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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

Samut Exhibit No 16

Date 8 19 - 14 Reporter 4F

File No GR-2014 - 6086

OF KENT D. TAYLOR

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

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OF KENT D. TAYLOR

SUMMIT NATURAL GAS OF MISSOURI, INC.

- 1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A. Kent D. Taylor, 777 29th Street, Suite 200, Boulder, Colorado, 80303.
- 3 Q. ON WHOSE BEHALF IS YOUR TESTIMONY PRESENTED?
- 4 A. Summit Natural Gas of Missouri, Inc. ("SNG" or the "Company").
- 5 Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?
- 6 A. I am the Chairman of KTM, an energy consulting firm.
- 7 Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND RELEVANT
- 8 **BUSINESS EXPERIENCE.**
- 9 A. Information responsive to this question is shown in the attached <u>Schedule</u>
- 10 **KDT-5**.
- 11 Q. HAVE YOU TESTIFIED BEFORE OTHER REGULATORY BODIES?
- 12 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
- 15 Commission ("Commission"), and the Florida Public Service Commission.
- 16 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.

3 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.

8 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.

14 Q. ARE YOU SPONSORING SCHEDULES?

- 15 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.
- 22 Q. WERE YOUR SCHEDULES PREPARED BY YOU OR UNDER YOUR

1 DIRECTION?

A. Yes. However, Schedule KDT-1 and Schedule KDT-2 are jointly sponsored by

Mr. Porter in his direct testimony.

II. ANALYTICAL CONSTRAINTS

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Q. HAVE REGULATORY CONSTRAINTS AFFECTED YOUR ANALYSIS?

7 Α. 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 8 9 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. 10 Therefore, the Lake of the Ozarks Division is excluded from this class cost-of-11 service analysis. In other previous cases, SNG agreed to prepare a class cost-12 of-service study in its next rate filing. Hence, the structure of my analytical 13 effort. 14

15 Q. HAVE OTHER CONSTRAINTS AFFECTED YOUR ANALYSIS?

- 16 A. Yes. SNG's management, after having reviewed the results of my class cost-of17 service study, has chosen to modify the indicated rate increase so as to
 18 accomplish several rate design goals as identified in Company witness Ms.
 19 Michelle A. Moorman's direct testimony.
- 20 Q. PLEASE DESCRIBE THOSE MODIFICATIONS.
- A. Listed below is a summary of the modifications, previously explained in Ms.

 Moorman's testimony.

1	•	Rather than request the monthly customer charges indicated in the rate
2		design shown in Schedule KDT-4, Exhibit 2, SNG's management chose
3		to limit the requested monthly customer charges as shown in Schedule
4		KDT-4, Exhibit 3.

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- 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 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-6 7 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-8 service are split into one of these two classifications for subsequent assignment 9 to customer classes within each division. The entire cost-of-service is embraced 10 by these two classifications. Customer-related costs are those costs which exist 11 because the customer exists. Demand/commodity costs are those costs which 12 exist because of peak natural gas demands the customer places on the system. 13
- Q. HOW IS THE COST-OF-SERVICE AS SHOWN IN SCHEDULE KDT-1

 CALCULATED?
- 16 A. The cost-of-service for each relevant division begins with the pro forma revenue 17 requirement as explained by Mr. Porter in his direct testimony. Each cost-of-18 service element, beginning with rate base, is identified as either customer-19 related or demand/commodity-related. Significant analytical methods are 20 discussed below.
- Rate Base see Schedule KDT-2, Rate Base Summary.

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<u>Direct customer related investments</u> – Plant accounts (380 – 386) and

1	related reserves for depreciation are directly assigned to the customer
2	classification.
3	 Direct demand/commodity-related investments – Plant accounts (376 –
4	378) and related reserves for depreciation are directly assigned to the
5	demand/commodity classification.
6	 General plant investments were classified based on the relationship of
7	direct customer investments or direct demand/commodity investments
8	to the total direct investments for each division.
9	 Other rate base – Allocated to classifications based on various allocation
10	factors.
11	Operating costs – see Schedule KDT-1
12	 Operation and Maintenance expense – Directly assigned when feasible
13	or otherwise allocated to the appropriate classification.
14	 Depreciation expense – Assigned to classifications to reflect the gross
15	plant assignments cited above in the rate base discussion.
16	o Taxes other than income taxes - Allocated to classifications using the
17	relationship of direct customer investments or direct demand/commodity
18	investments to the total of direct investments.
19	o Income taxes - Calculated for each classification based on classified
20	rate base.
21	o Revenue credits- Miscellaneous revenue is identified in SNG's
22	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.

 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

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

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.

Α.

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?

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

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

3 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

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

- 13 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

 16 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

1	volumes	in	order	to	arrive	at	the	appropriate	commodity	charge	for	each
2	customer	cla	ass.									

- 3 Q. DID THE ANALYTICAL METHOD DESCRIBED ABOVE PROVIDE FULL
- 4 RECOVERY OF SNG'S COST-OF-SERVICE?
- 5 A. Yes.

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- 6 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.
- 20 Q. DID THE ANALYTICAL METHOD DESCRIBED ABOVE PROVIDE FULL
 21 RECOVERY OF SNG'S COST-OF-SERVICE?
- 22 A. Yes.

Q. ARE THERE ADDITIONAL RATE DESIGN MODIFICATIONS SNG WISHES

2 TO PROPOSE?

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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.

9 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?

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

20 Q. WHAT IS YOUR PROPOSAL TO DEAL WITH THE BURDENS CITED FOR

21 BRANSON AND WARSAW?

22 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.

8 Q. HAVE YOU CALCULATED THE UNDERRECOVERY SNG WILL INCUR

9 FROM YOUR PROPOSAL?

- 10 A. Yes. Schedule KDT-4, Exhibit 4, includes a section describing the
 11 underrecovery. The annual underrecovery at Branson will be \$4.5 million.
 12 The annual underrecovery at Warsaw will be \$0.8 million.
- 13 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.
- 18 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 19 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 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 Notational 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 2 nd day of January, 2014.
Notary Public Campbell
My commission expires: U 7 2010 NOTARY PUBLIC

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Classified Cost of Service - Gallatin

						Gallatin			
Line No	Description	Description Reference Total				ustomer Related	Demand/Comm Related		
	(a)	(b)		(c)		(d)	(e)		
1 2 3 4 5	O&M Depreciation and Amortization Taxes Other Than Income Taxes Income taxes Revenue credits Operating expenses	TDP-1 Exh 4 TDP-1 Exh 5 TDP-1 Exh 6 Line 9 * (TDP-3 Exh 1) TDP-1 Exh 2	\$	295,728 218,916 187,166 344,227 (52,879) 993,158	\$	166,204 101,187 83,275 160,833 (52,879) 458,619	\$	129,524 117,729 103,892 183,394 - 534,539	
7	Return on rate base	line 9 * (TDP-3 Exh 1)		664,072		310,273		353,799	
8	Total Cost of Service	line 6 + line 7	\$	1,657,230	\$	768,893	\$	888,337	
9	Rate Base - Proforma	KDT-2	\$	8,083,376	\$	3,776,783	\$	4,306,592	

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Classified Cost of Service - Warsaw

			Warsaw									
Line No	Description	Reference	Customer Related	Demand/Com Related	m							
	(a)	(b)	(c)	(d)	(e)	_						
1	O&M	TOP-1 Exh 4	\$ 243,568	\$ 111,606								
2	Depreciation and Amortization	TDP-1 Exh 5	385,524	107,625	277,89	99						
3	Taxes Other Than Income Taxes	TDP-1 Exh 6	265,560	107,933	157,62	26						
4	Income taxes	Line 9 * (TDP-3 Exh 1)	691,098	196,367	494,73	31						
5	Revenue credits	TDP-1 Exh 2	(8,810)	(8,810	-							
6	Operating expenses		\$ 1,576,940	\$ 514,721	\$ 1,062,2	19						
7	Return on rate base	line 9 * (TDP-3 Exh 1)	1,333,246	378,825	954,42	20						
8	Total Cost of Service	line 6 + line 7	\$ 2,910,186	\$ 893,547	\$ 2,016,63	39						
9	Rate Base - Proforma	KDT-2	\$ 16,228,847	\$ 4,611,227	\$ 11,617,62	<u>23</u>						

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Classified Cost of Service - Rogersville

				Rogersville				
Line No	Description	Direction		Customer	Demand/Comm			
140	Description	Reference	Total	Related	Related			
	(a)	(b)	(c)	(d)		(e)		
1	O&M	TDP-1 Exh 4	\$ 2,138,644	\$ 1,027,932	\$	1,110,712		
2	Depreciation and Amortization	TDP-1 Exh 5	2,087,004	505,976		1,581,027		
3	Taxes Other Than Income Taxes	TDP-1 Exh 6	741,485	180,914		560,571		
4	Income taxes	Line 9 * (TDP-3 Exh 1)	3,201,515	829,572		2,371,943		
5	Revenue credits	TDP-1 Exh 2, TDP-4 Exh 4	(451,161)	(98,095)		(353,066)		
6	Operating expenses		\$ 7,717,487	\$ 2,446,300	\$	5,271,187		
7	Return on rate base	line 9 * (TDP-3 Exh 1)	6,176,263	1,600,384		4,575,879		
8	Total Cost of Service	line 6 + line 7	\$ 13,893,750	\$ 4,046,684	\$	9,847,066		
9	Rate Base - Proforma	KDT-2	\$ 75,180,175	\$19,480,574	\$	55,699,601		

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Classified Cost of Service - Branson

				Branson	
Line No	Description	Reference	Total	Customer Related	Demand/Comm Related
	(a)	(b)	(c)	(d)	(e)
1 2 3 4 5	O&M Depreciation and Amortization Taxes Other Than Income Taxes Income taxes Revenue credits Operating expenses	TDP-1 Exh 4 TDP-1 Exh 5 TDP-1 Exh 6 Line 9 * (TDP-3 Exh 1) TDP-1 Exh 2	\$ 311,156 879,346 1,052,717 2,000,454 (11,861) \$ 4,231,811	\$ 161,970 98,343 444,832 189,512 (11,861 \$ 882,796	781,003 607,885 1,810,942
7	Return on rate base	line 9 * (TDP-3 Exh 1)	3,859,214	365,601	3,493,613
8	Total Cost of Service	line 6 + line 7	\$ 8,091,025	\$ 1,248,397	\$ 6,842,628
9	Rate Base - Proforma	KDT-2	\$ 46,976,037	\$ 4,450,258	\$ 42,525,780

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Rate Base - Gallatin

								Gallatin				
Line No	Description	Reference		Test Year	Interdivision Transfers		Proforma		Clas Customer		ssified Demand/comm	
	(a)	(b)		(c)		(d)		(e)		(f)		(9)
1	Gross Plant	TDP-2 Exh 2	\$	9,673,827	\$	-	\$	9,673,827		4,471,425		5,202,401
2	Reserve for Depreciation	TDP-2 Exh 3		(1,140,564)				(1,140,564)		(449,640)		(690,925)
3	Net Plant	Ene 1 - Ene 2	<u>\$</u>	8,533,263	\$		\$	8,533,263	\$	4,021,786	\$	4,511,477
	Other Rate Base											
4	Investment in Stored Gas	TDP-2 Exti 4	\$	117,543	\$	-	\$	117,543	\$	-	\$	117,543
5	Materials and supplies	TOP-2 Exti 4		24,869				24,869		24,869		
6	Prepayments	TDP-2 Exh 4		7,634				7,634		7,634		
7	Misc deferred debits							-				
8	Customer deposits	TDP-2 Exh 4		(19,063)				(19,063)		(19,063)		
9	Customer Advances					_		-				
10	Subtotal		\$	130,983	\$		\$	130,983	\$	13,440	\$	117,543
11	Deferred Tax Liability	TDP-2 Exh 5	\$	(580,870)	\$		\$	(580,870)	<u>\$</u>	(258,443)	\$	(322,428)
12	Total other rate base		\$	(449,887)	\$		\$	(449,887)	\$	(245,002)	\$	(204,884)
13	Total Rate Base at 9-30-13		\$	8,083,376	\$	-	\$	8,083,376	\$	3,776,783	\$	4,306,592

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Rate Base - Warsaw

					Warsaw		
Line			_	Interdivision			sified
No	Description	Reference	Test Year	Transfers	Proforma	Customer	Demand/comm
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Net Plant						
1	Gross Plant	TDP-2 Exh 2	\$ 23,368,345	\$ (5,116,409)	\$ 18,251,936	5,095,317	13,156,619
2	Reserve for Depreciation	TDP-2 Exh 3	(1,653,281)	361,361	(1,291,919)	(329,755)	(962,161)
3	Net Plant	line 1 - line 2	\$ 21,715,064	\$ (4,755,047)	\$ 16,960,017	\$ 4,765,562	\$ 12,194,458
	Other Rate Base						
4	Investment in Stored Gas	TDP-2 Exh 4	\$ -	\$ -	\$ -	\$ -	\$ -
5	Materials and supplies	TDP-2 Exh 4	82,873		82,873	82,873	
6	Prepayments	TDP-2 Exh 4	8,078		8,078	8,078	
7	Misc deferred debits		-		-		
8	Customer deposits	TDP-2 Exh 4	(13,681)		(13,681)	(13,681)	
9	Customer Advances				-		
10	Subtotal		\$ 77,270	\$ -	\$ 77,270	\$ 77,270	\$ -
11	Deferred Tax Liability	TDP-2 Exti 5	\$ (808,440)	\$	\$ (808,440)	\$ (231,605)	\$ (576,836)
12	Total other rate base		\$ (731,170)	<u>s -</u>	\$ (731,170)	\$ (154,335)	\$ (576,836)
13	Total Rate Base at 9-30-13		\$ 20,983,894	\$ (4,755,047)	\$ 16,228,847	\$ 4,611,227	\$ 11,617,623

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Rate Base - Rogersville

							R	ogersville				
Line						rdivision					sified	
No	Description	Reference	T6	est Year	Tra	insfers		Proforma		Customer	De	mand/comm
	(a)	(b)		(c)		(d)		(e)		(f)		(g)
	Net Plant											
1	Gross Plant	TDP-2 Exh 2	\$	98,980,487	\$	-	\$	98,980,487		23,996,983		74,983,503
2	Reserve for Depreciation	TDP-2 Exh 3	(19,433,347)				(19,433,347)	_	(3,403,995)	_	(16,029,352)
3	Net Plant	fine 1 ⋅ fine 2	_\$	79,547,140	<u>s</u>		\$	79,547,140	<u>\$</u>	20,592,989	<u>\$</u>	58,954,151
	Other Rate Base											
4	Investment in Stored Gas	TDP-2 Exh 4	\$	320,168	\$		\$	320,168	\$	-	\$	320,168
5	Materials and supplies	TDP-2 Extr 4		119,817				119,817		119,817		
6	Prepayments	TDP-2 Exh 4		56,362				56,362		56,362		
7	Misc deferred debits			-				-				
8	Customer deposits	TDP-2 Exh 4		(134,918)				(134,918)		(134,918)		
9	Customer Advances							-				
10	Subtotal		\$	361,430	\$	-	\$	361,430	\$	41,261	\$	320,168
11	Deferred Tax Liability	TDP-2 Exh 5	\$	(4,728,394)	\$		\$	(4,728,394)	\$	(1,153,676)	\$	(3,574,718)
12	Total other rate base		<u>_</u> \$	(4,366,965)	\$	-	\$	(4,366,965)	<u>\$</u>	(1,112,415)	\$	(3,254,550)
13	Total Rate Base at 9-30-13		\$	75,180,175	\$		\$	75,180,175	\$	19,480,574	_\$_	55,699,601

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Rate Base - Branson

							!	Branson				
Line						erdivision					sified	_
No	Description	Reference		Test Year		ransfers		Proforma		Customer	De	mand/comm
	(a)	(b)		(c)		(d)		(e)		(f)		(g)
	Net Plant											
1	Gross Plant	TOP-2 Extr 2	\$	51,934,105	\$	(21,373)	\$	51,912,732	\$	5,809,146	\$	46,103,586
2	Reserve for Depreciation	TDP-2 Exh 3	_\$_	(2,219,238)		178		(2,219,060)	_\$_	(193,455)	\$	(2,025,605)
3	Net Plant	Ene 1 - Ene 2	\$	49,714,867	_\$_	(21,195)	\$	49,693,672	\$	5,615,690	\$	44,077,982
	Other Rate Base											
4	Investment in Stored Gas	TOP-2 Exh 4	\$	46,721	\$	•	\$	46,721	\$	_	\$	46,721
5	Materials and supplies	TDP-2 Exh 4		677				677		677		
6	Prepayments	TDP-2 Exh 4		14,074				14,074		14,074		
7	Misc deferred debits			-				-				
8	Customer deposits	TDP-2 Exh 4		(10,140)				(10,140)		(10,140)		
9	Customer Advances			-								
10	Subtotal		\$	51,332	\$		\$	51,332	\$	4,611	\$	46,721
11	Deferred Tax Liability	TDP-2 Exh 5	_\$_	(2,768,967)	\$	-	\$	(2,768,967)	\$	(1,170,043)	\$	(1,598,923)
12	Total other rate base		_\$_	(2,717,635)	\$	<u> </u>	\$	(2,717,635)	\$	(1,165,433)	\$	(1,552,202)
13	Total Rate Base at 9-30-13		\$	46,997,232	_\$_	(21,195)	\$	46,976,037	\$	4,450,258	\$	42,525,780

Class Cost of Service - Customer Related Costs Assigned to Customer Classes - Gallatin

									Ga	llatii	າ			
Line No	Description	Reference	Allocation Factor		ustomer Related	(SS-Res	G	S-Com		cs	LVS	Tra	nsport
—	(a)	(b)	(c)		(d)		(c)		(f)		(9)	(h)	-	(l)
1 2 3 4	O&M Depreciation and Amortization Taxes Other Than Income Taxes Income taxes	KDT-1 KDT-1 KDT-1 KDT-1, Line 9 * (TDP-3 Exh 1)	alloc #8 alloc #8 alloc #8	\$	166,204 101,187 83,275 160,833	\$	131,389 79,992 65,831 127,143	\$	21,160 12,882 10,602 20,476	\$	9,940 6,051 4,980 9,618	\$ 619 377 310 599	\$	3,096 1,885 1,551 2,996
5 6	Revenue crodits Operating expenses	KDT-1	alloc #8	\$	(52,879) 458,619	\$	(41,802) 362,553	\$	(6,732) 58,388	\$	(3,162) 27,427	\$ 1,708	\$	(985) 8,542
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)		_	310,273		245,281	_	39,502		18,556	1,156		5,779
8	Total Cost of Service	lino 6 + line 7		\$	768,893	<u>s</u>	607,834	\$	97,890	\$	45,983	\$ 2,864	\$	14,322
9	Rate Base - Proforma	KDT-3 Exh 3		\$	3,776,783	s	2,985,665	\$	480,836	\$	225,866	\$ 14,070	\$	70,348

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086

Class Cost of Service - Customer Related Costs Assigned to Customer Classes - Warsaw

									Wa	ırsav	W			
Line			Allocation	, C	ustomer									
No	Description	Reference	Factor	:	Related		GS-Res	G	S-Com		CS	LVS	Tra	nsport
	(a)	(b)	(c)		(d)		(e)		(f)		(g)	 (h)		(i)
1	M.&O	KDT-1	alloc #8	\$	111,606	\$	74,924	\$	22,804	\$	4,962	\$ 8,916	\$	_
2	Depreciation and Amortization	KDT-1	alloc#8		107,625		72,252		21,991		4,785	8,598		_
3	Taxes Other Than Income Taxes	KDT-1	alloc #8		107,933		72,459		22,053		4,799	8,622		-
4	Income taxes	(KDT-1, Line 9) * (TDP-3, Exh 1)			196,367		131,827		40,123		8,731	15,687		
5	Revenue credits	KDT-1	alloc #8		(8,810)		(5.914)		(1,800)		(392)	(704)		
6	Operating expenses			\$	514,721	\$	345,548	\$	105,171	\$	22,885	\$ 41,118	\$	•
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)		_	378,825	_	254,317	_	77,404	_	16,843	 30,262		
8	Total Cost of Service	line 6 + line 7		\$	893,547	S	599,865	\$	182,574	\$	39,728	\$ 71,380	\$	•
9	Rate Base - Proforma	KDT-3 Exh 3	rate base - cust	\$	4,611,227	\$	3,095,654	\$	942,191	\$	205,018	\$ 368,364	\$	

Class Cost of Service - Customer Related Costs Assigned to Customer Classes - Rogersville

							Rog	gersville			
Line No	Description	Reference	Allocation Factor	Customer Related	GS-res	GS-Res-Op	GS-Comm	GS-Comm-Op	LGS	LVS	TS
	(a)	(b)	(c)	(d)	(o)	(f)	(8)	(h)	(I)	(0)	(k)
1 2 3 4 5 6	O&M Depreciation and Amortization Taxes Other Than Income Taxes Income taxes Revenue credits Operating expenses	KDT-1 KDT-1 KDT-1 (KDT-1, Line 9) * (TDP-3, Exh 1) KDT-1	alloc #8 alloc #8 alloc #8 alloc #8	\$ 1,027,932 505,976 180,914 829,572 (98,095) \$ 2,446,300	\$ 436,696 214,954 76,858 352,427 (41,674) \$ 1,039,261	\$ 414,193 203,877 72,897 334,266 (39,526) \$ 985,707	\$ 115,019 56,615 20,243 92,823 (10,976) \$ 273,724	\$ 42,354 20,848 7,454 34,181 (4,042) \$ 100,796	\$ 10,628 5,232 1,871 8,577 (1,014) \$ 25,293	\$ 1,904 937 335 1,536 (182) \$ 4,530	\$ 7,138 3,514 1,256 5,761 (681) \$ 16,988
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)		1,600,384	679,891	644,855	179,072	65,942	16,547	2,964	11,114
8	Total Cost of Service	lino 6 + lino 7		\$ 4,046,684	\$ 1,719,152	\$ 1,630,562	\$ 452,796	\$ 166,738	\$ 41,841	\$ 7,494	\$ 28,102
9	Rate Base - Proforma	KDT-3 Exh 3	rate base - cust	\$ 19,480,574	\$ 8,275,928	\$ 7,849,460	\$ 2,179,741	\$ 802,669	\$ 201,419	\$ 36,075	\$ 135,281

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086

Class Cost of Service - Customer Related Costs Assigned to Customer Classes - Branson

											DI	ansc	ori —			
Line No	Description	Reference	Allocation Factor		ustomer Related		GS-res	GS	S-Res-Op	GS	S-Comm	GS-	Comm-Op	LGS	 LVS	TS
	(a)	(b)	(c)		(d)		(e)		(f)		(9)		(h)	(1)	()	(k)
1 2 3	O&M Depreciation and Amortization Taxes Other Than Income Taxes	KDT-1 KDT-1 KDT-1	alloc #8 alloc #8 alloc #8	\$	161,970 98,343 444,832	\$	62,625 38,024 171,992	\$	19,388 11,772 53,247	\$	35,322 21,446 97,008	\$	7,304 4,435 20,059	\$ 34,233 20,785 94,016	\$ -	\$ 3,099 1,881 8,510
4 5	Income taxes Revenue credits	(KDT-1, Line 9) * (TDP-3, Exh 1) KDT-1	alloc #8		189,512 (11,861)	_	73,274 (4,586)		22,685 (1,420)	_	41,328 (2,587)		8,546 (535)	 40.054 (2.507)	 -	 3,626 (227)
6	Operating expenses			\$	882,796	\$	341,328	\$	105,671	\$	192,518	\$	39,809	\$ 186,580	\$ -	\$ 16,889
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)			365,601		141,358		43,763		79,730	_	16,487	 77.270	 _	 6,994
8	Total Cost of Service	line 6 + line 7		S	1,248,397	\$	482,686	\$	149,434	\$	272,248	\$	56,296	\$ 263,850	\$ 	\$ 23,883
9	Rate Base - Proforma	KDT-3 Exh 3	rate base - cust	s	4,450,258	\$	1,720,667	\$	532,700	\$	970,503	\$	200,682	\$ 940,568	\$ -	\$ 85,138

Class Cost of Service - Demand/Commodity Costs Assigned to Customer Classes - Gallatin

								Gal	llati	n				
Line No	Description	Reference	Allocation Factor		nand/Comm Related	SS-Res	G	S-Com		cs		LV\$	Tr	ansport
	(a)	(b)	(c)		(d)	(0)		(f)		(g)		(h)		(1)
1	O&M	KDT-1	alloc #12	\$	129,524	\$ 63,338	\$	14,290	\$	26,972	\$	8,737	\$	16,186
2	Depreciation and Amortization	KDT-1	alloc #12		117,729	57,571		12,989		24,516		7,941		14,712
3	Taxes Other Than Income Taxes	KDT-1	alioc #12		103,892	50,804		11,462		21,634		7,008		12,983
4	Income taxes	(KDT-1, Line 9) * (TDP-3, Exh 1)			183,394	89,993		20,286		38,367		12,456		22,293
5	Revenue credits	KDT-1	alloc #12					_				-		-
6	Operating expenses			\$	534,539	\$ 261,705	\$	59,028	\$	111,489	\$	36,141	\$	66,175
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)	alloc #12		353,799	 173,611	_	39,135		74,016	_	24,030		43,007
8	Total Cost of Service	line 6 + line 7		\$	888,337	\$ 435,316	\$	98,163	\$	185,506	\$	60,171	\$	109,181
9	Rate Base - Proforma	KDT-3 Exh 3		_\$	4,306,592	\$ 2,113,268	\$	476,369	\$	900,958	\$	292,501	\$	523,497

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086

Class Cost of Service - Demand/Commodity Costs Assigned to Customer Classes - Warsaw

								_	Wa	rsav	V			
Line No	Description	Reference	Allocation Factor		nand/Comm Related	G	S-Res	G	S-Com		cs	LVS	Tra	nsport
	(a)	(b)	(c)		(d)		(0)		(1)		(g)	(h)		(1)
1 2 3 4 5	O&M Depreciation and Amortization Taxes Other Than Income Taxos Income taxes Revenue credits	KDT-1 KDT-1 KDT-1 (KDT-1, Line 9) * (TDP-3, Exti 1) KDT-1	alloc #12 alloc #12 alloc #12 alloc #12	\$	131,962 277,899 157,626 494,731	\$	39,351 82,869 47,004 147,529	\$	16,914 35,620 20,204 63,413	\$	21,620 45,529 25,824 81,053	\$ 54,077 113,881 64,594 202,737		-
6 7	Operating expenses Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)	alloc #12	s 	1,062,219 954,420	\$	316,753 284,608	\$	136,151	\$	174,025 156,364	\$ 435,290 391,115	\$	
8	Total Cost of Service	ne 6 + ne 7		\$	2,016,639	\$	601,361	\$	258,485	\$	330,390	\$ 826,405	\$	MANNI (Address of the Control of the
9	Rate Base - Proforms	KDT-3 Exh 3		\$	11,617,623	\$	3,464,368	\$	1,489,100	\$	1,903,336	\$ 4,760,819	\$	

Class Cost of Service - Demand/Commodity Costs Assigned to Customer Classes - Rogersville

								Roge	ersville		
Line No	Description	Reference	Allocation Factor	Demand/Comm Related	GS-res	GS-Res-Op	GS-Comm	GS-Comm-Op	LGS_	LV\$	TS
<u>, </u>	(a)	(b)	(c)	(d)	(c)	(f)	(g)	(h)	(1)	(1)	(k)
1 2 3 4 5	O&M Depreciation and Amortization Taxes Other Than Income Taxes Income taxes Revenue credits Operating expenses	KDT-1 KDT-1 KDT-1 (KDT-1, Lne 9) * (TDP-3, Exh 1) KDT-1	alloc #12 alloc #12 alloc #12 alloc #12	\$ 1,110,712 1,581,027 560,571 2,371,943 (353,066) \$ 5,271,187	\$ 222,784 317,119 112,438 477,161 (70,817) \$ 1,058,684	\$ 168,890 240,404 85,238 361,796 (53,686) \$ 802,643	\$ 152,155 216,583 76,792 325,838 (48,366) \$ 723,002	\$ 20,270 28,853 10,230 43,443 (6,443) \$ 96,353	\$ 76,733 109,225 38,727 164,585 (24,391) \$ 364,879	\$ 72,310 102,929 36,495 154,986 (22,986) \$ 343,734	\$ 397,569 565,914 200,651 844,134 (126,377) \$ 1,881,892
7 8	Return on rate base Total Cost of Service	(KDT-1, Line 9) * (TDP-3, Exh 1) line 6 + line 7	alloc #12	4,575,879 \$ 9,847,066	920,523 \$ 1,979,208	697,966 \$ 1,500,609	628,597 \$ 1,351,599	83,808 \$ 180,161	317,513 \$ 682,392	298,993 \$ 642,727	1,628,478 \$ 3,510,370
9	Rate Base - Proforma	KDT-3 Exh 3		\$ 55,699,601	\$ 11,205,012	\$ 8,495,950	\$ 7,651,558	\$ 1,020,151	\$ 3,864,905	\$ 3,639,478	\$ 19,822,548

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086

Class Cost of Service - Demand/Commodity Costs Assigned to Customer Classes - Branson

								₽ra	enson		
Line No	Description (a)	Reference (b)	Allocation Factor	Demand/Comm Related	GS-res	GS-Res-Op		GS-Comm-Op	LGS	LVS	TS
	(4)	(0)	(c)	(d)	(e)	(f)	(g)	(h)	(1)	U)	(k)
1	О&м	KDT-1	alloc #12	\$ 149,185	\$ 14,219	\$ 1,958	\$ 17,145	\$ 943	\$ 36,534	s - s	78,386
2	Depreciation and Amortization	KDT-1	alloc #12	781,003	74,440	10,249	89,758	4,935	191,261	-	410,360
3	Taxes Other Than Income Taxes	KDT-1	alloc #12	607,885	57,939	7,977	69,862	3,841	148,866	-	319,399
4	Income taxes	(KDT-1, Line 9) " (TDP-3, Ext. 1)		1,810,942	172,713	23,788	208,357	11,463	444,149	-	950,472
5	Revenue credits	KDT-1	alloc #12			_	·-	-	-	-	· -
6	Operating expenses			\$ 3,349,015	\$ 319,311	\$ 43,972	\$ 385,123	\$ 21,182	\$ 820,811	\$ - \$	1,758,617
7	Return on rate base	(KDT-1, Line 9) * (TDP-3, Exh 1)	alloc #12	3,493,613	333,192	45,892	401,956	22,115	856,838	-	1,833,621
8	Total Cost of Service	line 6 + line 7		\$ 6,842,628	\$ 652,502	\$ 89,864	\$ 787,078	\$ 43,297	\$ 1,677,649	\$ - \$	3,592,238
9	Rate Base - Proforma	KDT-3 Exh 3		\$ 42,525,780	\$ 4,055,754	\$ 558,616	\$ 4,892,779	\$ 269,188	\$ 10,429,806	s - s	22,319,637

Class Cost of Service Study - Customer Related Rate Base Assignment to Customer Classes - Gallatin

Customer

Line			Allocation		Related								
No	Particulars	Reference	Factor		Costs	GS-Res		GS-Com	cs		LVS	Tr	ansport
	(a)	(b)	(c)		(d)	(e)		(f)	(g)		(h)		(i)
	Net Plant												
1	Gross Plant	TDP-2 Exh 2	alloc #8	\$	4,471,425 \$	3,534,801	\$	569,273	\$ 267,408	\$	16,657	\$	83,286
2	Reserve for Depreciation	TDP-2 Exh 3	alloc #8		(449,640)	(355,454)	_	(57,245)	 (26,890)		(1,675)		(8,375)
3	Net Plant	line 1 - line 2		s	4,021,786 \$	3,179,347	s	512,028	\$ 240,518	s	14,982	\$	74,911
	Other Rate Base												
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #8	\$	- \$		\$	-	\$ _	\$	-	\$	-
5	Materials and supplies	TDP-2 Exh 4	alloc #8		24,869	19,660		3,166	1,487		93		463
6	Prepayments	TDP-2 Exh 4	alloc #8		7,634	6,035		972	457		28		142
7	Misc deferred debits		alloc #8		-	-		_	-		-		-
8	Customer deposits	TDP-2 Exh 4	alloc #8		(19,063)	(15,070)		(2,427)	(1,140)		(71)		(355)
9	Customer Advances		alloc #8		-	-		-	 -		•		-
10	Subtotal			\$	13,440 \$	10,625	S	1,711	\$ 804	\$	50	\$	250
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #8		(258,443)	(204,307)		(32,903)	 (15,456)		(963)		(4,814)
12	Total other rate b	ase		\$	(245,002)	(193,682)		(31,192)	 (14,652)		(913)		(4,564)
13	Total Rate Base at	9-30-13		\$	3,776,783 \$	2,985,665	\$	480,836	\$ 225,866	\$	14,070	\$	70,348

Class Cost of Service Study - Customer Related Rate Base Assignment to Customer Classes - Warsaw

Customer

Line No	Particulars	Reference	Allocation Factor	R	elated Costs	G	S-Res	GS-Com	cs	LVS	Tra	ansport
······································	(a)	(b)	(c)		(d)		(c)	(f)	 (g)	 (h)		(i)
	Net Plant											
1	Gross Plant	TDP-2 Exh 2	alloc #8	\$	5,095,317	\$	3,420,638	\$ 1,041,103	\$ 226,540	\$ 407,035	\$	-
2	Reserve for Depreciation	TDP-2 Exh 3	alloc #8		(329,755)		(221,375)	 (67,377)	 (14,661)	 (26,342)		
3	Net Plant	line 1 - Ilne 2		\$	4,765,562	\$	3,199,264	\$ 973,726	\$ 211,879	\$ 380,693	\$	-
	Other Rate Base											
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #8	\$	-	s		\$ _	\$ -	\$ -	\$	-
5	Materials and supplies	TDP-2 Exh 4	alloc #8		82,873		55,635	16,933	3,685	6,620		-
6	Prepayments	TDP-2 Exh 4	alloc #8		8,078		5,423	1,651	359	645		-
7	Misc deferred debits		alloc #8		-		•	-	•	-		•
8	Customer deposits	TDP-2 Exh 4	alloc #8		(13,681)		(9,185)	(2,795)	(608)	(1,093)		-
9	Customer Advances		alloc #8		-			 -	 	 -		
10	Subtotal			\$	77,270	\$	51,874	\$ 15,788	\$ 3,435	\$ 6,173	\$	-
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #8		(231,605)		(155,483)	 (47,323)	 (10,297)	 (18,502)		<u>-</u>
12	Total other rate b	oase		\$	(154,335)	\$	(103,609)	\$ (31,534)	\$ (6,862)	\$ (12,329)	\$	
13	Total Rate Base at 9	9-30-13	ı	\$	4,611,227	\$	3,095,654	\$ 942,191	\$ 205,018	\$ 368,364	s	-

Class Cost of Service Study - Customer Related Rate Base Assignment to Customer Classes - Rogersville

Customer Line Allocation Related Reference **Particulars** No Factor Costs GS-res GS-Res-Op GS-Comm GS-Comm-Op LGS LVS TS (c) (d) (b) (e) (1) (g) Net Plant 1 Gross Plant alloc #8 \$ 23,996,983 \$ 10,194,634 \$ 9,669,292 5 2,685,096 \$ 988,761 \$ 248,116 44,439 166,645 TDP-2 Exh 2 (23,639) 2 (3.403.995)(1,446,118)(1,371,598)(380,883) (6,304)Reserve for Depreciation alloc #8 (140, 257)(35, 195)TDP-2 Exh 3 3 Net Plant \$ 20,592,989 \$ 8,748,515 \$ 8,297,694 \$ 2,304,213 \$ 848,504 \$ 212,921 38,135 143,006 line 1 - line 2 Other Rate Base Investment in Stored Gas TDP-2 Exh 4 alloc #8 \$ 4 119,817 50,902 48,279 222 5 Materials and supplies TDP-2 Exh 4 alloc #8 13,407 4,937 1,239 832 56,362 23,944 22,711 6 Prepayments TDP-2 Exh 4 alloc #8 6,307 2,322 583 104 391 7 Misc deferred debits alloc #8 Customer deposits (57,317)8 TDP-2 Exh 4 alloc #8 (134,918) (54,363)(15,096)(5,559)(1.395)(250)(937)9 Customer Advances alloc #8 17,529 427 76 16,626 4,617 10 Subtotal 41,261 \$ 1,700 \$ \$ 287 Deferred Tax Liability (1,153,676) (490,116) (464,860) (129,088)(47,536)(2,136)11 TDP-2 Exh 5 alloc #8 (11,928)(8,012)Total other rate base 12 \$ (1.112,415) \$ (472,587)(448,234) \$ (124,472) \$ (45,835)\$ (11,502)\$ (2.060)\$ (7,725)Total Rate Base at 9-30-13 \$ 19,480,574 \$ 8,275,928 13 \$ 7,849,460 \$ 2,179,741 \$ 802,669 201,419 36,075 135,281

Class Cost of Service Study - Customer Related Rate Base Assignment to Customer Classes - Branson

Line			Allocation		stomer													
No	Particulars	Reference	Factor		costs	GS-res	_G	S-Res-Op	G	S-Comm	GS-	Comm-Op	_	LGS		LV\$		TS
	(a)	(b)	(c)		(d)	(e)		(f)		(g)		(h)		(i)		()		(k)
	Net Plant																	
1	Gross Plant	TDP-2 Exh 2	alloc #8	\$	5,809,146 \$	2,246,073	\$	695,360	\$	1,266,847	\$	261,960	\$	1,227,771	\$	-	\$	111,134
2	Reserve for Depreciation	TDP-2 Exh 3	alloc #8		(193,455)	(74,798)		(23,157)	_	(42,188)		(8,724)		(40,887)		-	_	(3,701)
3	Net Plant	line 1 - line 2		\$	5,615,690 \$	2,171,275	\$	672,203	s	1,224,659	\$	253,236	\$	1,186,884	s	_	\$	107,433
	Other Rate Base																	
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #8	\$	- \$	-	\$	-	\$	-	\$		\$	•	\$	_	s	-
5	Materials and supplies	TDP-2 Exh 4	alloc #8		677	262		81		148		31		143		-		13
6	Prepayments	TDP-2 Exh 4	alloc #8		14,074	5,442		1,685		3,069		635		2,975		-		269
7	Misc deferred debits		alloc #8		-	-				-		-		_		-		-
8	Customer deposits	TDP-2 Exh 4	alloc #8		(10,140)	(3,921)		(1,214)		(2,211)		(457)		(2,143)		-		(194)
9	Customer Advances		alloc #8		-	-		-		-		-		-		-		-
10	Subtotal			\$	4,611 \$	1,783	\$	552	\$	1,006	\$	208	\$	975	\$	-	\$	88
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #8	(1,170,043)	(452,391)		(140,055)		(255,161)	_	(52,762)		(247,290)		-		(22,384)
12	Total other rate b	ase		\$ (1,165,433) \$	(450,608)	\$	(139,503)	\$	(254,155)	\$	(52,554)	\$	(246,316)	\$		\$	(22,296)
13	Total Rate Base at 9)-30-13		\$	4,450,258 \$	1,720,667	\$	532,700	\$	970,503	\$	200,682	\$	940,568	\$	-	\$	85,138

Class Cost of Service Study - Demand/Commodity-Related Rate Base Assignment to Customer Classes - Gallatin

Demand/Comm

Lino			Allocation	 Dalatad							
No	Particulars	Reference	Factor	Related Costs	GS-Res	,	S-Com	cs	LVS	т.	ransport
NO	(a)	(b)	(c)	 (d)	 (o)	_	(f)	 (g)	 (h)		(I)
	Net Plant										
1	Gross Plant	TDP-2 Exh 2	alloc #12	\$ 5,202,401	\$ 2,544,022	\$	573,985	\$ 1,083,352	\$ 350,909	\$	650,134
2	Reserve for Depreciation	TDP-2 Exh 3	alloc #12	 (690,925)	 (337,868)		(76,230)	(143,879)	 (46,604)		(86,343)
3	Net Plant	line 1 - line 2		\$ 4,511,477	\$ 2,206,153	\$	497,755	\$ 939,473	\$ 304,305	\$	563,790
	Other Rate Base										
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #11	\$ 117,543	\$ 64,784	\$	14,187	\$ 28,628	\$ 9,944	\$	-
5	Materials and supplies	TDP-2 Exh 4	ailoc #12	-	-		-	-	-		-
6	Prepayments	TDP-2 Exh 4	alloc #12	•	•		•	•	-		-
7	Misc deferred debits		alloc #12	-	•		-	-	-		-
8	Customer deposits	TDP-2 Exh 4	alloc #12	-	-		-	-	-		-
9	Customer Advances		alloc #12	 -	 -		-	 	 -		
10	Subtotal			\$ 117,543	\$ 64,784	\$	14,187	\$ 28,628	\$ 9,944	\$	-
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #12	 (322,428)	 (157,670)		(35,574)	 (67,143)	 (21,748)		(40,293)
12	Total other rate b	ase		\$ (204,884)	\$ (92,886)	\$	(21,386)	\$ (38,515)	\$ (11,804)	\$	(40,293)
13	Total Rate Base at 9	9-30-13		\$ 4,306,592	\$ 2,113,268	\$	476,369	\$ 900,958	\$ 292,501	\$	523,497

Class Cost of Service Study - Demand/Commodity-Related Rate Base Assignment to Customer Classes - Warsaw

Demand/Comm Line Allocation Related No Reference Costs GS-Com Factor **GS-Res** cs LVS **Particulars** Transport (b) (d) Net Plant alloc #12 \$ Gross Plant 13,156,619 \$ 3,923,296 \$ 1,686,362 \$ 2,155,472 \$ 5,391,489 \$ 1 TDP-2 Exh 2 Reserve for Depreciation 2 alloc#12 (962,161) (286, 916)(123, 326)(157,633)(394,287)TDP-2 Exh 3 3 Net Plant 3,636,380 1,563,036 1,997,839 4,997,202 line 1 - line 2 Other Rate Base 4 Investment in Stored Gas TDP-2 Exh 4 alloc #11 \$ 5 Materials and supplies TDP-2 Exh 4 alloc #12 6 Prepayments TDP-2 Exh 4 alloc #12 alloc #12 7 Misc deferred debits 8 Customer deposits TDP-2 Exh 4 alloc #12 Customer Advances alloc #12 9 10 Subtotal 11 Deferred Tax Liability (576,836)(172,012)(73,936)(94,504)(236,383)TDP-2 Exh 5 alloc #12 12 Total other rate base (576,836) \$ (172,012) \$ (73,936) (236,383) (94,504) 13 Total Rate Base at 9-30-13 11,617,623 \$ 3,464,368 1,489,100 1,903,336 4,760,819

Class Cost of Service Study - Demand/Commodity-Related Rate Base Assignment to Customer Classes - Rogersville

Demand/Comm

Line			Allocation		Related			_		_									
No	Particulars	Reference	Factor		Costs		GS-res	G	S-Res-Op	G	SS-Comm	GS	-Comm-Op		LGS		LVS		TS
	(a)	(b)	(c)		(d)		(e)		(f)		(g)		(h)		(1)		(I)		(k)
	Net Plant																		
1	Gross Plant	TDP-2 Exh 2	alloc #12	\$	74,983,503	\$	15,040,025	\$	11,401,676	\$	10,271,895	\$	1,368,429	\$	5,180,220	\$	4,881,619	\$	26,839,641
2	Reserve for Depreciation	TDP-2 Exh 3	alioc #12		(16,029,352)		(3,215,132)		(2,437,356)		(2,195,841)		(292,531)		(1,107,384)	(1,043,552)	_	(5,737,556)
3	Net Plant	line 1 - line 2		s	58,954,151	¢	11,824,893	\$	8,964,320	\$	8,076,054	s	1,075,897	\$	4,072,835	¢	3,838,067	s	21,102,085
٥	Netriant	une 1 - une 2		<u>~</u>	30,354,101	<u> </u>	11,024,030	<u> </u>	0,504,020	Ψ.	0,010,034	-	1,070,007	Ψ	4,072,000		0,000,001	<u> </u>	21,102,083
	Other Rate Base																		
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #11	\$	320,168	\$	97,128	\$	75,186	\$	65,200	\$	9,491	\$	39,028	\$	34,134	\$	_
5	Materials and supplies	TDP-2 Exh 4	alloc #12		-				-		-		-		-		-		-
6	Prepayments	TDP-2 Exh 4	alloc #12		-		-		-		_		-		-		-		-
7	Misc deferred debits		alloc #12		_		_		-		-		_		_				_
8	Customer deposits	TDP-2 Exh 4	alloc #12		-		-		-		-		_		-		-		-
9	Customer Advances		alloc #12		-		-		-		_		_		-		-		-
10	Subtotal			\$	320,168	\$	97,128	\$	75,186	\$	65,200	\$	9,491	\$	39,028	\$	34,134	\$	-
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #12		(3,574,718)		(717,009)		(543,557)		(489,696)		(65,238)		(246,959)		(232,723)		(1,279,537)
12	Total other rate b	ase		\$	(3,254,550)	\$	(619,881)	\$	(468,371)	\$	(424,496)	\$	(55,746)	\$	(207,931)	\$	(198,589)	\$	(1,279,537)
13	Total Rate Base at 9	3-30-13		\$	55,699,601	\$	11,205,012	\$	8,495,950	\$	7,651,558	\$	1,020,151	\$	3,864,905	\$	3,639,478	\$	19,822,548

Class Cost of Service Study - Demand/Commodity-Related Rate Base Assignment to Customer Classes - Branson

Demand/Comm

Lino			Allocation	- (Customer												
No	Particulars	Reference	Factor		Costs	GS-re	s	GS	-Res-Op	G	S-Comm	GS-	Comm-Op	LGS	J	LVS	TS
	(a)	(b)	(c)		(d)	(c)			(f)		(g)		(h)	(l)		(j)	 (k)
	Net Plant																
1	Gross Plant	TDP-2 Exh 2	alloc #12	\$	46,103,586	\$ 4,39	4,268	\$	604,994	\$	5,298,533	\$	291,330	\$ 11,290,401	\$	-	\$ 24,224,061
2	Reserve for Depreciation	TDP-2 Exh 3	alloc #12		(2,025,605)	(19	3,066)		(26,581)		(232,796)		(12,800)	(496,054)		-	 (1,064,307)
3	Net Plant	line 1 - line 2		\$	44,077,982	\$ 4,20	1,202	\$	578,413	\$	5,065,737	\$	278,530	\$ 10,794,346	\$	-	\$ 23,159,754
	Other Rate Base																
4	Investment in Stored Gas	TDP-2 Exh 4	alloc #11	\$	46,721	\$	6,950	\$	1,185	\$	10,802	\$	761	\$ 27,023	\$	_	\$ _
5	Materials and supplies	TDP-2 Exh 4	alloc #12		-		-		-		-		-	-		•	-
6	Prepayments	TDP-2 Exh 4	alloc #12		•		-		-		-		-	-		-	-
7	Misc deferred debits		alloc #12		-		•		-		-		-	-		-	-
8	Customer deposits	TDP-2 Exh 4	alloc #12		-		•		-		-		-	-		-	-
9	Customer Advances		alloc #12		-		-		-		-		-	-		-	-
10	Subtotal			\$	46,721	\$	5,950	\$	1,185	\$	10,802	\$	761	\$ 27,023	\$	-	\$ •
11	Deferred Tax Liability	TDP-2 Exh 5	alloc #12		(1,598,923)	(15	2,398)		(20,982)		(183,759)		(10,104)	 (391,564)		•	 (840,117)
12	Total other rate b	oase		\$	(1,552,202)	\$ (14	5,448)	\$	(19,797)	\$	(172,957)	\$	(9,343)	\$ (364,540)	\$		\$ (840,117)
13	Total Rate Base at 9	9~30-13		\$	42,525,780	\$ 4,05	5,754	\$	558,616	\$	4,892,779	\$	269,188	\$ 10,429,806	\$	-	\$ 22,319,637

Summit Natural Gas of Missouri, Inc. MPSC Case No. GR-2014-0086 Proposed Rates by Division

Line No	Parti	iculars	c	Sallatin	Warsaw	Rogersville	Branson
		(a)		(b)	(c)	(d)	(e)
	B-17-351/2013/4716-51/2014/11/05/4716/51/2014						
	Monthly Custo	mer Charges					
1	GS		\$	20.00	\$ 15.00		
2	CS			50.00	30.00		
3	LVS			300.00	100.00		
4	ISS		ca	ncelled	cancelled		
5	TS			300.00	100.00	\$ 300.00	\$ 300.00
6	GS-re	sidential				20.00	20.00
7		ommercial				40.00	40.00
8		sidential-optional				NA	NA
9	GS-co	ommercial-optional				NA	NA
10	1001	arge general service				50.00	50.00
10	200-1	alge general service				30.00	00.00
11	LVS-I	arge volume service				300.00	300.00
	Commodity Ch	arge per Ccf					
12	GS		\$	0.7214	\$ 0.9500		
	CS						
13		maximum		0.6860	1.0000		
14		minimum		0.2500	0.2500		
	LVS	•			4.0000		
15		maximum		0.4045	1.0000		
16	ISS	minimum		0.1000	0.1000		
17	100	maximum	~	ancelled	cancelled		
18		minimum		ancelled	cancelled		
10	TS	Hattinigin		incomod	canonica		
19	10	maximum		0.4886	1.0000		
20		minimum		0.1000	0.1000		
				******	*****		
21	GS-re	esidential				\$ 0.7396	\$ 0.9396
22	GS-re	esidential-optional				1.2055	1.4055
23		ommercial				0.6848	0.8848
24	GS-co	ommercial-optional				1.2686	1.4686
	LGS-	large general service					
25	1.00	maximum				0.6067	0.8067
26		minimum				0.0860	0.2860
						5 5 5 5	
	LVS-I	arge volume service					
27		maximum				0.5759	0.7759
28		minimum				0.0500	0.2500
	TO .	amounts per Mcf - repla	CO MALIDATI	ile			
29	10-8	amounts per wici - repia maximum	CO IVIIVID I	0 0		5.2063	7.2063
30		minimum				3.3000	5.3000
00							

Class Cost-of-Service and Rate Design

Demand/Commodity Costs Allocated Based on 2 Coldest Months of 2012 - 2013 Winter (2-MO)

_				Gallatin					
Line No	Particulars	Reference	Cost of Service	GS - res	GS - comm	cs	LVS	ISS	TS
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(1)
	Customer Related Costs								
1	Customer Class Cost Assignment	KDT-3 Exh 1	\$ 768,893	\$ 607,834	\$ 97,890	\$ 45,983	\$ 2,864	· · · · · · · · · · · · · · · · · · ·	\$ 14,322
2	Annual bills	customer count shaping	18.202	15,232	2,298	600			60
3	Menthly Customer Charge	in 3 + in 4		\$ 39.91	s 42.60	\$ 76.64	\$ 238.69		\$ 238,69
	Demand and Commodity Related Costs								
4	Customer Class Cost Assignment	KDT-3 Exh 2	\$ 888,337	\$ 435,316	\$ 98,163	\$185,508	\$ 60,171	<u>\$</u>	s 109 _, 181
5	Annual wx normalized sales volume - Mcf	rotall domand & TDP-4	195,399	84,715	19,560	38,095	20,926		32,102
6	Commedity Charge - Mcf	In 8 + In 9		\$ 5.139	\$ 5,018	\$ 4.870	\$ 2.875		\$ 3.401
				Warsaw					
Line			Cost of	Warsaw_					
Line No	Particulars (a)	Reference	Cost of Service (c)	Warsaw GS - ros	GS - comm	CS (f)	LVS (g)	ISS (h)	TS (I)
			Service	GS - ros					
	(a)		Service	GS - ros		(f)			
No	(a) Customer Related Costs	(b)	Service (c)	GS - ros (d)	(e)	(f)	(g)		
No 1	(a) Customer Related Costs Customer Class Cost Addignment	(b) KDT-3 Exh 1	\$ 893,547	GS - ros (d) \$ 599,865	(e) \$ 182,574	\$ 39,728 420	(g) S 71,380		
1 2	(a) Customer Related Coats Customor Class Cost Assignment Annual bills	(b) KDT-3 Exh 1 customer count shaping	\$ 893,547	GS - ros (d) \$ 599,865 10,024	\$ 182,574 2,331	\$ 39,728 420	(g) S 71,380 288		
1 2	(a) Customer Related Costs Customer Class Cost Adalgament Annual bills Monthly Customer Charge	(b) KDT-3 Exh 1 customer count shaping	\$ 893,547	GS - ros (d) \$ 599,865 10,024	\$ 182,574 2,331	\$ 39,728 420 \$ 94.59	(g) S 71,380 288		
1 2 3	(a) Customer Related Costs Customer Class Cost Addignment Annual bills Monthly Customer Charge Demand and Commodity Related Costs	(b) KDT-3 Exh 1 customer count shaping In 3 → In 4	\$ 893,547 13,083	GS - ros (d) \$ 599,865 10,024 \$ 59,84	\$ 182,574 2,331 \$ 78,32	\$ 39,728 420 \$ 94.59	(g) \$ 71,380 288 \$ 247.85		

Summit Natural Gas of Missouri, Inc. MPSC Case No GR-2014 - 0086 Class Cost-of-Service and Rate Design

Demand/Commodity Costs Allocated Based on 2 Coldest Months of 2012 - 2013 Winter (2-MO)

_		<u> </u>		Rogers	AITIE					
Line No	Particulars	Reference	Cost of Service	GS-res	GS-Res-Op	GS-Comm	GS-Comm - Op	LGS	LVS	TS
	(a)	(b)	(c)	(d)	(a)	(f)	(g)	(h)	(1)	(i)
	Customer Related Costs									
1 2	Customer Class Cost Assignment Customer cost reassignment to Damand	KDT-3 Exh 1	\$ 4,046,684	\$ 1,719,152	\$ 1,630,562 (1,630,582)	\$ 452,796	\$ 166,738 (166,738)	\$ 41,841	\$ 7,494	\$ 28,102
3	Not amount to be recovered from Custo	omer Charges		\$ 1,719,152	\$ -	\$ 452,796	\$ -	\$ 41,841	\$ 7,494	\$ 28,102
4	Annual bills	customer count shaping	128,822	56,820	53.896	12,574	4,272	804	98	360
5	Monthly Customer Charge	In 3 + In 4		\$ 30,26	\$	\$ 36.01	s <u>-</u>	S 52.04	\$ 78,06	s 78,06
	Domand and Commodity Related Costs									
6	Customer Class Cost Assignment	KDT-3 Exh 2	\$ 9,847.066	\$ 1,979,208	\$ 1,500,609	\$ 1,351,599	\$ 180,161	\$ 682,392	\$ 642,727	\$ 3,510,370
7 8	Customer cost reassignment to Domand Total amount to be recovered from Cer	mmodity Charges		\$ 1,979,208	1,630,562 \$ 3,131,171	\$ 1,351,599	\$ 346,899	\$ 682,392	\$ 642,727	\$ 3,510,370
9	Annual wx normalized cales volume - Mcf	retall domand & TDP-4	1,755,522	293,657	226,008	216,625	29,047	123,300	122,403	744,482
10	Commodity Charge - Mcf	In 8 ÷ In 9		\$ 6.74 Brans	<u>\$ 13.85</u>	\$ 6.24	\$ 11.94	\$ 5,53	\$ 5.25	\$ 4.72
10	Commodity Charge - Mcf	In 8 + In 9	Cost of				\$ 11.94	\$ 5.52	\$ 5.25	\$ 4.72
	Particulars	Reference	Service	Brans GS-res	On GS-Ros-Op	GS-Comm	GS-Comm - Op	LGS	\$ 5.25 LVS	\$ 4.72
				Brans	on					
 Line	Particulars	Reference	Service	Brans GS-res	On GS-Ros-Op	GS-Comm	GS-Comm - Op	LGS	LVS	
	Particulars (a)	Reference	Service	Brans GS-res	On GS-Ros-Op (e)	GS-Comm	GS-Comm - Op (g)	LGS	LVS	
Line No	Particulars (a) Customer Related Costs. Assignment	Reference (b) KDT-3 Exh 1	Sorvice (c)	Brans GS-res (d)	On GS-Ros-Op (e)	GS-Comm (f)	GS-Comm - Op	LGS (h)	LVS	TS 0
Line No	Particulars (a) Customer Rolated Costs. Assignment Customer cost rows/gnment to Demand	Reference (b) KDT-3 Exh 1	Sorvice (c)	GS-res (d)	GS-Ros-Op (e) \$ 149,434 (149,434)	GS-Comm (f) \$ 272.248	GS-Comm - Op (q) \$ 56,296 (56,298)	LGS (h)	LVS	TS 0)
Line No 1 2	Particulars (a) Customer Related Costs Assignment Customer cost reassignment to Demand Not amount to be recovered from Customer	Reference (b) KDT-3 Exh 1	(c) \$ 1,248,397	S 482,686	S 149,434 (149,434)	GS-Comm (f) \$ 272,248	\$ 56,296 (56,296)	LGS (h) \$ 263,850	LVS	TS (i) \$ 23,883
Line No 1 2 3	Particulars (a) Customer Related Costs Assignment Customer cost reassignment to Demand Not amount to be recovered from Customer Annual bills	Reference (b) KDT-3 Exh 1 emor Charges customer count shaping	(c) \$ 1,248,397	Brans GS-res (d) \$ 482,686 \$ 482,686 4,378	S 149,434 (149,434) \$ 1,356	GS-Comm (f) \$ 272,248 \$ 272,248 2,076	\$ 56,298 (56,288) \$ -	LGS (h) \$ 263,850 \$ 263,850 1,392	LVS	TS (f) \$ 23,883 \$ 23,883 96
Line No 1 2 3 4 5	Particulars (a) Customer Rolated Costs Assignment Customer cost rosssignment to Demand Not amount to be rocevered from Custo Annual bills Monthly Customer Charge Demand and Commodity Rolated Costs Customer Class Cost Assignment	Reference (b) KDT-3 Exh 1 emor Charges customer count shaping	(c) \$ 1,248,397	Brans GS-res (d) \$ 482,686 \$ 482,686 4,378	GS-Ros-Op (e) \$ 149,434 (149,434) \$ - 1,356 \$ -	GS-Comm (f) \$ 272,248 \$ 272,248 2,076	\$ 56,296 (56,288) \$	LGS (h) \$ 263,850 \$ 263,850 1,392	LVS (i)	TS (f) \$ 23,883 \$ 23,883 96
Line No	Particulars (a) Customer Related Costs Assignment Customer cost reassignment to Demand Not amount to be recovered from Custo Annual bills Monthly Customer Charge Demand and Commodity Related Costs	Reference (b) KDT-3 Exh 1 mer Charges customer count shaping in 3 + in 4 KDT-3 Exh 2	Sorvice (c) \$ 1,248,397 9,694	Brans GS-res (d) \$ 482,686 \$ 482,686 \$ 482,686 \$ 110,25	S 149,434 (149,434) 1,356	GS-Comm (f) \$ 272,248 \$ 272,248 \$ 2,076 \$ 131,14	\$ 56,296 (56,298) \$ - 396	LGS (h) \$ 263,850 \$ 263,850 1,392 \$ 189,55	LVS (i)	TS (0) \$ 23,883 \$ 23,883 96 \$ 248.78
1 1 2 3 4 5 5 8 7	Particulars (a) Customer Related Costs Assignment Customer cost reassignment to Demand Not amount to be recovered from Custo Annual bilis Monthly Customer Charge Demand and Commodity Related Costs Customer Class Cost Assignment Customer cost reassignment to Demand	Reference (b) KDT-3 Exh 1 mer Charges customer count shaping in 3 + in 4 KDT-3 Exh 2	Sorvice (c) \$ 1,248,397 9,694	Brans GS-res (d) \$ 482,686 \$ 482,686 4,378 \$ 110.25	S 149,434 (149,434) \$ - 1,356 \$.	\$ 272,248 \$ 272,248 \$ 2,076 \$ 131,14	\$ 56,296 (56,298) \$ - 396 \$ -	LGS (h) \$ 263,850 \$ 263,850 1,392 \$ 189,55	\$	TS (0) \$ 23,883 \$ 23,883 96 \$ 248.78
1 2 3 4 5 8 7 8	Particulars (a) Customer Related Costs Assignment Customer cost reassignment to Demand Not amount to be recovered from Custo Annual bills Monthly Customer Charge Demand and Commodity Related Costs Customer Class Cost Assignment Customer cost reassignment to Demand Not amount to be recovered from Custo	Reference (b) KDT-3 Exh 1 mor Charges customer count shaping in 3 + in 4 KDT-3 Exh 2	Sorvice (c) \$ 1,248,397 9,694 \$ 5,842,628	S 482,686 \$ 482,686 \$ 110,25 \$ 652,502	S 149,434 (149,434) \$ - 1,356 \$ - 5 89,884 149,434 \$ 239,288	S 272,248 S 272,248 2,076 S 131,14 S 787,078	\$ 56,296 (56,298) \$ - 396 \$ - \$ 43,297 56,298 \$ 99,503	LGS (h) \$ 263,850 \$ 263,850 1,392 \$ 189,55 \$ 1,677,649	LVS (t)	TS 0) \$ 23 \$ 23 \$ 24 \$ 3,592

Summit Natural Gas of Missouri, Inc. MPSC Case No. GR-2014 - 0086 Rate Design with Customer Charge at Stated Values

Line No	Particulars	Reference	Costs	GS	cs	LVS	Transport
	(a)	(b)	(c) (d)	(0)	(r)	(g)	(h)
	Gallatin						
	Rate Dosign Calculations						
1	Customer costs	KDT-1	\$ 768,893				
2	Noncustomer costs	KDT-1	888.337				
3	Total Revenue Requirement	line 1 + line 2	\$ 1,657,230				
4	Monthly Customer Charge	proposed			\$ 50,00		
5	Annual bills	TDP-1 Exh 3	_	17,530	600	12	60
6	Amount to Recover by Customer Class	line 4 * line 5	\$ 402,200	\$ 350,600	\$ 30,000	\$ 3,600	\$ 18,000
7	Residual amt from commodity charges	ne 3 - line 6	\$ 1,255,030				
8	Percent to recover from each customer class	alloc #12	100.00%	59.93%	20.82%	6.75%	12.50%
9	Amount to recover from each customer class	line 7 * line 8	\$ 1,255,030	\$ 752,190	\$ 261,348	\$ 84,654	\$ 156,839
10	annual volumes in Mcf	TDP-1 Exh 3	195,398	104,275	38,095	20,926	32,102
11	commodity rate per Mcf	∥no 9 + Hno 10	3	\$ 7,214	\$ 6.860	\$ 4,045	\$ 4,886
Line							
Line No	Particulars	Roforence	Costs	GS	cs	LVs	Transport
	Particulars (a)	Reference (b)	Costs (d)	GS (a)	CS (g)	LVS (h)	Transport (i)
	(a)						
	(a)	(b)	(c) (d)				
No	(a) Warsaw Rate Design Calculations Customer costs	(b)	(c) (d) S 893,547				
No	(a) Warsaw Rate Design Calculations Customer caste Noncustomer costs	(b) KDT-1 KDT-1	(c) (d) \$ 892,547 2,016,839				
No	(a) Warsaw Rate Design Calculations Customer costs	(b)	(c) (d) S 893,547				
No	Warsaw Rate Design Calculations Customer casts Noncustomer costs Total Revenue Requirement	(b) KDT-1 KDT-1 Hne 1 + line 2	\$ 890,547 2,016,839 \$ 2,910,186	(o)	(g)	(11)	
1 2 3	(a) Warsaw Rate Design Calculations Customer caste Noncustomer costs	(b) KDT-1 KDT-1	\$ 890,547 2,016,839 \$ 2,910,186		(g) \$50,000	(11)	(1)
1 2 3 4	(a) Warsaw Rate Pesign Calculations Customer casts Noncustomer costs Total Rovenue Requirement Menthly Customer Charge	KDT-1 KDT-1 lino 1 + lino 2 proposod	\$ 890,547 2,016,839 \$ 2,910,186	\$ 20,00 12,355	(g)	(11)	(1)
1 2 3 4 5	Warsaw Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual bills	KDT-1 KDT-1 Hno 1 + Hno 2 proposed TDP-1 Exh 3 line 4 * line 5	\$ 899,547 2,016,839 \$ 2,910,186	\$ 20,00 12,355 \$ 247,100	(g) \$ 50,00 420	(h) (h) 300,00 288	(i) \$ 300,00
1 2 3 4 5 6	Warsaw Rate Pesign Calculations Customer casts Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual bills Amount to Recever by Customer Class	KDT-1 KDT-1 line 1 + line 2 proposed TDP-1 Exh 3 line 4 * line 5 line 3 - line 6 elloc #12	\$ 893,547 2,016,639 \$ 2,910,186 \$ 354,500	\$ 20,00 12,355	(g) \$ 50,00 420	(h) (h) 300,00 288	(i) \$ 300,00
1 2 3 4 5 6 7	Warsaw Rate Design Calculations Customer casts Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual bills Amount to Recever by Customer Class Residual amt from commodity charges	KDT-1 KDT-1 Hno 1 + Hno 2 proposed TDP-1 Exh 3 line 4 * line 5	\$ 893,547 2,016,839 \$ 2,910,186 \$ 354,500 \$ \$ 2,555,686 100,00%	\$ 20,00 12,355 \$ 247,100 42,54%	(g) \$ 50,00 420 \$ 21,000	\$ 300,00 288 \$ 86,400	(i) \$ 300,00
1 2 3 4 5 6 7 8	Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual bills Amount to Receiver by Customer Class Residual amt from commodity charges Percent to receiver from each customer class	KDT-1 KDT-1 line 1 + line 2 proposed TDP-1 Exh 3 line 4 * line 5 line 3 - line 6 elloc #12	\$ 893,547 2,016,839 \$ 2,910,186 \$ 354,500 \$ \$ 2,555,686 100,00%	\$ 20,00 12,355 \$ 247,100	(g) \$ 50,00 420 \$ 21,000	\$ 300,00 288 \$ 56,400	\$ 200,00 \$ -

Summit Natural Gas of Missouri, Inc. MPSC Case No. GR-2014 - 0086 Rate Design with Customer Charge at Stated Values

