

Exhibit No.: _____

Issue: Tariff Changes; Energy Efficiency Program

Witness: Martha R. Wankum

Exhibit Type: Direct

Sponsoring Party: Summit Natural Gas of Missouri, Inc.

Case No.: GR-2014-0086

Date: January 2, 2014

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-2014-0086

DIRECT TESTIMONY

OF

MARTHA R. WANKUM

ON BEHALF OF

SUMMIT NATURAL GAS OF MISSOURI, INC.

Jefferson City, Missouri

January 2, 2014

Summit Exhibit No. 18
Date 8-19-14 Reporter XF
File No. GR-2014-0086

TABLE OF CONTENTS

**DIRECT TESTIMONY
OF
MARTHA R. WANKUM**

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

<u>I. EDUCATIONAL BACKGROUND & PROFESSIONAL QUALIFICATIONS</u>	<u>4</u>
<u>II. TESTIMONY OVERVIEW</u>	<u>5</u>
<u>III. TARIFF CHANGES</u>	<u>5</u>
<u>1. Consolidation of Current Tariff Books</u>	<u>6</u>
<u>2. Rate Changes</u>	<u>8</u>
<u>3. Optional General Service Rate Schedule</u>	<u>8</u>
<u>4. Elimination of the Interruptible Sales Service Rate Schedule</u>	<u>9</u>
<u>5. Transportation Service Rate Schedule for the Lake of the Ozarks Division</u>	<u>10</u>
<u>6. Renaming of Divisions</u>	<u>11</u>
<u>7. Miscellaneous Charges</u>	<u>12</u>
<u>8. Rules and Regulations</u>	<u>13</u>
<u>9. Free Conversion Rules and Regulations</u>	<u>13</u>
<u>10. Transportation Service Tariffs and Missouri School Aggregation Program</u>	<u>14</u>
<u>11. Revisions to the Purchased Gas Adjustment Clause</u>	<u>14</u>
<u>IV. RESIDENTIAL NATURAL GAS ENERGY EFFICIENCY INCENTIVE PROGRAM</u>	<u>15</u>

V. SUMMARY AND RECOMMENDATIONS18

DIRECT TESTIMONY

MARTHA R. WANKUM

SUMMIT NATURAL GAS OF MISSOURI, INC.

I. EDUCATIONAL BACKGROUND & PROFESSIONAL QUALIFICATIONS

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

2 A. Martha R. Wankum, 312 East Capitol Avenue, Jefferson City, MO 65101.

3 **Q. ON WHOSE BEHALF IS YOUR TESTIMONY PRESENTED?**

4 A. I am testifying on behalf of Summit Natural Gas of Missouri, Inc. ("SNG" or the
5 "Company").

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

7 A. I am the Missouri Regulatory Affairs Manager for Summit Utilities, Inc., the parent
8 company of SNG.

9 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND RELEVANT**
10 **BUSINESS EXPERIENCE.**

11 A. Information responsive to this question is shown in the attached **Schedule MRW-**
12 **1.**

13 **Q. ARE YOU SPONSORING ANY SCHEDULES IN THIS PROCEEDING?**

14 A. Yes, a list of schedules is shown below:

- 15 • **Schedule MRW-1: Statement of Qualifications**
16 • **Schedule MRW-2: Summary of Tariff Revisions**

- 1 • **Schedule MRW-3:** Comparison of Miscellaneous Tariff Charges
- 2 • **Schedule MRW-4:** Residential Natural Gas Energy Efficiency Incentive
- 3 Program Marketing Plan
- 4 • **Schedule MRW-5:** Residential Natural Gas Energy Efficiency Incentive
- 5 Program EM&V Plan
- 6 • **Schedule MRW-6:** Residential Natural Gas Energy Efficiency Incentive
- 7 Program Avoided Costs and Benefit Cost Ratios
- 8 • **Schedule MRW-7:** Residential Natural Gas Energy Efficiency Incentive
- 9 Program Savings Calculation

10 **Q. WERE YOUR SCHEDULES PREPARED BY YOU OR UNDER YOUR**
11 **DIRECTION?**

12 **A. Yes.**

13

14 **II. TESTIMONY OVERVIEW**

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

16 **A. In my testimony, I will describe the various tariff revisions requested by SNG,**
17 **including a request for approval of a new residential natural gas energy efficiency**
18 **incentive program.**

19

20 **III. TARIFF CHANGES**

21 **Q. WOULD YOU PLEASE SUMMARIZE THE TARIFF CHANGES BEING**

1 **REQUESTED BY SNG?**

2 A. SNG is filing 116 proposed tariff sheets containing either a language or rate
3 change. The proposed tariff sheets include the following key changes:

- 4 1. Consolidation of Current Tariff Books
- 5 2. Rate Changes
- 6 3. Optional General Service Rate Schedule
- 7 4. Elimination of the Interruptible Sales Service Rate Schedule
- 8 5. Creation of a Transportation Service Rate Schedule for the Lake of the Ozarks
9 Division
- 10 6. Renaming of Divisions
- 11 7. Miscellaneous Charges
- 12 8. Rules and Regulations
- 13 9. Free Conversion Rules and Regulations
- 14 10. Transportation Service Tariffs and Missouri School Aggregation Program
- 15 11. Revisions to the Purchased Gas Adjustments Clause
- 16 12. Residential Natural Gas Energy Efficiency Incentive Program

17
18 1. Consolidation of Current Tariff Books

19 **Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE CURRENT SNG TARIFF**
20 **BOOKS.**

21 A. SNG currently has two tariff books. One applies to the territory formerly served

1 under the Missouri Gas Utility, Inc. name (P.S.C. MO No. 1). The second applies
2 to the territory formerly served by Southern Missouri Natural Gas Company, L.P.
3 (P.S.C. MO No. 2).

4 **Q. DO THE TARIFF SHEETS FILED BY SNG IN THIS CASE REFLECT THE**
5 **CONTINUATION OF THESE TWO TARIFF BOOKS?**

6 A. No. SNG has filed a new consolidated tariff book (P.S.C. MO No. 3) which will
7 replace the two existing tariff books (P.S.C. MO No. 1 and P.S.C. MO No. 2) in
8 their entirety. Please see Schedule MRW-2 for a summary of the filed tariff
9 revisions. Overall, each rate area ("division") currently in effect will remain
10 unchanged. In addition, each division's respective customer classes; associated
11 throughputs; and, Purchased Gas Adjustment ("PGA") rate schedules contained in
12 the current tariff books remain mostly unchanged. A few exceptions include
13 changes to some of the existing customer classes, which are discussed in
14 additional detail below.

15 **Q. WHY IS SNG PROPOSING TO CONSOLIDATE ITS CURRENT TARIFF**
16 **BOOKS?**

17 A. The two existing tariff books (P.S.C. MO No. 1 and P.S.C. MO No. 2) have been
18 adopted by SNG and represent the terms and conditions of the service previously
19 provided under the former Missouri Gas Utility, Inc. ("MGU") name and by
20 Southern Missouri Natural Gas Company, L.P ("SMNG"), respectively. In many
21 cases, provisions within the two existing tariff books are either duplicative and/or
22 conflicting. In short, the terms and conditions of the service provided by SNG

1 currently vary between the different SNG divisions due to having two different tariff
2 books. Consolidation of these two existing tariff books will create uniformity and
3 operating efficiency across all SNG divisions and overall, will be easier for both
4 SNG employees and customers to understand.

5

6 2. Rate Changes

7 **Q. PLEASE DESCRIBE THE RATE CHANGES BEING REQUESTED BY SNG.**

8 A. Sheet Nos.8-29, P.S.C. MO No. 3 reflect the new rates being proposed for each of
9 the divisions and rate classes. The proposed rate changes are described in
10 greater detail in the direct testimony of Company witness Mr. Kent D. Taylor.

11

12 3. Optional General Service Rate Schedule

13 **Q. PLEASE DESCRIBE THE OPTIONAL GENERAL SERVICE RATE**
14 **SCHEDULE.**

15 A. Only one of the two existing SNG tariff books (Sheet No. 1.1, P.S.C. MO No. 2)
16 includes the availability of an Optional General Service ("OGS") rate schedule.
17 This rate schedule is currently offered only in the former SMNG service territory
18 and is currently available to all General Service customers who take natural gas
19 as their sole source of heat. The OGS rate is offered in lieu of the General
20 Service Rate. It is designed for those General Service customers who do not
21 desire to pay a monthly customer charge.

1 **Q. PLEASE DESCRIBE THE CHANGES TO THE OPTIONAL GENERAL SERVICE**
2 **RATE SCHEDULE REQUESTED BY SNG.**

3 A. The consolidated tariff book (P.S.C. MO No. 3) filed by SNG closes the availability
4 of the OGS rate schedule to new customers. This requested change is discussed
5 in greater detail in the direct testimony of Company witness Ms. Michelle A.
6 Moorman.

7
8 4. Elimination of the Interruptible Sales Service Rate Schedule

9 **Q. PLEASE DESCRIBE THE INTERRUPTIBLE SALES SERVICE RATE**
10 **SCHEDULE.**

11 A. Only one of the two existing tariff books (Sheet No. 21, P.S.C. MO No. 1) includes
12 the availability of an Interruptible Sales Service ("ISS") rate schedule. This rate
13 schedule is currently only available in the Northern Service Area of the service
14 territory formerly under the MGU name, which includes the incorporated
15 municipalities of Gallatin and Hamilton. This rate schedule is available to
16 customers when the Company has excess gas for resale. When the Company
17 has such gas available for resale, it can make short-term arrangements for the
18 sale.

19 **Q. PLEASE DESCRIBE THE CHANGES TO THE INTERRUPTIBLE SALES**
20 **SERVICE RATE SCHEDULE REQUESTED BY SNG.**

1 A. The consolidated tariff book (P.S.C. MO No. 3) filed by SNG eliminates the ISS
2 rate schedule. SNG has requested this change because this rate class is only
3 available in one of the SNG divisions and no customers are currently receiving
4 service under this rate schedule.

5

6 5. Creation of a Transportation Service Rate Schedule for the Lake of the Ozarks
7 Division

8 **Q. DOES THE CURRENT TARIFF INCLUDE A TRANSPORTATION RATE FOR**
9 **THE LAKE OF THE OZARKS DIVISION?**

10 A. No. A transportation service rate was not established for the Lake of the Ozarks
11 Division following the approval of the Certificate of Convenience and Necessity
12 authorizing service in that area (Case No. GA-2012-0285).

13 **Q. IS THERE A NEED TO ESTABLISH A TRANSPORTATION SERVICE RATE**
14 **SCHEDULE IN THE LAKE OF THE OZARKS DIVISION?**

15 A. Yes. Several businesses within the Lake of the Ozarks Division have recently
16 expressed interest to SNG regarding transportation service.

17 **Q. PLEASE DESCRIBE THE NEW TRANSPORTATION SERVICE RATE**
18 **SCHEDULE FOR THE LAKE OF THE OZARKS DIVISION REQUESTED BY**
19 **SNG.**

20 A. Sheet No. 27, P.S.C. MO No. 3 establishes a Transportation Service ("TS") rate
21 schedule for the Lake of the Ozarks Division. The proposed Lake of the Ozarks

1 Division TS rate schedule includes the same throughput requirements as other
 2 transportation service rate schedules in the current P.S.C. MO No. 1 tariff book.
 3 The proposed Lake of the Ozarks Division TS customer charge and commodity
 4 charges are proposed to be equal to the current Lake of the Ozarks Division Large
 5 Volume Service (“LVS”) rates.

6

7 6. Renaming of Divisions

8 **Q. DOES SNG INTEND TO MAINTAIN THE EXISTING RATE AREAS IN ITS**
 9 **TARIFFS?**

10 A. Yes. The existing five divisions in the P.S.C. MO No. 1 and P.S.C. MO No. 2 tariff
 11 books remain unchanged; however, the names of the divisions themselves have
 12 been updated in the proposed consolidated P.S.C. MO No. 3 tariff book to reflect
 13 the actual geographical location of the service area. The proposed name changes
 14 to the existing five divisions are summarized below:

15

16 Table 1: SNG Division Name Changes

17	P.S.C. MO No. 1 (formerly MGU)		P.S.C. MO No. 3 (SNG)	
18	Northern Service Area	→	Gallatin Division	
19	Southern Service Area	→	Warsaw Division	
20	Lake of the Ozarks Service Area	→	Lake of the Ozarks Division	
21				
22	P.S.C. MO No. 2 (formerly SMNG)		P.S.C. MO No. 3 (SNG)	
23	SMNG Legacy System	→	Rogersville Division	
24	Branson Service Area	→	Branson Division	
25				

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

7. Miscellaneous Charges

Q. PLEASE PROVIDE AN OVERVIEW OF THE MISCELLANEOUS TARIFF CHARGES IN THE EXISTING SNG TARIFF BOOK.

A. Please see Schedule MRW-3 for a comparison of the miscellaneous tariff charges in the two current SNG tariff books (P.S.C. MO No. 1 and P.S.C. MO No. 2).

Q. DESCRIBE THE CHANGES TO ANY MISCELLANEOUS TARIFF CHARGES REQUESTED BY SNG.

A. The miscellaneous charges in the proposed consolidated tariff book (P.S.C. MO No. 3) reflect the miscellaneous charges currently authorized in the P.S.C. MO No. 1 tariff book. These charges were previously approved by this Commission and this change would create uniformity between the fees charged across the entire SNG service territory. The consolidation of miscellaneous charges would create uniformity and increase operating efficiency across all SNG divisions and overall, be easier for both SNG employees and customers to understand.

Q. HOW DO THE PROPOSED MISCELLANEOUS CHARGES DIFFER FROM THOSE INCLUDED IN THE TARIFF BOOK FOR THE FORMER SMNG SERVICE TERRITORY?

A. Many of the miscellaneous charges in the P.S.C. MO No. 2 tariff book have separate charges for services performed during and after normal business hours. In contrast, many of the miscellaneous charges in the P.S.C. MO No. 1 tariff book

1 simply include a fixed dollar amount and do not vary based on business hours. In
2 general, the fixed dollar amounts for miscellaneous charges authorized in the
3 P.S.C. MO No. 1 tariff book tend to fall between the dollar amounts authorized for
4 services performed during and after normal business hours in the P.S.C. MO No.
5 2 tariff book. For many of the other miscellaneous charges in the P.S.C. MO No.
6 2 tariff book that do not specify the business hours, the costs are relatively similar
7 to those authorized in the P.S.C. MO No. 1 tariff book. Therefore, SNG requests
8 that the proposed consolidated tariff book (P.S.C. MO No. 3) reflect the
9 miscellaneous charges currently included in the P.S.C. MO No. 1 book.

10

11 8. Rules and Regulations

12 **Q. DESCRIBE THE CHANGES TO THE RULES AND REGULATIONS SECTION**
13 **OF THE TARIFF REQUESTED BY SNG.**

14 A. Sheet Nos. 61-89 of the proposed consolidated tariff book (P.S.C. MO No. 3)
15 consist of a "Rules and Regulations" section. Both of the current tariff books
16 (P.S.C. MO No. 1 and P.S.C. MO No. 2) also include Rules and Regulations
17 sections. Because both current tariff books have a Rules and Regulations
18 section, the proposed consolidated tariff book has been drafted to more closely
19 resemble the P.S.C. MO No. 1 tariff book, so as to avoid duplication.

20

21 9. Free Conversion Rules and Regulations

1 **Q. IS SNG PROPOSING ANY CHANGES TO ITS FREE CONVERSION**
2 **PROGRAM?**

3 A. Yes. SNG also filed revisions (Sheet Nos. 82-85, P.S.C. MO No. 3) to the tariff
4 sheets that provide for a free conversion program (Sheet Nos. 78-83, P.S.C. MO
5 No. 1). SNG would like to offer this service to new customers, but for a charge.
6 SNG proposes to include the same labor charges as are currently contained in the
7 conversion program tariff (Sheet No. 82, P.S.C. MO No. 1) in the proposed
8 consolidated tariff book (Sheet No. 84, P.S.C. MO No. 3) and bill the actual cost of
9 pipe and fittings to customers. The labor charges currently included in the free
10 conversion program tariff are a technician-only hourly labor charge of \$30 and a
11 technician and truck hourly labor charge of \$40 (Sheet No. 82, P.S.C. MO No. 1).

12

13 10. Transportation Service Tariffs and Missouri School Aggregation Program

14 **Q. PLEASE DESCRIBE ANY TARIFF CHANGES TO THE RULES AND**
15 **REGULATIONS THAT GOVERN THE SNG TRANSPORTATION SERVICE**
16 **TARIFFS OR THE MISSOURI SCHOOL AGGREGATION PROGRAM.**

17 A. The tariff revisions related to these programs are contained in Sheets Nos. 30-
18 43C and 45-49, P.S.C. MO No. 3. The proposed changes are addressed in the
19 direct testimony of Company witness Ms. Michelle A. Moorman.

20

21 11. Revisions to the Purchased Gas Adjustment Clause

1 Q. PLEASE DESCRIBE ANY TARIFF CHANGES TO THE PURCHASED GAS
2 ADJUSTMENT CLAUSE.

3 A. The tariff revisions related to the Purchased Gas Adjustment clause are contained
4 in Sheets Nos. 50-55, P.S.C. MO No. 3. With these revisions, SNG proposes to
5 remove text which is no longer relevant.

6

7 IV. RESIDENTIAL NATURAL GAS ENERGY EFFICIENCY INCENTIVE PROGRAM

8 Q. DOES SNG CURRENTLY OFFER AN ENERGY EFFICIENCY PROGRAM?

9 A. No.

10 Q. DO THE COMMISSION'S PROMOTIONAL PRACTICES RULES ALLOW
11 NATURAL GAS UTILITIES TO OFFER COST-EFFECTIVE ENERGY
12 EFFICIENCY PROGRAMS?

13 A. Yes. The Commission's Promotional Practices Rules state the following:

14 (5) Nothing contained in this chapter shall be construed to
15 prohibit the provision of consideration that may be necessary
16 to acquire cost-effective demand-side resources.

17 (Rule 4 CSR 240-14.010(5), General Provisions)

18

19 Q. IS SNG REQUESTING APPROVAL OF AN ENERGY EFFICIENCY PROGRAM
20 IN THIS CASE?

21 A. Yes. SNG would like to offer its residential customers a cost-effective natural gas
22 energy efficiency incentive program as permitted by the Commission's
23 Promotional Practices Rules (4 CSR 240-14).

1 Q. PLEASE DESCRIBE THE PROPOSED RESIDENTIAL NATURAL GAS ENERGY
2 EFFICIENCY INCENTIVE PROGRAM.

3 A. SNG requests approval to offer cost-effective energy efficiency rebates to new
4 and current residential customers who purchase high efficiency furnaces and/or
5 programmable thermostats. The associated tariff sheet filed by SNG is Sheet No.
6 89, P.S.C. MO No. 3. The program would have an annual budget cap of \$15,000.
7 The proposed program would offer customers the availability of two energy
8 efficiency rebates as summarized below.

9 Table 2: Residential Natural Gas Energy Efficiency Incentive Program

Measure	Rebate Amount
Furnace (AFUE 95%)	\$300
Programmable Thermostat	\$25

10

11 Q. ARE THERE ANY FILING REQUIREMENTS ASSOCIATED WITH THE
12 PROMOTIONAL PRACTICES RULES?

13 A. Yes. 4 CSR 240-3.255(2)(B), Filing Requirements for Gas Utility Promotional
14 Practices, includes the following filing requirements:

15 (B) The utility shall provide the following supporting information
16 for each promotional practice:
17 1. A description of the advertising or publicity to be employed
18 with respect to the promotional practice;
19 2. For promotional practices that are designed to evaluate the
20 cost-effectiveness of potential demand-side resources, a
21 description of the evaluation criteria, the evaluation plan and
22 the schedule for completing the evaluation; and

1 3. For promotional practices that are designed to acquire
2 demand-side resources, documentation of the criteria used
3 and the analysis performed to determine that the demand-side
4 resources are cost-effective.
5

6 **Q. PLEASE DESCRIBE THE MARKETING PLAN FOR THE RESIDENTIAL**
7 **NATURAL GAS ENERGY EFFICIENCY INCENTIVE PROGRAM AS REQUIRED**
8 **BY 4 CSR 240-3.225(2)(B)1.**

9 A. Please see Schedule MRW-4.

10 **Q. PLEASE DESCRIBE THE EVALUATION PLAN FOR THE RESIDENTIAL**
11 **NATURAL GAS ENERGY EFFICIENCY INCENTIVE PROGRAM AS REQUIRED**
12 **BY 4 CSR 240-3.225(2)(B)2.**

13 A. Please see Schedule MRW-5.

14 **Q. PLEASE DESCRIBE THE COST EFFECTIVENESS ANALYSIS PERFORMED**
15 **AS REQUIRED BY 4 CSR 240-3.225(2)(B)3.**

16 A. SNG contracted with Apex Analytics to perform a cost-effectiveness analysis of
17 the proposed energy efficiency measures. Please see Schedule MRW-6 and
18 Schedule MRW-7.

19 **Q. ARE THE PROPOSED ENERGY EFFICIENCY MEASURES COST-**
20 **EFFECTIVE?**

21 A. Yes, the proposed measures are cost-effective. Both proposed measures passed
22 benefit cost tests with a score greater than one (1), including both the Total
23 Resource Cost Test ("TRC") and the Utility Cost Test ("UCT") as shown below.
24 Additional detail is shown in Schedule MRW-6 and Schedule MRW-7.

1 Table 3: Benefit/Cost Tests (Low Growth)

2

3 <u>Measure</u>	<u>Measure Level</u>	<u>TRC</u>	<u>TRC+ Admin</u>	<u>UCT</u>
4 Furnace	1.29		1.04	1.62
5 Thermostat	1.69		1.30	1.69

6 **Q. PLEASE DESCRIBE THE REQUESTED ACCOUNTING TREATMENT FOR THIS**
7 **PROGRAM.**

8 **A.** SNG requests approval for the deferral of program expenditures to a regulatory
9 asset account for recovery in the Company's next rate case with a six year
10 amortization period. Program expenditure amounts would then be included in rate
11 base in SNG's next general rate case and the amortization would begin with the
12 effective date of any rates resulting from the next general rate case. The
13 regulatory asset account would accrue interest at the rate of the Company's pre-
14 tax return on rate base through the Company's next rate case.

15

16 V. SUMMARY AND RECOMMENDATIONS

17 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

18 **A.** My recommendation is for the approval of the consolidated P.S.C. MO No. 3 tariff
19 book filed by SNG and the establishment of a new residential natural gas energy
20 efficiency incentive program.

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

22 **A.** Yes.

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


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

AFFIDAVIT OF MARTHA R. WANKUM

STATE OF COLORADO)
) ss
COUNTY OF JEFFERSON)

Martha R. Wankum, being first duly sworn on her oath, states:

1. My name is Martha R. Wankum. I work in Jefferson City, Missouri and I am employed by Summit Utilities, Inc. as the Missouri Regulatory Affairs Manager.
2. Attached hereto and made a part of hereof for all purposes is my Direct Testimony on behalf of Summit Natural Gas of Missouri, Inc. consisting of 19 pages, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.


Martha R. Wankum

Subscribed and sworn to before me this 2nd day of January, 2014.


Notary Public

My commission expires: 6/7/2016



STATEMENT OF QUALIFICATIONS

MARTHA R. WANKUM

I currently hold the position of Missouri Regulatory Affairs Manager for Summit Utilities, Inc. which is the parent company of Summit Natural Gas of Missouri, Inc. I hold a Master's Degree in Public Administration from the University of Missouri-Columbia and a Bachelor of Arts Degree in Political Science from Westminster College in Fulton, MO. Formerly, I have served in various regulatory and governmental affairs positions with the State of Missouri including the Missouri Senate Appropriations Committee; Legislative Coordinator for the Missouri Department of Revenue; and, the Missouri Public Service Commission.

CASE PARTICIPATION

SR-2007-0355	EW-2010-0187	GF-2013-0261
SR-2007-0357	EW-2011-0372	GE-2013-0349
QW-2007-0002	EO-2012-0008	GO-2013-0360
QW-2007-0003	EO-2012-0009	GA-2013-0404
WR-2007-0460	EO-2012-0142	GE-2013-0536
SR-2007-0461	EO-2012-0206	GE-2014-0010
EW-2010-0265	EW-2013-0101	GU-2014-0032
EX-2010-0368	GO-2012-0322	GR-2014-0096
EW-2009-0291	GR-2013-0256	GR-2014-0097
EW-2009-0292	GR-2013-0257	GR-2014-0086

SUMMARY OF TARIFF REVISIONS

Summit Natural Gas of Missouri, Inc. Tariff Revisions

Summit Natural Gas of Missouri, Inc. – P.S.C. MO 3

Sheet No.	Schedule	Designated	Cancelling
1	Title Page	Original Sheet No. 1	P.S.C. MO No. 1 6 th revised Sheet No. 1
2	Gallatin Certificated Area	Original Sheet No. 2	P.S.C. MO No. 1 4 th revised Sheet No. 2
3	Gallatin Certificated Area	Original Sheet No. 3	P.S.C. MO No. 1 4 th revised Sheet No. 3
3A	Warsaw Certificated Area	Original Sheet No. 3A	P.S.C. MO No. 1 5 th revised Sheet No. 3A
3B	Lake of the Ozarks Area	Original Sheet No. 3B	P.S.C. MO No. 1 3 rd revised Sheet No. 3B
3C	Rogersville Certified Area	Original Sheet No. 3C	P.S.C. MO No. 2 2 nd revised Sheet No. v
3D	Branson Certified Area	Original Sheet No. 3D	P.S.C. MO No. 2 Original Sheet No. v.1
4	Legal Description	Original Sheet No. 4	P.S.C. MO No. 1 5 th revised Sheet No. 4
4A	Legal Description	Original Sheet No. 4A	P.S.C. MO No. 1 6 th revised Sheet 4A
4B	Legal Description	Original Sheet No. 4B	P.S.C. MO No. 1 Original Sheet No. 4D
4C	Legal Description	Original Sheet No. 4C	P.S.C. MO No. 1 Original Sheet No. 4E
4D	Legal Description	Original Sheet No. 4D	P.S.C. MO No. 2 Original Sheet No. vi
4E	Legal Description	Original Sheet No. 4E	P.S.C. MO No. 2 1 st revised Sheet No. vii
4F	Legal Description	Original Sheet No. 4F	P.S.C. MO No. 2 1 st revised Sheet No. viii
4G	Legal Description	Original Sheet No. 4G	P.S.C. MO No. 2 Original Sheet No. ix
4H	Legal Description	Original Sheet No. 4H	P.S.C. MO No. 2 2 nd revised Sheet No. x
4I	Legal Description	Original Sheet No. 4I	P.S.C. MO No. 2 Original Sheet No. xiii
4J	Legal Description	Original Sheet No. 4J	P.S.C. MO No. 2 Original Sheet No. xi
4K	Legal Description	Original Sheet No. 4K	P.S.C. MO No. 2 Original Sheet No. xii
5	Table of Contents	Original Sheet No. 5	P.S.C. MO No. 1 3 rd revised Sheet No. 5
6	Table of Contents	Original Sheet No. 6	P.S.C. MO No. 1 3 rd revised Sheet No. 6
7	Table of Contents	Original Sheet No. 7	P.S.C. MO No. 1 1 st revised Sheet No. 7
8	General Service	Original Sheet No. 8	P.S.C. MO No. 1 3 rd revised Sheet No. 10
9	General Service	Original Sheet No. 9	P.S.C. MO No. 1 4 th revised Sheet No. 11
10	General Service	Original Sheet No. 10	P.S.C. MO No. 1 Original Sheet No. 11A
11	General Service	Original Sheet No. 11	P.S.C. MO No. 2 2 nd revised Sheet No. 1
12	General Service	Original Sheet No. 12	
13	Optional General Service	Original Sheet No. 13	P.S.C. MO No. 2 3 rd Revised Sheet No. 1.1
14	Optional General Service	Original Sheet No. 14	
15	Commercial Service	Original Sheet No. 15	P.S.C. MO No. 1 3 rd revised Sheet No. 13
15A	Commercial Service	Original Sheet No. 15A	P.S.C. MO No. 1 2 nd revised Sheet No. 14
16	Commercial Service	Original Sheet No. 16	P.S.C. MO No. 1 3 rd revised Sheet No. 15
16A	Commercial Service	Original Sheet No. 16A	P.S.C. MO No. 1 3 rd revised Sheet No. 16
17	Commercial Service	Original Sheet No. 17	P.S.C. MO No. 1 Original Sheet No. 15A
17A	Commercial Service	Original Sheet No. 17A	P.S.C. MO No. 1 Original Sheet No. 16A
18	Large General Service	Original Sheet No. 18	P.S.C. MO No. 2 2 nd revised Sheet No. 1.2
19	Large General Service	Original Sheet No. 19	
20	Large Volume Service	Original Sheet No. 20	P.S.C. MO No. 1 3 rd revised Sheet No. 17
20A	Large Volume Service	Original Sheet No. 20A	P.S.C. MO No. 1 2 nd revised Sheet No. 18
21	Large Volume Service	Original Sheet No. 21	P.S.C. MO No. 1 3 rd revised Sheet No. 19
21A	Large Volume Service	Original Sheet No. 21A	P.S.C. MO No. 1 3 rd revised Sheet No. 20
22	Large Volume Service	Original Sheet No. 22	P.S.C. MO No. 1 Original Sheet No. 19A
22A	Large Volume Service	Original Sheet No. 22A	P.S.C. MO No. 1 Original Sheet No. 20A
23	Large Volume Service	Original Sheet No. 23	P.S.C. MO No. 2 2 nd revised Sheet No. 2
23A	Large Volume Service	Original Sheet No. 23A	P.S.C. MO No. 2 Original Sheet No. 3
24	Large Volume Service	Original Sheet No. 24	

24A	Large Volume Service	Original Sheet No. 24A
25	Transportation Service	Original Sheet No. 25 P.S.C. MO No. 1 3 rd revised Sheet No. 24
26	Transportation Service	Original Sheet No. 26 P.S.C. MO No. 1 3 rd revised Sheet No. 23
27	Transportation Service	Original Sheet No. 27
28	Transportation Service	Original Sheet No. 28 P.S.C. MO No. 2 3 rd revised Sheet No. 6
29	Transportation Service	Original Sheet No. 29
30	Transportation Service	Original Sheet No. 30 P.S.C. MO No. 1 1 st revised Sheet No. 25
31	Transportation Service	Original Sheet No. 31 P.S.C. MO No. 1 1 st revised Sheet No. 26
32	Transportation Service	Original Sheet No. 32 P.S.C. MO No. 1 1 st revised Sheet No. 27
33	Transportation Service	Original Sheet No. 33 P.S.C. MO No. 1 2 nd revised Sheet No. 28
34	Transportation Service	Original Sheet No. 34
35	Transportation Service	Original Sheet No. 35 P.S.C. MO No. 1 2 nd revised Sheet No. 29
36	Transportation Service	Original Sheet No. 36 P.S.C. MO No. 1 1 st revised Sheet No. 29A
37	Transportation Service	Original Sheet No. 37 P.S.C. MO No. 1 1 st revised Sheet No. 30
38	Transportation Service	Original Sheet No. 38
39	Transportation Service	Original Sheet No. 39 P.S.C. MO No. 1 1 st revised Sheet No. 33
39A	Transportation Service	Original Sheet No. 39A
40	Transportation Service	Original Sheet No. 40 P.S.C. MO No. 1 1 st revised Sheet No. 34
41	Transportation Service	Original Sheet No. 41 P.S.C. MO No. 1 1 st revised Sheet No. 35
42	Transportation Service	Original Sheet No. 42 P.S.C. MO No. 1 1 st revised Sheet No. 36
43	Transportation Service	Original Sheet No. 43 P.S.C. MO No. 1 2 nd revised Sheet No. 37
43A	Transportation Service	Original Sheet No. 43A P.S.C. MO No. 1 1 st revised Sheet No. 37A
43B	Transportation Service	Original Sheet No. 43B P.S.C. MO No. 1 1 st revised Sheet No. 37B
43C	Transportation Service	Original Sheet No. 43C P.S.C. MO No. 1 1 st revised Sheet No. 37C
44	Billing of License	Original Sheet No. 44 P.S.C. MO No. 1 1 st revised Sheet No. 38
45	MO School Pilot Program	Original Sheet No. 45 P.S.C. MO No. 1 2 nd revised Sheet No. 39
46	MO School Pilot Program	Original Sheet No. 46 P.S.C. MO No. 1 1 st revised Sheet No. 40
47	MO School Pilot Program	Original Sheet No. 47 P.S.C. MO No. 1 1 st revised Sheet No. 41
48	MO School Pilot Program	Original Sheet No. 48 P.S.C. MO No. 1 1 st revised Sheet No. 42
49	MO School Pilot Program	Original Sheet No. 49 P.S.C. MO No. 1 1 st revised Sheet No. 43
50	PGA Clause	Original Sheet No. 50 P.S.C. MO No. 1 1 st revised Sheet No. 44
51	PGA Clause	Original Sheet No. 51 P.S.C. MO No. 1 1 st revised Sheet No. 45
52	PGA Clause	Original Sheet No. 52 P.S.C. MO No. 1 2 nd revised Sheet No. 46
53	PGA Clause	Original Sheet No. 53 P.S.C. MO No. 1 1 st revised Sheet No. 47
54	PGA Clause	Original Sheet No. 54 P.S.C. MO No. 1 2 nd revised Sheet No. 48
55	PGA Clause	Original Sheet No. 55 P.S.C. MO No. 1 2 nd revised Sheet No. 49
56	PGA Clause	Original Sheet No. 56 P.S.C. MO No. 1 13 th revised Sheet No. 51
57	PGA Clause	Original Sheet No. 57 P.S.C. MO No. 1 7 th revised Sheet No. 52
58	PGA Clause	Original Sheet No. 58 P.S.C. MO No. 2 Original Sheet No. 27
59	General Items	Original Sheet No. 59 P.S.C. MO No. 1 2 nd revised Sheet No. 54
60	General Items	Original Sheet No. 60 P.S.C. MO No. 1 2 nd revised Sheet No. 55
61	Rules & Regulations	Original Sheet No. 61 P.S.C. MO No. 1 1 st revised Sheet No. 57
62	Rules & Regulations	Original Sheet No. 62 P.S.C. MO No. 1 1 st revised Sheet No. 58
63	Rules & Regulations	Original Sheet No. 63 P.S.C. MO No. 1 1 st revised Sheet No. 59
64	Rules & Regulations	Original Sheet No. 64 P.S.C. MO No. 1 1 st revised Sheet No. 60
65	Rules & Regulations	Original Sheet No. 65 P.S.C. MO No. 1 2 nd revised Sheet No. 61
66	Rules & Regulations	Original Sheet No. 66 P.S.C. MO No. 1 1 st revised Sheet No. 62
67	Rules & Regulations	Original Sheet No. 67 P.S.C. MO No. 1 1 st revised Sheet No. 63
68	Rules & Regulations	Original Sheet No. 68 P.S.C. MO No. 1 1 st revised Sheet No. 64
69	Rules & Regulations	Original Sheet No. 69 P.S.C. MO No. 1 2 nd revised Sheet No. 65
70	Rules & Regulations	Original Sheet No. 70 P.S.C. MO No. 1 Original Sheet No. 65A
71	Rules & Regulations	Original Sheet No. 71 P.S.C. MO No. 1 1 st Revised Sheet No. 66
72	Rules & Regulations	Original Sheet No. 72 P.S.C. MO No. 1 1 st Revised Sheet No. 67
73	Rules & Regulations	Original Sheet No. 73 P.S.C. MO No. 1 1 st Revised Sheet No. 68
74	Rules & Regulations	Original Sheet No. 74 P.S.C. MO No. 1 1 st Revised Sheet No. 69
75	Rules & Regulations	Original Sheet No. 75 P.S.C. MO No. 1 1 st Revised Sheet No. 70

76	Rules & Regulations	Original Sheet No. 76	P.S.C. MO No. 1	1 st Revised Sheet No. 71
77	Rules & Regulations	Original Sheet No. 77	P.S.C. MO No. 1	1 st Revised Sheet No. 72
78	Rules & Regulations	Original Sheet No. 78	P.S.C. MO No. 1	1 st Revised Sheet No. 73
79	Rules & Regulations	Original Sheet No. 79	P.S.C. MO No. 1	1 st Revised Sheet No. 74
80	Rules & Regulations	Original Sheet No. 80	P.S.C. MO No. 1	1 st Revised Sheet No. 75
81	Rules & Regulations	Original Sheet No. 81	P.S.C. MO No. 1	1 st Revised Sheet No. 76
82	Rules & Regulations	Original Sheet No. 82	P.S.C. MO No. 1	1 st Revised Sheet No. 78
83	Rules & Regulations	Original Sheet No. 83	P.S.C. MO No. 1	1 st Revised Sheet No. 79
84	Rules & Regulations	Original Sheet No. 84	P.S.C. MO No. 1	1 st Revised Sheet No. 81
85	Rules & Regulations	Original Sheet No. 85	P.S.C. MO No. 1	1 st Revised Sheet No. 83
86	Rules & Regulations	Original Sheet No. 86	P.S.C. MO No. 1	1 st Revised Sheet No. 84
87	Rules & Regulations	Original Sheet No. 87	P.S.C. MO No. 1	1 st Revised Sheet No. 85
88	Rules & Regulations	Original Sheet No. 88	P.S.C. MO No. 1	1 st Revised Sheet No. 86
89	Rules & Regulations	Original Sheet No. 89	P.S.C. MO No. 1	1 st Revised Sheet No. 87

SNG's filing proposes to cancel each of the revised sheets listed below in order to create a new, single SNG tariff book, P.S.C. MO No. 3:

Summit Natural Gas of Missouri, Inc. (formerly Missouri Gas Utility, Inc.) – P.S.C. MO 1

Sheet No.	Schedule	Designated	Cancelling
1	Title Page	P.S.C. MO 3 Original Sheet 1	6 th revised Sheet No. 1
1A	Adoption	Cancelled	1 st revised Sheet No. 1A
2	Northern Certified Area	P.S.C. MO 3 Original Sheet 2	4 th revised Sheet No. 2
3	Northern Certified Area	P.S.C. MO 3 Original Sheet 3	4 th revised Sheet No. 3
3A	Southern Certified Area	P.S.C. MO 3 Original Sheet 3A	5 th revised Sheet No. 3A
3B	Lake Certified Area	P.S.C. MO 3 Original Sheet 3B	3 rd revised Sheet No. 3B
3C	Southern Service Area	Cancelled	Original Sheet No. 3C
4	Legal Description	P.S.C. MO 3 Original Sheet 4	5 th revised Sheet No. 4
4A	Legal Description	P.S.C. MO 3 Original Sheet 4A	6 th revised Sheet No. 4A
4B	Blank Page	Cancelled	1 st revised Sheet No. 4B
4C	Legal Description	Cancelled	Original Sheet No. 4C
4D	Legal Description	P.S.C. MO 3 Original Sheet 4B	Original Sheet No. 4D
4E	Legal Description	P.S.C. MO 3 Original Sheet 4C	Original Sheet No. 4E
5	Table of Contents	P.S.C. MO 3 Original Sheet 5	3 rd revised Sheet No. 5
6	Table of Contents	P.S.C. MO 3 Original Sheet 6	3 rd revised Sheet No. 6
7	Table of Contents	P.S.C. MO 3 Original Sheet 7	1 st revised Sheet No. 7
8	Table of Contents	Cancelled	1 st revised Sheet No. 8
9	Blank Page	Cancelled	2 nd revised Sheet No. 9
10	General Service	P.S.C. MO 3 Original Sheet 8	3 rd revised Sheet No. 10
11	General Service	P.S.C. MO 3 Original Sheet 9	4 th revised Sheet No. 11
11A	General Service	P.S.C. MO 3 Original Sheet 10	Original Sheet No. 11A
12	Blank Page	Cancelled	2 nd Revised Sheet No. 12
13	Commercial Service	P.S.C. MO 3 Original Sheet 15	3 rd revised Sheet No. 13
14	Commercial Service	P.S.C. MO 3 Original Sheet 15A	2 nd revised Sheet No. 14
15	Commercial Service	P.S.C. MO 3 Original Sheet 16	3 rd revised Sheet No. 15
15A	Commercial Service	P.S.C. MO 3 Original Sheet 17	Original Sheet No. 15A
16	Commercial Service	P.S.C. MO 3 Original Sheet 16A	3 rd revised Sheet No. 16
16A	Commercial Service	P.S.C. MO 3 Original Sheet 17A	Original Sheet No. 16A
17	Large Volume Service	P.S.C. MO 3 Original Sheet 20	3 rd revised Sheet No. 17
18	Large Volume Service	P.S.C. MO 3 Original Sheet 20A	2 nd revised Sheet No. 18
19	Large Volume Service	P.S.C. MO 3 Original Sheet 21	3 rd revised Sheet No. 19
19A	Large Volume Service	P.S.C. MO 3 Original Sheet 22	Original Sheet No. 19A
20	Large Volume Service	P.S.C. MO 3 Original Sheet 21A	3 rd revised Sheet No. 20

20A	Large Volume Service	P.S.C. MO 3 Original Sheet 22A	Original Sheet No. 20A
21	Interruptible Service	Cancelled	3 rd revised Sheet No. 21
22	Interruptible Service	Cancelled	2 nd revised Sheet No. 22
23	Transportation Service	P.S.C. MO 3 Original Sheet 26	3 rd revised Sheet No. 23
24	Transportation Service	P.S.C. MO 3 Original Sheet 25	3 rd revised Sheet No. 24
25	Transportation Service	P.S.C. MO 3 Original Sheet 30	1 st revised Sheet No. 25
26	Transportation Service	P.S.C. MO 3 Original Sheet 31	1 st revised Sheet No. 26
27	Transportation Service	P.S.C. MO 3 Original Sheet 32	1 st revised Sheet No. 27
28	Transportation Service	P.S.C. MO 3 Original Sheet 33	2 nd revised Sheet No. 28
29	Transportation Service	P.S.C. MO 3 Original Sheet 35	2 nd revised Sheet No. 29
29A	Transportation Service	P.S.C. MO 3 Original Sheet 36	1 st revised Sheet No. 29A
30	Transportation Service	P.S.C. MO 3 Original Sheet 37	1 st revised Sheet No. 30
31	Transportation Service	Cancelled	
32	Transportation Service	Cancelled	
33	Transportation Service	P.S.C. MO 3 Original Sheet 39	1 st revised Sheet No. 33
34	Transportation Service	P.S.C. MO 3 Original Sheet 40	1 st revised Sheet No. 34
35	Transportation Service	P.S.C. MO 3 Original Sheet 41	1 st revised Sheet No. 35
36	Transportation Service	P.S.C. MO 3 Original Sheet 42	1 st revised Sheet No. 36
37	Transportation Service	P.S.C. MO 3 Original Sheet 43	2 nd revised Sheet No. 37
37A	Transportation Service	P.S.C. MO 3 Original Sheet 43A	1 st revised Sheet No. 37A
37B	Transportation Service	P.S.C. MO 3 Original Sheet 43B	1 st revised Sheet No. 37B
37C	Transportation Service	P.S.C. MO 3 Original Sheet 43C	1 st revised Sheet No. 37C
38	Billing of License	P.S.C. MO 3 Original Sheet 44	1 st revised Sheet No. 38
39	MO School Pilot Program	P.S.C. MO 3 Original Sheet 45	2 nd revised Sheet No. 39
40	MO School Pilot Program	P.S.C. MO 3 Original Sheet 46	1 st revised Sheet No. 40
41	MO School Pilot Program	P.S.C. MO 3 Original Sheet 47	1 st revised Sheet No. 41
42	MO School Pilot Program	P.S.C. MO 3 Original Sheet 48	1 st revised Sheet No. 42
43	MO School Pilot Program	P.S.C. MO 3 Original Sheet 49	1 st revised Sheet No. 43
44	PGA Clause	P.S.C. MO 3 Original Sheet 50	1 st revised Sheet No. 44
45	PGA Clause	P.S.C. MO 3 Original Sheet 51	1 st revised Sheet No. 45
46	PGA Clause	P.S.C. MO 3 Original Sheet 52	2 nd revised Sheet No. 46
47	PGA Clause	P.S.C. MO 3 Original Sheet 53	1 st revised Sheet No. 47
48	PGA Clause	P.S.C. MO 3 Original Sheet 54	2 nd revised Sheet No. 48
49	PGA Clause	P.S.C. MO 3 Original Sheet 55	2 nd revised Sheet No. 49
50	PGA Clause	Cancelled	1 st revised Sheet No. 50
51	PGA Clause	P.S.C. MO 3 Original Sheet 56	13 th revised Sheet No. 51
52	PGA Clause	P.S.C. MO 3 Original Sheet 57	7 th revised Sheet No. 52
53	Blank Page	Cancelled	1 st revised Sheet No. 53
54	General Items	P.S.C. MO 3 Original Sheet 59	2 nd revised Sheet No. 54
55	General Items	P.S.C. MO 3 Original Sheet 60	2 nd revised Sheet No. 55
56	General Items	Cancelled	1 st revised Sheet No. 56
57	Rules & Regulations	P.S.C. MO 3 Original Sheet 61	1 st revised Sheet No. 57
58	Rules & Regulations	P.S.C. MO 3 Original Sheet 62	1 st revised Sheet No. 58
59	Rules & Regulations	P.S.C. MO 3 Original Sheet 63	1 st revised Sheet No. 59
60	Rules & Regulations	P.S.C. MO 3 Original Sheet 64	1 st revised Sheet No. 60
61	Rules & Regulations	P.S.C. MO 3 Original Sheet 65	2 nd revised Sheet No. 61
62	Rules & Regulations	P.S.C. MO 3 Original Sheet 66	1 st revised Sheet No. 62
63	Rules & Regulations	P.S.C. MO 3 Original Sheet 67	1 st revised Sheet No. 63
64	Rules & Regulations	P.S.C. MO 3 Original Sheet 68	1 st revised Sheet No. 64
65	Rules & Regulations	P.S.C. MO 3 Original Sheet 69	2 nd revised Sheet No. 65
65A	Rules & Regulations	P.S.C. MO 3 Original Sheet 70	Original Sheet No. 65A
66	Rules & Regulations	P.S.C. MO 3 Original Sheet 71	1 st Revised Sheet No. 66
67	Rules & Regulations	P.S.C. MO 3 Original Sheet 72	1 st Revised Sheet No. 67
68	Rules & Regulations	P.S.C. MO 3 Original Sheet 73	1 st Revised Sheet No. 68
69	Rules & Regulations	P.S.C. MO 3 Original Sheet 74	1 st Revised Sheet No. 69
70	Rules & Regulations	P.S.C. MO 3 Original Sheet 75	1 st Revised Sheet No. 70

71	Rules & Regulations	P.S.C. MO 3 Original Sheet 76	1 st Revised Sheet No. 71
72	Rules & Regulations	P.S.C. MO 3 Original Sheet 77	1 st Revised Sheet No. 72
73	Rules & Regulations	P.S.C. MO 3 Original Sheet 78	1 st Revised Sheet No. 73
74	Rules & Regulations	P.S.C. MO 3 Original Sheet 79	1 st Revised Sheet No. 74
75	Rules & Regulations	P.S.C. MO 3 Original Sheet 80	1 st Revised Sheet No. 75
76	Rules & Regulations	P.S.C. MO 3 Original Sheet 81	1 st Revised Sheet No. 76
77	Rules & Regulations	Cancelled	1 st Revised Sheet No. 77
78	Rules & Regulations	P.S.C. MO 3 Original Sheet 82	1 st Revised Sheet No. 78
79	Rules & Regulations	P.S.C. MO 3 Original Sheet 83	1 st Revised Sheet No. 79
80	Rules & Regulations	Cancelled	1 st Revised Sheet No. 80
81	Rules & Regulations	P.S.C. MO 3 Original Sheet 84	1 st Revised Sheet No. 81
82	Rules & Regulations	Cancelled	2 nd Revised Sheet No. 82
83	Rules & Regulations	P.S.C. MO 3 Original Sheet 85	1 st Revised Sheet No. 83
84	Rules & Regulations	P.S.C. MO 3 Original Sheet 86	1 st Revised Sheet No. 84
85	Rules & Regulations	P.S.C. MO 3 Original Sheet 87	1 st Revised Sheet No. 85
86	Rules & Regulations	P.S.C. MO 3 Original Sheet 88	1 st Revised Sheet No. 86
87	Rules & Regulations	P.S.C. MO 3 Original Sheet 89	1 st Revised Sheet No. 87

Summit Natural Gas of Missouri, Inc. (formerly Southern Missouri Natural Gas, Inc.) – P.S.C. MO 2

Sheet No.	Schedule	Designated	Cancelling
Title	Title Page	Cancelled	1 st revised Title Sheet
A	Adoption Notice	Cancelled	1 st revised Sheet No. A
i	Table of Contents	Cancelled	Original Sheet No. i
ii	Table of Contents	Cancelled	Original Sheet No. ii
iii	Table of Contents	Cancelled	Original Sheet No. iii
v	Certificated Area Map	P.S.C. MO 3 Original Sheet 3C	2 nd revised Sheet No. v
vi	Legal Description	P.S.C. MO 3 Original Sheet 4D	1 st revised Sheet No. vi
vii	Legal Description	P.S.C. MO 3 Original Sheet 4E	1 st revised Sheet No. vii
viii	Legal Description	P.S.C. MO 3 Original Sheet 4F	1 st revised Sheet No. viii
iv	Table of Contents	Cancelled	1 st revised Sheet No. iv
v.1	Certificated Area Map	P.S.C. MO 3 Original Sheet 3D	Original Sheet No. v.1
v.2	Certificated Area Map	Cancelled	Original Sheet No. v.2
v.3	Certificated Area Map	Cancelled	Original Sheet No. v.3
ix	Legal Description	P.S.C. MO 3 Original Sheet 4G	Original Sheet No. ix
x	Legal Description	P.S.C. MO 3 Original Sheet 4H	2 nd revised Sheet No. x
xi	Legal Description	P.S.C. MO 3 Original Sheet 4J	Original Sheet No. xi
xii	Legal Description	P.S.C. MO 3 Original Sheet 4K	Original Sheet No. xii
xiii	Legal Description	P.S.C. MO 3 Original Sheet 4I	Original Sheet No. xiii
1	General Service	P.S.C. MO 3 Original Sheet 11	2 nd revised Sheet No. 1
1.1	Opt General Service	P.S.C. MO 3 Original Sheet 13	3 rd revised Sheet No. 1.1
1.2	Large General Service	P.S.C. MO 3 Original Sheet 18	2 nd revised Sheet No. 1.2
2	Large Volume Service	P.S.C. MO 3 Original Sheet 23	2 nd revised Sheet No. 2
3	Large Volume Service	P.S.C. MO 3 Original Sheet 23A	Original Sheet No. 3
4	Branson Lateral Pipeline Charge	Cancelled	2 nd revised Sheet No. 4
5	Blank Page	Cancelled	Original Sheet No. 5
6	Transportation Service	P.S.C. MO 3 Original Sheet 283 rd	revised Sheet No. 6
7	Transportation Service	Cancelled	Original Sheet No. 7
8	Transportation Service	Cancelled	Original Sheet No. 8
9	Transportation Service	Cancelled	Original Sheet No. 9
10	Transportation Service	Cancelled	Original Sheet No. 10
11	Transportation Service	Cancelled	1 st revised Sheet No. 11
12	Transportation Service	Cancelled	Original Sheet No. 12
13	Transportation Service	Cancelled	Original Sheet No. 13
14	Transportation Service	Cancelled	Original Sheet No. 14
15	Transportation Service	Cancelled	1 st revised Sheet No. 15

15.1	Transportation Service	Cancelled	1 st revised Sheet No. 15.1
16	Transportation Service	Cancelled	Original Sheet No. 16
17	Transportation Service	Cancelled	Original Sheet No. 17
18	Transportation Service	Cancelled	Original Sheet No. 18
18.1	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.1
18.2	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.2
18.3	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.3
18.4	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.4
18.5	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.5
18.6	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.6
18.7	School Program Rate Schedule	Cancelled	1 st revised Sheet No. 18.7
19	Billing of License, Occupation or Other	Cancelled	Original Sheet No. 19
20	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 20
21	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 21
22	Purchased Gas Adjustment	Cancelled	3 rd revised Sheet No. 22
23	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 23
24	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 24
25	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 25
26	Purchased Gas Adjustment	Cancelled	2 nd revised Sheet No. 26
26.3	Purchased Gas Adjustment	Cancelled	Original Sheet No. 26.3
26.4	Purchased Gas Adjustment	Cancelled	Original Sheet No. 26.4
27	Purchased Gas Adjustment	P.S.C. MO 3 Original Sheet 58	Original Sheet No. 27
28	General Items	Cancelled	2 nd revised Sheet No. 28
29	General Items	Cancelled	2 nd revised Sheet No. 29
30	General Items	Cancelled	1 st revised Sheet No. 30
31	Rules and Regulations	Cancelled	1 st revised Sheet No. 31
32	Rules and Regulations	Cancelled	1 st revised Sheet No. 32
33	Rules and Regulations	Cancelled	Original Sheet No. 33
34	Rules and Regulations	Cancelled	1 st revised Sheet No. 34
35	Rules and Regulations	Cancelled	Original Sheet No. 35
36	Rules and Regulations	Cancelled	Original Sheet No. 36
37	Rules and Regulations	Cancelled	Original Sheet No. 37
38	Rules and Regulations	Cancelled	Original Sheet No. 38
39	Rules and Regulations	Cancelled	Original Sheet No. 39
40	Rules and Regulations	Cancelled	1 st revised Sheet No. 40
41	Rules and Regulations	Cancelled	Original Sheet No. 41
42	Rules and Regulations	Cancelled	Original Sheet No. 42
43	Rules and Regulations	Cancelled	1 st revised Sheet No. 43
44	Rules and Regulations	Cancelled	Original Sheet No. 44
45	Rules and Regulations	Cancelled	1 st revised Sheet No. 45
46	Rules and Regulations	Cancelled	Original Sheet No. 46
47	Rules and Regulations	Cancelled	Original Sheet No. 47
48	Rules and Regulations	Cancelled	1 st revised Sheet No. 48
49	Rules and Regulations	Cancelled	Original Sheet No. 49
50	Rules and Regulations	Cancelled	Original Sheet No. 50
51	Rules and Regulations	Cancelled	Original Sheet No. 51
52	Rules and Regulations	Cancelled	1 st revised Sheet No. 52
53	Rules and Regulations	Cancelled	Original Sheet No. 53
54	Rules and Regulations	Cancelled	1 st revised Sheet No. 54
55	Rules and Regulations	Cancelled	2 nd revised Sheet No. 55
56	Rules and Regulations	Cancelled	Original Sheet No. 56
57	Rules and Regulations	Cancelled	Original Sheet No. 57
58	Rules and Regulations	Cancelled	Original Sheet No. 58
59	Rules and Regulations	Cancelled	1 st revised Sheet No. 59
60	Rules and Regulations	Cancelled	2 nd revised Sheet No. 60
61	Rules and Regulations	Cancelled	1 st revised Sheet No. 61

62	Rules and Regulations	Cancelled	Original Sheet No. 62
63	Rules and Regulations	Cancelled	3 rd revised Sheet No. 63
64	Rules and Regulations	Cancelled	2 nd revised Sheet No. 64
65	Rules and Regulations	Cancelled	3 rd revised Sheet No. 65
66	Rules and Regulations	Cancelled	2 nd revised Sheet No. 66
67	Rules and Regulations	Cancelled	Original Sheet No. 67
68	Rules and Regulations	Cancelled	1 st revised Sheet No. 68
69	Rules and Regulations	Cancelled	1 st revised Sheet No. 69
70	Rules and Regulations	Cancelled	1 st revised Sheet No. 70
71	Rules and Regulations	Cancelled	4 th revised Sheet No. 71
72	Experimental Rebate Program	Cancelled	2 nd revised Sheet No. 72
73	Experimental Rebate Program	Cancelled	2 nd revised Sheet No. 73
74	Experimental Rebate Program	Cancelled	2 nd revised Sheet No. 74
75	Experimental Rebate Program	Cancelled	1 st revised Sheet No. 75

COMPARISON OF MISCELLANEOUS TARIFF CHARGES

Missouri Gas Utility, Inc. Tariff (P.S.C. MO No. 1)			Southern Missouri Natural Gas Tariff (P.S.C. MO No. 2)		
Description	Amount	Sheet No.	Description	Amount	Sheet No.
Reconnection Charge-Residential	\$40	54	Reconnection Charge-Residential (During Business Hours)	\$30	28
			Reconnection Charge-Residential (Outside Business Hours)	\$50	28
Reconnection Charge-Commercial or Industrial	The greater of \$40 or actual charges for labor and materials.	54	Reconnection Charge-Commercial or Industrial	The greater of \$30 (during business hours) or \$50 (outside business hours) or actual charges for labor and materials.	28
Disconnect Charge-Residential	\$40	55	Connection Charge- During Normal Business Hours (doesn't specify customer class)	\$25	29
			Connection Charge- Outside Normal Business Hours (doesn't specify customer class)	\$50	29
Disconnect Charge-Commercial or Industrial	The greater of \$40 or actual charges for labor and materials	55			
Special Meter Reading Charge	\$20	55	Special Meter Reading Charge ("At Customer Request" or "Due to No Access")	\$30	29

Collection Trip Charge	\$40	55	Collection Trip Charge	\$30	30
			Delinquent bill fee, if work order issued to disconnect account	\$10	30
Non-Sufficient Funds Check Charge	\$30	55	Dishonored Check Charge	\$10	29
			Transfer of Service- Normal Business Hours	\$20	29
			Transfer of Service- Outside of Normal Business Hours	\$40	29
			Meter Test	\$75	29

**SNG RESIDENTIAL NATURAL GAS ENERGY EFFICIENCY INCENTIVE PROGRAM
MARKETING PLAN (AS REQUIRED BY 4 CSR 240-3.225(2)(B)1.**

I. Target Audience

Summit Natural Gas of Missouri, Inc. will target residential home owners in Missouri, with a focus on reaching the decision maker. This audience would be new customers who are likely using propane or electric, as well as current natural gas customers.

II. Goal

Our goal is to provide incentives to customers who purchase a new energy-efficient furnace and/or programmable thermostat to replace old models or for new installations. This will encourage the connection of more customers utilizing high efficiency appliances by providing them with a rebate to help offset the cost of these appliances. This will result in safer, more cost-saving construction and lower rates to all customers.

III. Messaging Strategy

Living in a more energy efficient home is attainable with Summit Natural Gas of Missouri Inc.'s Energy Efficiency Incentive Program. Achieve more savings with our rebate program while using The Natural Choice.

IV. Tactics

- Service Line Specialists
 - Service line specialists will discuss the program during the sales call with the customer. At this time they will inform the customer of the availability of energy efficiency incentives and how the rebates can benefit them.
- Radio Advertisements
 - Radio advertisements, along with any live spots that are read on-air, will include a mention of the availability of energy efficiency incentives. These 30 second advertisements will also include general information about service through Summit Natural Gas of Missouri, Inc.
- Newspaper Advertisements
 - Advertisements are run regularly in local newspapers throughout the Summit Natural Gas of Missouri, Inc. service areas. Advertisements would include general information about service

through Summit Natural Gas of Missouri, Inc. and the availability of energy efficiency incentives.

- Print
 - Other print materials outside of newspapers will be utilized, such as flyers, brochures, mailers, etc. These mediums will include general information about service through Summit Natural Gas of Missouri, Inc. and the availability of energy efficiency incentives.
- Online
 - A separate page will be created on the Summit Natural Gas of Missouri, Inc. website regarding the availability of energy efficiency incentives.
- Public Relations
 - Press releases detailing the Summit Natural Gas of Missouri, Inc. residential energy efficiency incentives will be released to media outlets to inform customers about the availability of the program. Public speaking engagements and events will be attended to educate the public on the energy efficiency incentives.

V. Timeline

December 2014	Development of marketing materials.
January-February 2015	Energy efficiency incentive program launches.
Ongoing	Marketing efforts to continue for duration of program.

**SNG RESIDENTIAL NATURAL GAS ENERGY EFFICIENCY INCENTIVE
PROGRAM EVALUATION, MEASUREMENT AND VERIFICATION PLAN ("EM&V
PLAN") (AS REQUIRED BY 4 CSR 240-3.225(2)(B)2.**

The primary goal of the evaluation is to document the energy savings attributable to the Residential Natural Gas Energy Efficiency Incentive Program.

The impact evaluation will focus primarily on validating installed measures, estimating actual energy and demand savings and determining persistence of measure impacts. The impact assessment will have two major components, as outlined below.

1. Sample-based verification of installed measures. The verification element of the evaluation will serve several objectives, including:
 - o Quantifying and verifying the type, specification and frequency of measures installed and operating.
 - o Determining the reasons for any discrepancies in measure counts.
2. Individual measure savings and realization rates will be estimated through engineering calculations based on the verification studies or through secondary research adjusted for differences in Summit Natural Gas of Missouri, Inc. customer characteristics and Heating Degree Days.

The process evaluation will identify any operational or performance issues with the program as identified by Summit Natural Gas of Missouri, Inc. staff and make recommendations for how the program design can be improved for better performance.

Surveys of program participants may also be administered. Surveys and interviews will focus on the opportunities for and barriers to participation and adoption of efficiency measures. Evaluators will assess the program processes that are effective, those that are not working, and ways the process can be improved.

The process and impact evaluations will be completed no later than four years after the energy efficiency incentive program effective date.

Avoided Costs and B-C Ratios, Developed for Summit Utilities MO Service Territory

The Summary Tab contains the key information for each measure. The Tabs include:

Measure Name	General measure name, measures selected based on CNG proposed 2014-16 plan.
Measure Description	Efficiency tiers/level of measure that was screened
Heat/Non-Heat	Whether or not measure should use a heating or non-heating load shape
Sector	Sector for savings
Number of Units	Default to screening one measure at a time, but can scale to multiple measures
Apex Savings Estimate (Thms)	Per unit savings, links to separate workbook that has algorithms and assumptions. Based on CNG modeling, adjusted for MO.
Incremental Cost	Links to separate workbook, matches CNG. Mostly based on IL TRM and CNG data tracking.
Administrative Costs	Estimate for non-incentive program costs (e.g., admin, marketing, EM&V, etc.). Based on CNG filing, looking at combination of incremental cost and incentive costs.
Expected Useful Life (EUL)	Links to separate workbook, matches CNG. Mostly based on IL TRM.
Net To Gross	Matches CNG, professional judgement.
Incentive	Matches CNG 2014-16 proposed programs
Measure Costs (Inc. Only)	Units * incremental costs
TRC Costs (Inc. and Admin.)	Units * (incremental costs + administrative costs)
Net Savings per Year	Units * Per Unit Savings * NTG
Measure Level TRC	Total Resource Cost Test, only screening for measure cost/savings (Low and High Avoided Cost Growth Scenarios)
TRC + Admin.	TRC Test, also incorporating potential administrative costs (Low and High Avoided Cost Growth Scenarios)
UCT	Utility Cost Test (Low and High Avoided Cost Growth Scenarios)

Measure Name	Measure Description	Heat/Non-Heat	Sector	Measure Specifics				Expected Useful Life (Yrs)	Net To Gross	Measure Cost (Inc. Admin)	TIC Costs (Inc. Admin)	Net Savings per Year	NPV Savings (Low Growth)	NPV Savings (High Growth)	D/C Tests (Low Growth)			D/C Tests (High Growth)		
				Number of Units	Apex Per Unit Annual Savings Estimate (Yrns)	Incremental Cost	Administrative Cost								Measure Level TIC	TIC	TIC + Admin.	UCT	Measure Level TIC	TIC
Radiant Thermostat	AFUE 95% Direct Install	Heat	Residential	1	123	\$ 754.00	\$ 180.00	20	0.60	\$ 300.00	\$ 934.00	98	\$ 776.25	\$ 430.82	1.29	1.04	1.38	1.11	1.73	
Thermostat	Direct Install	Heat	Residential	1	35	\$ 50.00	\$ 15.00	5	0.60	\$ 25.00	\$ 65.00	28	\$ 130.48	\$ 124.61	3.01	2.32	3.12	2.40	3.12	
Thermostat	Soft Install	Heat	Residential	1	19	\$ 50.00	\$ 15.00	5	0.60	\$ 25.00	\$ 65.00	15	\$ 67.47	\$ 60.78	1.69	1.30	1.74	1.34	1.74	

Avoided Costs Summary

UC	Non-heat	Heat
1	22.25	52.28
2	53.23	52.89
3	53.83	52.43
4	64.37	52.92
5	69.34	54.77
6		

2012 Annual Costs by Region-Orig MO

Usage Weight	MCU	SMWG	Avg. Weight
Total Avoided Cost	6.00	1.10	1.05

Parameters

Discount Rate	Total Avoided Cost (per this)
	11.26%
	\$ 1.05

Annual Escalation

Year	Average Monthly Rate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	1.05	0.85	0.83	1.04	1.10	1.11	1.17	1.17	1.15	1.11	0.84	0.87	0.77
2013	1.06	0.87	0.85	1.10	1.16	1.17	1.24	1.23	1.21	1.17	0.89	0.91	0.81
2014	1.06	0.85	0.85	1.07	1.13	1.14	1.20	1.20	1.18	1.14	0.86	0.80	0.70
2015	1.04	0.86	0.86	1.09	1.15	1.15	1.22	1.22	1.20	1.16	0.88	0.80	0.80
2016	1.03	0.86	0.86	1.09	1.15	1.15	1.22	1.22	1.20	1.16	0.88	0.80	0.80
2017	1.03	0.86	0.85	1.07	1.13	1.14	1.21	1.20	1.18	1.14	0.86	0.80	0.70
2018	1.04	0.86	0.86	1.09	1.14	1.15	1.22	1.22	1.19	1.15	0.87	0.80	0.80
2019	1.07	0.89	0.87	1.10	1.16	1.17	1.24	1.23	1.21	1.17	0.89	0.91	0.81
2020	1.08	0.90	0.89	1.12	1.18	1.19	1.26	1.26	1.24	1.19	0.90	0.93	0.83
2021	1.11	0.93	0.92	1.15	1.22	1.23	1.30	1.29	1.27	1.23	0.93	0.96	0.85
2022	1.15	0.95	0.95	1.20	1.26	1.26	1.35	1.35	1.32	1.28	0.97	1.00	0.89
2023	1.17	0.95	0.97	1.23	1.29	1.30	1.38	1.37	1.35	1.30	0.99	1.02	0.90
2024	1.19	0.99	1.00	1.25	1.31	1.32	1.40	1.39	1.37	1.32	1.00	1.03	0.92
2025	1.21	1.00	1.00	1.26	1.32	1.34	1.42	1.41	1.39	1.34	1.00	1.05	0.93
2026	1.23	1.02	1.02	1.28	1.34	1.36	1.44	1.43	1.41	1.36	1.03	1.06	0.94
2027	1.24	1.03	1.03	1.30	1.37	1.38	1.46	1.45	1.43	1.38	1.03	1.06	0.94
2028	1.25	1.03	1.03	1.30	1.37	1.39	1.47	1.46	1.44	1.39	1.03	1.06	0.94
2029	1.27	1.05	1.05	1.32	1.39	1.41	1.49	1.48	1.46	1.41	1.05	1.10	0.97
2030	1.28	1.06	1.06	1.34	1.41	1.43	1.51	1.50	1.47	1.43	1.06	1.11	0.99
2031	1.30	1.07	1.07	1.36	1.42	1.44	1.52	1.52	1.49	1.44	1.09	1.12	1.00
2032	1.32	1.09	1.09	1.38	1.45	1.47	1.55	1.54	1.52	1.47	1.11	1.14	1.02
2033	1.35	1.10	1.10	1.40	1.48	1.50	1.58	1.57	1.55	1.50	1.13	1.17	1.04
2034	1.38	1.12	1.12	1.42	1.50	1.52	1.60	1.59	1.57	1.52	1.15	1.19	1.06
2035	1.43	1.15	1.15	1.44	1.52	1.54	1.62	1.62	1.59	1.53	1.16	1.20	1.06
2036	1.43	1.15	1.15	1.44	1.52	1.54	1.62	1.62	1.59	1.53	1.16	1.20	1.06
2037	1.43	1.15	1.15	1.44	1.52	1.54	1.62	1.62	1.59	1.53	1.16	1.20	1.06
2038	1.43	1.15	1.15	1.44	1.52	1.54	1.62	1.62	1.59	1.53	1.16	1.20	1.06

NPV Avoided Costs

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	50.80	50.78	50.99	51.04	51.05	51.11	51.11	51.09	51.05	50.80	50.82	50.73
2013	51.51	51.49	51.88	51.98	52.00	52.11	52.10	52.07	52.00	51.51	51.56	51.39
2014	52.14	52.13	52.66	52.80	52.83	52.99	52.98	52.92	52.83	52.14	52.21	51.06
2015	52.71	52.67	53.37	53.54	53.58	53.79	53.77	53.70	53.58	52.71	52.80	52.48
2016	53.28	53.23	54.07	54.26	54.30	54.55	54.53	54.45	54.32	53.28	53.36	52.83
2017	53.84	53.78	54.72	54.93	54.96	55.25	55.21	55.09	54.86	53.84	53.93	53.37
2018	54.40	54.33	55.38	55.64	55.66	55.99	55.94	55.79	55.49	54.40	54.59	54.02
2019	54.97	54.89	56.05	56.34	56.35	56.71	56.65	56.48	56.14	54.97	55.14	54.59
2020	55.54	55.45	56.62	56.93	56.94	57.31	57.24	57.06	56.70	55.54	55.71	55.14
2021	56.11	56.01	57.28	57.60	57.61	58.00	57.92	57.74	57.38	56.11	56.34	55.70
2022	56.68	56.57	57.84	58.16	58.17	58.56	58.48	58.30	57.94	56.68	56.89	56.24
2023	57.25	57.14	58.40	58.72	58.73	59.12	59.04	58.86	58.50	57.25	57.46	56.81
2024	57.82	57.71	58.96	59.28	59.29	59.68	59.60	59.42	59.06	57.82	58.02	57.37
2025	58.39	58.28	59.52	59.84	59.85	60.24	60.16	59.98	59.62	58.39	58.58	57.93
2026	58.96	58.85	60.08	60.40	60.41	60.80	60.72	60.54	60.18	58.96	59.15	58.50
2027	59.53	59.42	60.64	60.96	60.97	61.36	61.28	61.10	60.74	59.53	59.72	59.07
2028	60.10	60.00	61.21	61.52	61.53	61.92	61.84	61.66	61.30	60.10	60.28	59.63
2029	60.67	60.57	61.77	62.08	62.09	62.48	62.40	62.22	61.86	60.67	60.84	60.19
2030	61.24	61.14	62.23	62.54	62.55	62.94	62.86	62.68	62.32	61.24	61.41	60.76
2031	61.81	61.71	62.79	63.10	63.11	63.50	63.42	63.24	62.88	61.81	61.98	61.33
2032	62.38	62.28	63.25	63.56	63.57	63.96	63.88	63.70	63.34	62.38	62.54	61.89
2033	62.95	62.85	63.81	64.12	64.13	64.52	64.44	64.26	63.90	62.95	63.11	62.46
2034	63.52	63.42	64.37	64.68	64.69	65.08	65.00	64.82	64.46	63.52	63.67	63.02
2035	64.09	64.00	64.94	65.25	65.26	65.65	65.57	65.39	65.03	64.09	64.24	63.59
2036	64.66	64.57	65.50	65.81	65.82	66.21	66.13	65.95	65.59	64.66	64.80	64.15
2037	65.23	65.14	66.06	66.37	66.38	66.77	66.69	66.51	66.15	65.23	65.37	64.72
2038	65.80	65.71	66.62	66.93	66.94	67.33	67.25	67.07	66.71	65.80	65.94	65.29

Avoided Costs Summary

Table with columns: EUL, Non-heat, Heat, Dispatch Rider, Total Avoided Cost (per kWh), 15.29%, \$ 1.05

2012 Annual Costs by Region--CRG MO

Large data table with columns: Year, Average, Monthly Ratio, and months Jan-Dec. Includes a 'System Weight' sub-table with columns: Usage Weight, Total Avoided Cost, MGD, SMNG, Avg.

NPV Avoided Costs

Table with columns: Year, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec. Shows NPV values for each month and year from 2012 to 2025.

Total Avoided Costs

Table with columns: Year, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec. Shows total avoided costs for each month and year from 2012 to 2025.

Table with columns: Year, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec. Shows NPV values for each month and year from 2012 to 2025.

SNG MO Commodity Charges		
	MGU	SMNG
Commodity Charge (per therm)	0.492	0.466
Upstream Pipeline (per therm)		
Purchase Gas Adjustment (per therm)	0.405	0.629
<i>Distribution Charge (per therm)</i>		
Total Avoided Cost (per therm)	0.897	1.095

(Source: EIA Annual Energy Outlook 2012)

Year	NG Price (Low Growth)	Y/Y Change	NG Price (High Growth)	Y/Y Change
2011	6.55	-	6.55	-
2012	6.34	-3.17%	6.36	-2.91%
2013	6.37	0.42%	6.49	2.13%
2014	6.18	-2.99%	6.38	-1.80%
2015	6.27	1.50%	6.52	2.24%
2016	6.19	-1.20%	6.57	0.77%
2017	6.20	0.02%	6.62	0.83%
2018	6.26	1.10%	6.72	1.46%
2019	6.34	1.29%	6.87	2.21%
2020	6.48	2.15%	7.05	2.69%
2021	6.68	3.14%	7.34	4.00%
2022	6.93	3.71%	7.64	4.10%
2023	7.08	2.06%	7.88	3.16%
2024	7.19	1.59%	8.01	1.62%
2025	7.29	1.44%	8.22	2.64%
2026	7.38	1.19%	8.42	2.48%
2027	7.49	1.58%	8.54	1.40%
2028	7.55	0.78%	8.65	1.35%
2029	7.62	0.93%	8.73	0.85%
2030	7.73	1.44%	8.87	1.63%
2031	7.82	1.07%	9.00	1.48%
2032	7.95	1.70%	9.14	1.49%
2033	8.11	2.09%	9.38	2.65%
2034	8.32	2.57%	9.68	3.25%
2035	8.63	3.65%	9.53	-1.59%

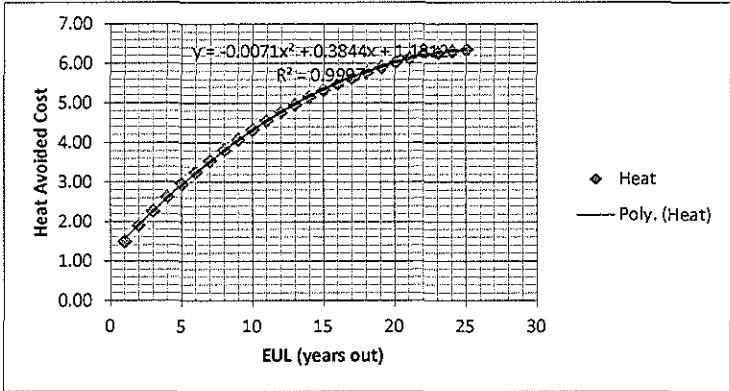
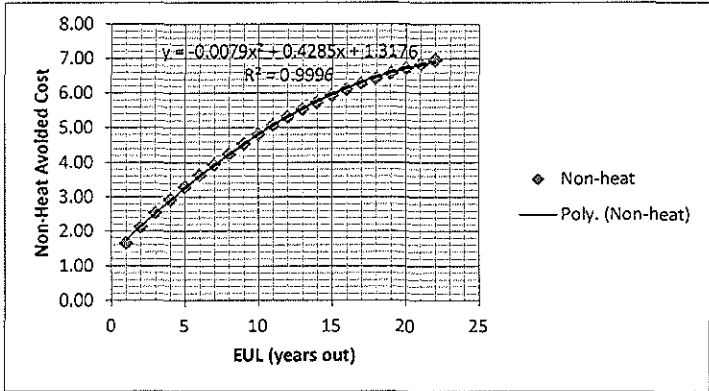
MO Gas Price Data		
Month	Price	Monthly Ratio
Jan	4.87	0.84
Feb	4.8	0.83
Mar	6.05	1.04
Apr	6.36	1.10
May	6.43	1.11
Jun	6.8	1.17
Jul	6.77	1.17
Aug	6.65	1.15
Sep	6.43	1.11
Oct	4.87	0.84
Nov	5.02	0.87
Dec	4.46	0.77
Avg.	5.79	1.00

Load Shapes		
Month	Non-Heat	Heat
Jan	0.083	0.180
Feb	0.083	0.149
Mar	0.083	0.122
Apr	0.083	0.079
May	0.083	0.037
Jun	0.083	0.011
Jul	0.083	0.002
Aug	0.083	0.005
Sep	0.083	0.024
Oct	0.083	0.076
Nov	0.083	0.131
Dec	0.083	0.183
Demand	0.003	0.02397

Usage Share by Division		
Region	MGU	SMNG
Volume	2,527,894	9,356,299
Share	0.213	0.787

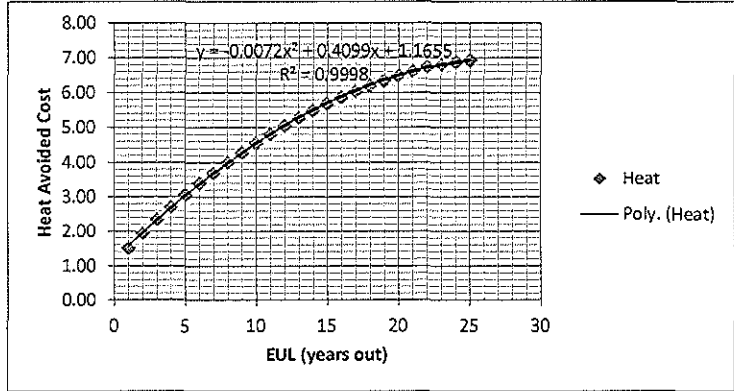
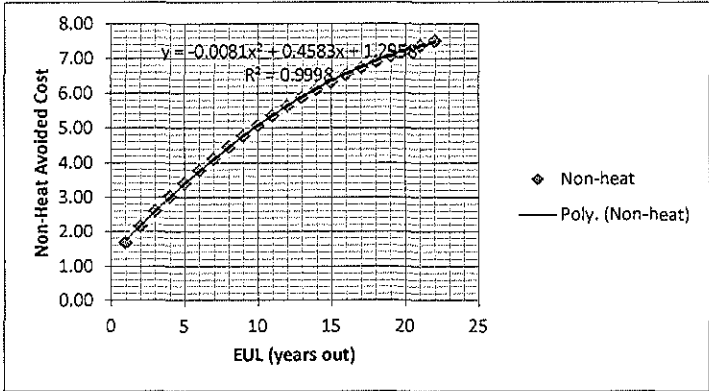
Service Territory	Actual Sales Volumes Ccf	*** THE MATH HERE IS ACTUAL - ADJUSTED CCF VOLUME	
MGU North	1,405,996.50	0.556	<< MGU North Weight for Avoided Cost
MGU South	1,121,897.64	0.444	<< MGU South Weight for Avoided Cost
SMNG	9,356,299.06		

EUL	Non-heat	Heat
1	1.66	1.49
2	2.12	1.90
3	2.55	2.28
4	2.94	2.63
5	3.30	2.96
6	3.64	3.26
7	3.96	3.55
8	4.26	3.82
9	4.55	4.08
10	4.82	4.32
11	5.08	4.55
12	5.31	4.77
13	5.54	4.96
14	5.74	5.15
15	5.94	5.32
16	6.12	5.48
17	6.28	5.63
18	6.44	5.77
19	6.58	5.90
20	6.72	6.03
21	6.85	6.14
22	6.97	6.25
23	6.99	6.26
24	7.05	6.32
25	7.09	6.35



NOTE: avoided costs were only calculated for 22 years out. Had to predict the 23rd through 25th years with a regression.

EUL	Non-heat	Heat
1	1.68	1.51
2	2.16	1.94
3	2.61	2.34
4	3.03	2.72
5	3.42	3.06
6	3.78	3.39
7	4.13	3.70
8	4.46	4.00
9	4.78	4.29
10	5.08	4.56
11	5.36	4.81
12	5.63	5.05
13	5.88	5.28
14	6.12	5.49
15	6.34	5.68
16	6.54	5.87
17	6.73	6.04
18	6.91	6.20
19	7.08	6.35
20	7.24	6.49
21	7.39	6.63
22	7.52	6.75
23	7.55	6.81
24	7.63	6.88
25	7.69	6.94



NOTE: avoided costs were only calculated for 22 years out. Had to predict the 23rd through 25th years with a regression.

CNG Colorado

	2014	2015	2016	Total
Residential Sector				
Planning and design	\$2,757	\$2,820	\$2,885	\$8,462
Administration and delivery	\$33,126	\$33,738	\$33,738	\$100,602
Advertising and promotion	\$5,050	\$5,167	\$5,285	\$15,502
Customer incentives	\$22,308	\$21,695	\$21,695	\$65,698
Equipment and installation	\$0	\$0	\$0	\$0
Measurement and verification	\$3,159	\$3,232	\$3,306	\$9,697
Miscellaneous	\$744	\$744	\$744	\$2,232
Total Residential	\$67,144	\$67,396	\$67,653	\$202,193

Incentives	\$65,698
Assumed incentive/inc cost	40%
Incremental Cost	\$164,245
Non-incentive costs (full admin)	\$101,591
Max ratio of non-incentive to inc cost	0.618533

Ratio to use for non-incentive costs 60% Rounded down from 62%%; Assumes that non-incentive costs are 66% of inc costs

CNG Rebate Program Costs 2012 annual report

	Planned	Actual	
Planning and design	\$2,654	\$6,433	
Administration and delivery	\$1,631	\$15,836	
Advertising and promotion	\$1,864	\$8,158	
Customer incentives	\$19,106	\$15,615	0.513196
Equipment and installation	\$0	\$0	0.339147
Measurement and verification	\$1,491	\$0	
Miscellaneous	\$0	\$0	
Total Costs	\$26,746	\$46,042	172%

Source

	Planned 2012	Actual 2012	
Planning and design	\$9,943	\$7,471	
Administration and delivery	\$18,287	\$19,858	
Advertising and promotion	\$9,144	\$16,445	
Customer incentives	\$93,721	\$57,345	0.534083
Equipment and installation	\$0	\$0	
Measurement and verification	\$7,029	\$6,253	
Miscellaneous	\$0	\$0	
Total Costs	\$138,124	\$107,371	

Schedule MRW-7 Savings Calculation

	Station	Avg. HDD	Weight
North	St. Joseph	5527	0.212711
South	Springfield	4635	0.787289
Weighted HDD >>>			4825

Savings Calculations for Residential Furnace Measure (95%)

Assumptions

Metric	Value	Source
Baseline Efficiency	0.8	IL TRM
Expected Useful Life	20	IL TRM
Incremental Cost	\$754	IL TRM
Square Footage	2340	RECS; All MO
Home Vintage	1975	RECS; All MO
Heating Degree Days	4825	TMY3

Calculations

Step 1: Regress percent regional on heating degree days

Alpha: -0.1338
Beta: 0.0001787

Step 2: Regress heating load on home vintage

Alpha: 617.09
Beta: -0.294

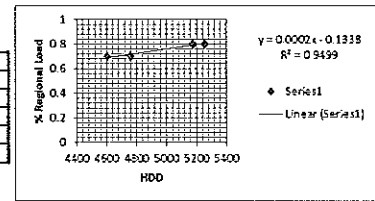
Step 3: For pre and post efficiency levels, calculate usage

usage = load * SF / 100 / AFUE

Input/Output	
2340	SF
1975	Vintage
0.837	\$/therm
0.8	AFUE pre
0.95	AFUE post
4825	HDD
0.73	% regional
776.4	Pre therms
653.8	Post therms
122.6	Ann. thm Savings
\$ 102.61	Ann \$ savings

Table 1: Percent regional and HDD

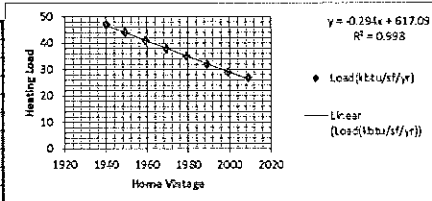
Energy Star - West North Central		
City	HDD	% Regional Load
Columbia	5173	0.8
Kansas City	5249	0.8
Springfield	4602	0.7
St. Louis	4757	0.7



NOTE: These regression estimates are used in other residential measure calculations throughout this spreadsheet.

Table 2: Home vintage and heating load

Energy Star - West North Central	
Vintage	Load (kbtu/sf/yr)
1940	47
1949	44
1959	41
1969	38
1979	35
1989	32
1999	29
2009	27



Savings Calculations for Residential Programmable Thermostat Measure

Assumptions

<i>Metric</i>	<i>Value</i>	<i>Source</i>
Baseline Efficiency	0.9	AR TRM
Expected Useful Life	5	IL TRM
Incremental Cost	\$50	Xcel
Assumed Savings	5%	IL TRM

Calculations

Step 1: Regress percent regional on heating degree days

Alpha: -0.1338
Beta: 0.000179

Step 2: Regress heating load on home vintage

Alpha: 617.09
Beta: -0.294

Step 3: For pre and post efficiency levels, calculate usage
usage = load * SF / 100 / AFUE; savings = 6.2% of usage

Input/Output	
2340	SF
1975	Vintage
0.837	\$/therm
0.9	AFUE
4825	HDD
0.73	% regional
690.2	Pre T'stat therms
655.7	Post therms
34.5	Ann. thm Savings
\$ 28.88	Ann \$ savings
\$ 24.18	Ann \$ savings