014



Notary Public

My commission expires:

