Exhibit No.: _____
Issue: Class Cost-of-Service and Rate Design
Witness: Kent D. Taylor
Exhibit Type: Direct
Sponsoring Party: Summit Natural Gas of Missouri, Inc.
Case No.: GR-2014-0086
Date: January 2, 2014

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-2014-0086

DIRECT TESTIMONY

OF

KENT D. TAYLOR

ON BEHALF OF

SUMMIT NATURAL GAS OF MISSOURI, INC.

Jefferson City, Missouri
January 2, 2014

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SUMMIT NATURAL GAS OF MISSOURI, INC.

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Kent D. Taylor, 777 29th Street, Suite 200, Boulder, Colorado, 80303.

Q. ON WHOSE BEHALF IS YOUR TESTIMONY PRESENTED?

A. Summit Natural Gas of Missouri, Inc. ("SNG" or the "Company").

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

A. I am the Chairman of KTM, an energy consulting firm.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND RELEVANT BUSINESS EXPERIENCE.

A. Information responsive to this question is shown in the attached **Schedule KDT-5**.

Q. HAVE YOU TESTIFIED BEFORE OTHER REGULATORY BODIES?

A. Yes. I have testified before the Federal Energy Regulatory Commission, the Colorado Public Utilities Commission, the Public Service Commission of Nevada, Regie Du Gaz Natural Du Quebec, the Missouri Public Service Commission ("Commission"), and the Florida Public Service Commission.

Q. IN WHAT CAPACITY?

A. I have testified as a cost of service, cost allocation & rate design witness and also as a client management representative.

Q. WHAT IS YOUR RELATIONSHIP WITH SNG?

A. SNG has retained KTM to (1) assist SNG in the development of a cost-of-service study, the goal of which is to determine the sufficiency of SNG's current base rates, (2) prepare a class cost-of-service study, and (3) calculate new rates, if appropriate.

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

A. I will explain the analysis and conclusions that lead SNG to request a change in its base rates for four of its five divisions. Toward that goal, I will, using the revenue requirements provided by Company witness, Mr. Tyson D. Porter, discuss (1) analytical constraints, (2) the classification of cost-of-service, (3) the class cost-of-service study and (4) rate design.

Q. ARE YOU SPONSORING SCHEDULES?

A. Yes, a list of Schedules is shown below.

- **Schedule KDT-1**, Cost-of-Service, segregated into customer-related and demand/commodity-related costs for each relevant division.
- **Schedule KDT-2,** Rate Base Summary, segregated into customer-related and demand/commodity-related costs for each relevant division.
- **Schedule KDT-3**, Class Cost-of-Service Study for each relevant division.
- **Schedule KDT-4,** Rate Design for each relevant division.

Q. WERE YOUR SCHEDULES PREPARED BY YOU OR UNDER YOUR

DIRECTION?

A. Yes. However, Schedule KDT-1 and Schedule KDT-2 are jointly sponsored by Mr. Porter in his direct testimony.

II. ANALYTICAL CONSTRAINTS

Q. HAVE REGULATORY CONSTRAINTS AFFECTED YOUR ANALYSIS?

A. Yes. SNG currently operates its Missouri distribution system as five discrete divisions, each with its own base rates. In a previous Commission order in Case No. GA-2012-0285, SNG agreed to avoid filing a rate increase for its Lake of the Ozarks Division until 2015, with an anticipated effective date of 2016. Therefore, the Lake of the Ozarks Division is excluded from this class cost-of-service analysis. In other previous cases, SNG agreed to prepare a class cost-of-service study in its next rate filing. Hence, the structure of my analytical effort.

Q. HAVE OTHER CONSTRAINTS AFFECTED YOUR ANALYSIS?

A. Yes. SNG's management, after having reviewed the results of my class cost-of-service study, has chosen to modify the indicated rate increase so as to accomplish several rate design goals as identified in Company witness Ms. Michelle A. Moorman's direct testimony.

Q. PLEASE DESCRIBE THOSE MODIFICATIONS.

A. Listed below is a summary of the modifications, previously explained in Ms. Moorman's testimony.

- Rather than request the monthly customer charges indicated in the rate design shown in Schedule KDT-4, Exhibit 2, SNG's management chose to limit the requested monthly customer charges as shown in Schedule KDT-4, Exhibit 3.
- For the Warsaw Division, SNG's management has capped the requested customer and commodity rates at those rates currently collected from the Lake of the Ozarks Division, as shown in Schedule KDT-4, Exhibit 4.
- For the Branson Division, SNG's management has chosen to cap the requested commodity rates at $0.20 per Ccf higher than the rate requested for the Rogersville Division, as shown in Schedule KDT-4, Exhibit 4.

III. CLASSIFIED COST-OF-SERVICE

Q. PLEASE EXPLAIN THE USE OF FUNCTIONALIZATION IN YOUR CLASS COST-OF-SERVICE STUDY.

A. A utility function is a discrete sequential activity for which costs can be identified and which may or may not be utilized by all customer classes. In this case, distribution-related activities represent the only relevant function and all customer classes participate in distribution-related costs. Therefore, the need to functionalize costs prior to additional analysis is not considered necessary.

Q. HOW ARE NATURAL GAS SUPPLY AND UPSTREAM TRANSPORTATION COSTS TREATED IN YOUR COST-OF-SERVICE STUDY?

A. Natural gas supply and upstream transportation costs are excluded from analysis entirely as such costs are recovered through SNG's Purchased Gas Adjustment ("PGA") filings.

Q. PLEASE DEFINE COST CLASSIFICATION AS USED IN YOUR ANALYSIS AND ITS RELEVANCE TO THE CLASS COST-OF-SERVICE STUDY.

A. As used in my analysis, classification is the term used to identify customer-related and demand/commodity-related costs so as to properly assign the costs to customer classes based on cost causing behavior. Rate base and cost-of-service are split into one of these two classifications for subsequent assignment to customer classes within each division. The entire cost-of-service is embraced by these two classifications. Customer-related costs are those costs which exist because the customer exists. Demand/commodity costs are those costs which exist because of peak natural gas demands the customer places on the system.

Q. HOW IS THE COST-OF-SERVICE AS SHOWN IN SCHEDULE KDT-1 CALCULATED?

A. The cost-of-service for each relevant division begins with the pro forma revenue requirement as explained by Mr. Porter in his direct testimony. Each cost-of-service element, beginning with rate base, is identified as either customer-related or demand/commodity-related. Significant analytical methods are discussed below.

- Rate Base – see Schedule KDT-2, Rate Base Summary.
    - o Direct customer related investments – Plant accounts (380 – 386) and

related reserves for depreciation are directly assigned to the customer classification.

- o Direct demand/commodity-related investments – Plant accounts (376 – 378) and related reserves for depreciation are directly assigned to the demand/commodity classification.
- o General plant investments were classified based on the relationship of direct customer investments or direct demand/commodity investments to the total direct investments for each division.
- o Other rate base – Allocated to classifications based on various allocation factors.

- Operating costs – see Schedule KDT-1
  - o Operation and Maintenance expense – Directly assigned when feasible or otherwise allocated to the appropriate classification.
  - o Depreciation expense – Assigned to classifications to reflect the gross plant assignments cited above in the rate base discussion.
  - o Taxes other than income taxes – Allocated to classifications using the relationship of direct customer investments or direct demand/commodity investments to the total of direct investments.
  - o Income taxes – Calculated for each classification based on classified rate base.
  - o Revenue credits- Miscellaneous revenue is identified in SNG's accounting system by division and assigned to the customer-related

classification. Transportation revenues related to special, discounted contracts are assigned to the demand/commodity classification. Special contracts included in revenue credits only exist in the Rogersville division and are dominated by schools participating in the Missouri school aggregation program.

- o Return on rate base – The rate of return provided by Mr. Porter in his Schedule TDP-3, Exhibit 3, is multiplied by the classified rate base in order to arrive at return on rate base for each classification component.

Q. DID YOU CONSIDER AN ADDITIONAL COMMODITY-ONLY CLASSIFICATION?

A. Yes. However, the additional analytical complexity was not justified in the absence of material costs which vary with annual retail and transportation volumetric usage.

IV. CLASS COST-OF-SERVICE STUDY

Q. PLEASE DESCRIBE THE NEXT STEPS OF YOUR RATE BASE ANALYSIS.

A. The next step was to assign classified rate base to each customer class within each relevant division. Schedule KDT-3, Exhibits 3 and 4, reflect the assignments. Customer-related rate base from Schedule KDT-2 was arrayed on Schedule KDT-3, Exhibit 3, and assigned to customer classes using the weighted customer count analysis allocation factor discussed below. Similarly, demand/commodity-related rate base from Schedule KDT-2 was arrayed on

Schedule KDT-3, Exhibit 4, and assigned to customer classes using the demand allocator discussed below. Rate base related to storage gas inventories was assigned exclusively to retail customer classes using a five (5) month winter sales volume allocator and was entirely classified as demand/commodity.

Q. PLEASE DESCRIBE THE NEXT STEPS OF YOUR CLASS COST-OF-SERVICE STUDY.

A. Schedule KDT-3, Exhibits 1 and 2, reflects the assignment of classified costs to customer classes. Each cost of service element from Schedule KDT-1 was arrayed on Exhibits 1 and 2, then assigned to customer classes in a fashion similar to that described for rate base. The primary allocator for customer-related costs was the weighted customer allocation factor and the primary allocator for demand/commodity-related costs was the demand allocator.

Q. HOW WAS YOUR DEMAND ALLOCATOR DETERMINED?

A. I used the coincident usage by customer class for each division for the coldest two months of the 2012-2013 winter as the basis upon which to develop demand allocation percentages. Retail sales volumes for the period were measured on a cycle billing basis while individual customer transportation volumes were available on a daily basis. The weighted average retail sales measurement dates were then used to define the beginning and end of the two month period for each division. The total transportation volume was accumulated for the same period. So, for each relevant division, the percentage

of the two month period demand of the total by customer class was used as the basis to allocate demand/commodity-related rate base and operating costs.

Q. HOW WAS YOUR CUSTOMER ALLOCATOR DETERMINED?

A. A customer weighting factor was developed from internal sources. The effect of meter cost, installation, and services yielded the appropriate weighting that, when applied to individual customer class customer counts, yields the weighted customer counts that form the basis of each customer class's percentage of the customer-related costs.

V. RATE DESIGN

Q. HAVE YOU PREPARED A SUMMARY OF PROPOSED RATES FOR THE RELEVANT DIVISIONS?

A. Yes. Schedule KDT-4, Exhibit 1, summarizes the proposed rates. The foundation for the values is discussed below.

Q. PLEASE EXPLAIN THE BASIS UPON WHICH COSTS WERE ASSIGNED TO CUSTOMER CLASSES FOR RATE DESIGN PURPOSES.

A. First, I performed a base case rate design as shown in Schedule KDT-4, Exhibit 2, wherein all customer-related costs as calculated in Schedule KDT-3, Exhibit 1, Class Cost-of-Service, were assigned to each customer class and divided by the annual billings for each customer class to determine the appropriate monthly customer charge. Next, the corresponding demand/commodity-related costs were divided by the weather normalized annual sales and transportation

volumes in order to arrive at the appropriate commodity charge for each customer class.

Q. DID THE ANALYTICAL METHOD DESCRIBED ABOVE PROVIDE FULL RECOVERY OF SNG'S COST-OF-SERVICE?

A. Yes.

Q. DID YOU PERFORM ALTERNATIVE RATE DESIGN CALCULATIONS?

A. Yes. SNG's management was concerned about the implications of large increases in the monthly customer charge for small volume customers. So, I performed an alternative rate design calculation as shown in Schedule KDT-4, Exhibit 3, and described below.

- Customer charges (excluding high-volume customer classes) were fixed at stated values below the values justified in Schedule KDT-4, Exhibit 2, but above current levels.
- Customer charge revenue was calculated using the customer charges cited above.
- The difference between the total revenue requirement for each customer class and the revenue calculated from the alternative customer charges was divided by the weather normalized sales and transportation volumes in order to arrive at the commodity charge for each customer class.

Q. DID THE ANALYTICAL METHOD DESCRIBED ABOVE PROVIDE FULL RECOVERY OF SNG'S COST-OF-SERVICE?

A. Yes.

Q. ARE THERE ADDITIONAL RATE DESIGN MODIFICATIONS SNG WISHES TO PROPOSE?

A. Yes. The results of the class cost-of-service cost allocation and rate design for the Gallatin and Rogersville Divisions produce the proposed rates shown in Schedule KDT-4, Exhibit 3, for those divisions. However, the resulting rates for the Branson and Warsaw Divisions would require existing customers of those divisions to absorb the costs related to future anticipated customer expansion and therefore should be modified.

Q. WHAT IS THE NATURE OF THE BURDEN FOR BRANSON?

A. Branson's current billing determinants reflect lower market penetration than anticipated. As can be inferred from an inspection of the full revenue requirement shown in Schedule KDT-4, Exhibit 3, the required rate increase is considered excessive by SNG's management.

Q. WHAT IS THE NATURE OF THE BURDEN FOR WARSAW?

A. The Warsaw and the Lake of the Ozarks divisions will eventually share much of the existing mainline investment and costs currently being utilized predominantly by Warsaw's customers. As is true for Branson, it is more appropriate to delay full recovery during a period of time when the system is still being developed.

Q. WHAT IS YOUR PROPOSAL TO DEAL WITH THE BURDENS CITED FOR BRANSON AND WARSAW?

A. Schedule KDT-4, Exhibit 4, shows the results of the proposals shown below.

- Branson customer charges – equivalent to Rogersville customer charges.
- Branson commodity charges – capped at rates that are equivalent to Rogersville rates plus $0.200 per Ccf.
- Warsaw customer charges – equivalent to current Lake of the Ozarks customer charges.
- Warsaw commodity charges – equivalent to Lake of the Ozarks commodity rates.

Q. HAVE YOU CALCULATED THE UNDERRECOVERY SNG WILL INCUR FROM YOUR PROPOSAL?

A. Yes. Schedule KDT-4, Exhibit 4, includes a section describing the underrecovery. The annual underrecovery at Branson will be $4.5 million. The annual underrecovery at Warsaw will be $0.8 million.

Q. PLEASE SUMMARIZE YOUR RATE DESIGN PROPOSALS.

A. SNG proposes the rates derived in Schedule KDT-4, Exhibit 3, for the Gallatin and Rogersville Divisions. SNG proposes the rates derived in Schedule KDT-4, Exhibit 4, for the Branson and Warsaw Divisions. Schedule KDT-4, Exhibit 1, summarizes the proposed rates.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

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 To Increase its Annual Revenues For Natural Gas Service	))))	Case No. GR-2014-0086

AFFIDAVIT OF TYSON D. PORTER

STATE OF COLORADO)
) **ss**
COUNTY OF JEFFERSON)

Tyson D. Porter, being first duly sworn on his oath, states:

1. My name is Tyson D. Porter. I work in Littleton, Colorado and I am employed by Summit Utilities, Inc. as a Regulatory Accountant.

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 18 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.

Tyson D. Porter

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

Erin Campbell
Notary Public

My commission expires: 6/7/2016