Line										
No	Particulars	Reference	Costs	GS-res	GS-Res-On	GS-Comm	GS-Comm - Op	LGS	LVS	TS
	(a)	(b)	(c) (d)	(0)	(1)	(8)	(h)	(i)	(0)	(k)
	Rogersville									
	Rate Design Calculations									
1	Customer costs	KDT-1	\$ 4,046,684							
2	Nencuatemer costs	KDT-1	9,847,066							
3	Total Revenue Requirement	line 1 + line 2	\$ 13,893,750							
4	Monthly Customer Charge	proposod	7	\$ 20.00	\$ 20,00	\$ 40.00	\$ 40,00	\$ 50,00	\$ 300.00	\$ 300,00
5	Annual bilis	TDP-1 Exh 3	_	56,820	53.896	12,574	4,272	804	95	360
6	Amount to Recover by Customer Class	line 4 X line 5	\$ 3,065,160	\$ 1,136,400	5 1,077,920	\$ 502,960	\$ 170,680	\$ 40,200	\$ 28,800	S 108,000
7	Residual amt from commodity charges	lino 3 - line 6	\$10,828,590							
8	Percent to recover from each customer class	alloc #12	100,00%	20,06%	15,21%	13.70%	1,82%	6,91%	6.51%	35,79%
9	Amount to recover from each customer class	line 7 * line 8		\$ 2,171,975	\$ 1,646,550	\$ 1,483,395	\$ 197,519	\$ 748,091	\$ 704,969	\$ 3,875,992
10	Add customer related costs to optional classes	lino 6 - optional			1,077,920		170,880		н	
	T-4-1 t	line C e line 10	_	S 2 171 975	e 2724.470	\$ 1,483,395	e 200 400	\$ 748.091	\$ 704.969	6 2.675.000
11	Total costs to recover from commodity charges	line 9 + line 10	••		\$ 2,724,470	1,100,000				\$ 3,875,992
12	annual volumes in Mcf	TDP-1 Exh 3	1,755,522	293,657	226,008	216,625	29,047	123,300	122,403	744,482
13	commodity rate per Mcf	line 11 + line 12		7.396	\$ 12.055	\$ 6,848	\$ 12,688	\$ 6.067	\$ 5,759	\$ 5.208
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	1.00000000									
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Line No	Particulars	Reference	Costs	GS-res	GS-Ros-Op	GS-Comm	GS-Comm - Op	LGS	LVS	TS
		Reference (b)	Costs (c) (d)	GS-res	GS-Res-Op	GS-Comm	GS-Comm - Op	LGS (I)	LVS (i)	TS(k)
	Particulars (a)									
	Particulars									
	Particulars (a) Branson									
No E	Particulars (a) Branson Rate Design Calculations	(b)	(c) (d)							
No E	Particulars (a) Branson Rate Design Calculations Customer costs		(e) (d) S 1,248,397							
No E	Particulars (a) Branson Rate Design Calculations	(b) KDT-1	(c) (d)							
No 1 2	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomor costs	(b) KDT-1 KDT-1	(c) (d) \$ 1,248,397 6,842,628							
No 1 2	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomor costs Total Revenue Requirement	(b) KDT-1 KOT-1 Ilno 1 + Ilno 2	\$ 1,248,397 6,842,628 \$ 8,091,025	(0)	(1)	(9)	(b)	(1)	(i)	(k)
No 1 2	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Monthly Customer Charge	(b) KDT-1 KDT-1 line 1 + line 2 proposed	(c) (d) \$ 1,248,397 6,842,628	(0)	(1)	(9)	(h)	(1)		(k)
1 2 3 4	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomor costs Total Revenue Requirement	(b) KDT-1 KOT-1 Ilno 1 + Ilno 2	\$ 1,248,397 6,842,628 \$ 8,091,025	(e) 20.00 4,378	(1)	(9)	(b)	(1)	(i)	(k)
1 2 3 4 5	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Monthly Customer Charge Annual bills Amount to Recover by Customer Class	(b) KDT-1 KOT-1 Ine 1 + line 2 proposed TDP-1 Exh 3 line 4 X line 5	\$ 1,248,397 6,842,628 \$ 8,091,025	(e) 20.00 4,378	(f) 20:00 1,356	(9) \$ 40:00 2,076	(h)	(i) \$ 56,00 1.392	(i)	(k)
1 2 3 4 5	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Monthly Customer Charge Annual bills Amount to Receiver by Customer Class Residuel amt from commedity charges	KDT-1 KOT-1 Ino 1 + Ino 2 proposed TDP-1 Exh 3 Ino 4 X Ine 5 Ino 3 - Ino 6	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,360	20.000 4,378 5 87,560	(f) 20,000 1,356 \$ 27,120	\$ 40.00 2,076 \$ 83,040	(b) \$ 40,000 396 \$ 15,840	(i) \$ 50,000 1,392 \$ 69,600	(y) <u>s</u> 300,000 <u>s</u> -	\$ 300.00 84 \$ 25,200
1 2 3 4 5 6 7 8	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Noncustomer costs Annual bills Amount to Rocever by Customer Class Residual amt from commedity charges Parcent to recover from each customer class	KDT-1 KOT-1 Inc 1 + Inc 2 proposed TDP-1 Exh 3 Inc 4 X Inc 5 Inc 3 - Inc 6 alloc #12	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,300 7 \$ 7,782,665 100,00%	20,000 4,378 5 87,560 9,53%	(f) 20,000 1,356 5 27,120	\$ 40.00 2,076 \$ 83,040	(h) 38 40,000 396 5 15,840 0,63%	\$ 5000 1.392 \$ 69,600	(i)	\$ 300,00 84 \$ 25,200
1 2 3 4 5	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Monthly Customer Charge Annual bills Amount to Receiver by Customer Class Residuel amt from commedity charges	KDT-1 KOT-1 Ino 1 + Ino 2 proposed TDP-1 Exh 3 Ino 4 X Ine 5 Ino 3 - Ino 6	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,360	20,000 4,378 5 87,560 9,53%	(f) 20,000 1,356 \$ 27,120	\$ 40.00 2,076 \$ 83,040	(b) \$ 40,000 396 \$ 15,840	(i) \$ 50,000 1,392 \$ 69,600	(y) <u>s</u> 300,000 <u>s</u> -	\$ 300.00 84 \$ 25,200
1 2 3 4 5 6 7 8	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Noncustomer costs Annual bills Amount to Rocever by Customer Class Residual amt from commedity charges Parcent to recover from each customer class	KDT-1 KOT-1 Inc 1 + Inc 2 proposed TDP-1 Exh 3 Inc 4 X Inc 5 Inc 3 - Inc 6 alloc #12	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,300 7 \$ 7,782,665 100,00%	20,000 4,378 5 87,560 9,53%	(f) 20,000 1,356 5 27,120	\$ 40.00 2,076 \$ 83,040	(h) 38 40,000 396 5 15,840 0,63%	\$ 5000 1.392 \$ 69,600	(y) <u>s</u> 300,000 <u>s</u> -	\$ 300,00 84 \$ 25,200
1 2 3 4 5 6 7 8 9 10	Particulars (a) Branson Rate Dosign Calculations Customer costs Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual biblis Amount to Receiver by Customer Class Residual amt from commodity charges Percent to receiver from each customer class Amount to receiver from each customer class Add customer related costs to optional classes	KDT-1 KDT-1 Ino 1 + lino 2 proposed TDP-1 Exh 3 lino 4 × line 5 line 3 - line 6 alloc #12 line 7 * line 8 line 6 - optional	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,360 \$ 7,782,665 100,00% \$ 7,782,665	20,000 4,378 5 87,560 9,53% 741,789	\$ 20,00 1,356 \$ 27,120 1,31% \$ 102,128 \$ 27,120	\$ 40.00 2,076 \$ 83,040 11,49% \$ 894,436	(h) 396 \$ 15.840 0.63% \$ 49,179 \$ 15,840	\$ 50,00 1.392 \$ 69,600 24.49% \$ 1,905,913	(y) \$	\$ 300.00 84 \$ 25,200 52,54% \$ 4,089,221
1 2 3 4 5 6 7 8 9	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomor costs Total Revenue Requirement Monthly Customer Charge Annual bills Amount to Receiver by Customer Closs Residual amt from commedity charges Percent to receiver from each customer class Amount to receiver from each customer class	KDT-1 KOT-1 Ino 1 + lino 2 proposed TDP-1 Exh 3 lino 4 X lino 5 lino 3 - lino 6 alloc #12 lino 7 - lino 8	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,300 7 \$ 7,782,665 100,00%	20,000 4,378 5 87,560 9,53% 741,789	(f) 20,000 1,356 \$ 27,120 1,31% \$ 102,128	\$ 40.00 2,076 \$ 83,040	(h) 396 \$ 15.840 0.63% \$ 49,179 \$ 15,840	\$ 5000 1.392 \$ 69,600	(y) <u>s</u> 300,000 <u>s</u> -	\$ 300,00 84 \$ 25,200
1 2 3 4 5 6 7 8 9 10	Particulars (a) Branson Rate Dosign Calculations Customer costs Noncustomer costs Total Revenue Requirement Menthly Customer Charge Annual biblis Amount to Receiver by Customer Class Residual amt from commodity charges Percent to receiver from each customer class Amount to receiver from each customer class Add customer related costs to optional classes	KDT-1 KDT-1 Ino 1 + lino 2 proposed TDP-1 Exh 3 lino 4 × line 5 line 3 - line 6 alloc #12 line 7 * line 8 line 6 - optional	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 308,360 \$ 7,782,665 100,00% \$ 7,782,665	20,000 4,378 5 87,560 9,53% 741,789	\$ 20,00 1,356 \$ 27,120 1,31% \$ 102,128 \$ 27,120	\$ 40.00 2,076 \$ 83,040 11,49% \$ 894,436	(h) 396 \$ 15.840 0.63% \$ 49,179 \$ 15,840	\$ 50,00 1.392 \$ 69,600 24.49% \$ 1,905,913	(y) \$	\$ 300.00 84 \$ 25,200 52,54% \$ 4,089,221
1 2 3 4 5 6 7 8 9 10 11	Particulars (a) Branson Rate Design Calculations Customer costs Noncustomer costs Total Revenue Requirement Monthly Customer Charge Annual bills Amount to Receiver by Customer Class Residual ant from commodity charges Parcent to receiver from each customer class Amount to receiver from each customer class Add customer related costs to optional classes Total costs to receiver from commodity charges	KDT-1 KDT-1 Inc 1 + linc 2 proposed TDP-1 Exh 3 linc 4 x linc 5 linc 3 - linc 6 alloc #12 linc 7 * linc 8 linc 6 - optional linc 9 + linc 10	\$ 1,248,397 6,842,628 \$ 8,091,025 \$ 108,360 \$ 7,782,665 100,00% \$ 7,782,665	20,000 4,378 5 87,560 9,53% 5 741,789 22,127	\$ 20,000 1,356 \$ 27,120 1,31% \$ 102,128 \$ 27,120 \$ 129,248	\$ 40,00 2,076 \$ 83,040 11,48% \$ 894,436	(h) 386 396 \$ 15,840 0,83% \$ 49,179 \$ 15,840 \$ 65,019 2,519	\$ 50,000 1,392 \$ 69,600 24,49% \$ 1,905,913	(y) \$	\$ 300.00 \$4 \$ 25,200 \$ 4,089,221 \$ 4,089,221

Summit Natural Gas of Missouri, Inc. MPSC Case No. GR-2014-0086 Revenue Reduction Alternatives for Warsaw and Branson

Warsaw

			Revenue	Reduction R	esulting from	Warsaw rate o	ap at current L	OO Rates					
Line No	Customer Class	Warsa	ıw - exh 3	Curre	nt LOO	Billing D	eterminants	Reveni	ue Requiremen	t Reduction	Reve	enue from Capp	ed Rate
		cust	comm/Ccf	cust	comm/Ccf	customers	volume - Mcf	Customer	Commodity	Total	Customer	Commodity	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)
1	GS	\$ 20.00	\$ 1,5960	\$ 15.00	\$ 0.9500	12,355	68,276	\$ 61,775	\$ 441,060	\$ 502,835	\$ 185,325	\$ 648,622	\$ 833,947
2	CS	50.00	1,2815	30.00	1,0000	420	32,673	8,400	91,973	100,373	12,600	326,730	339,330
3	LVS	300.00	1.1804	100.00	1.0000	288	88,724	57,600	160,062	217,662	28,800	887,240	916,040
4	TS										-	_	-
5						13,063	189,673	\$ 127,775	\$ 693,094	\$ 820,869	\$ 226,725	\$ 1,862,592	\$ 2,089,317

									Brai	nson													
	F	ev	enue R	duc	tion Resul					Rates at \$0.2	000 more than F	ogers	ville co	mm	odity rate								
			Brans	on -	exh 3		~		roposed Der Ccf	Billing D	eterminants		Reven	ue F	Requirement	Red	uction		Net 1	Reve	nue After R	educ	tion
		cu	st	cor	nm/Ccf	cust		cor	nm/Ccf	customers	volume - Mcf	Cus	tomer	Ç	Commodity		Total	Cu	stomer	Cor	nmodity		Total
6	GS-res	\$	20.00	\$	3,3524	\$	20.00	\$	0.9396	4,378	22,127	\$	-	\$	533,877	\$	533,877	\$	87,560	\$	207,912	\$	295,472
7	GS-res-optional				3.4338				1.4055	1,356	3,764				76,346		76,346		-		52,902		52,902
8	GS-comm		40.00		1.8107		40.00		0.8848	2,076	49,397		-		457,383		457,383		83,040		437,053		520,093
9	GS-comm - optional				2,5811				1.4686	396	2,519				28,024		28,024		-		36,995		36,995
10	LGS		50.00		1,4103		50.00		0,8067	1,392	135,147		-		815,649		815,649		69,600		1,090,263		1,159,863
11	LVS		300.00		-		300.00		0.7759	-	-		-		-		-		-		-		-
12	TS - per Mcf		300.00		19.6378		300.00		7.2063	84	208,232		-		2,588,640		2,588,640		25,200		1,500,581		1,525,781
13										9,682	421,186	\$	-	\$	4,499,919		4,499,919	\$ 2	265,400	\$	3,325,706	\$	3,591,106

KENT D. TAYLOR PROFESSIONAL QUALIFICATIONS

INDUSTRY EXPERIENCE

OCTOBER 1984 to PRESENT

Chairman, KTM, an energy management and consulting business specializing in the economic interests of large natural gas and electricity users.

JANUARY 1984 to OCTOBER 1984

Director of Gas Acquisitions, KN Energy, Inc. Responsible for natural gas supply for company's integrated pipeline system, operating in seven states. Other responsibilities included all liquids marketing, negotiation of transportation and exchange agreements, pursuit of additional markets, and gas sales agreements for affiliate exploration company.

APRIL 1981 to JANUARY 1984

Director of Corporate Development, Celeron Corporation. Responsible for new business development, acquisitions and mergers, strategy development for existing pipelines (Louisiana Intrastate Gas and Mid Louisiana Gas), and gas marketing for Rocky Mountain area exploration efforts.

AUGUST 1980 to APRIL 1981

Senior Sales Representative, Colorado Interstate Gas Company (CIG). Primary responsibility was new market development. Also negotiated industrial gas sales agreements.

APRIL 1978 to JULY 1980

Senior Staff Analyst, Special Projects, CIG. Responsibilities included formulation of negotiating strategies, initiation of new business opportunities and economic analyses for investment decisions.

JANUARY 1975 to AUGUST 1978

Senior Rate Analyst, CIG. All facets of interstate pipeline rate making.

KENT D. TAYLOR PROFESSIONAL QUALIFICATIONS

EDUCATION

BSBA, University of Florida, Gainesville, Florida

1967

Major: Accounting

MS, The George Washington University, Washington D.C.

1972

Major: Public Administration

MBA, University of Colorado, Colorado Springs

1979

Major: Accounting/Finance

U.S. Naval Flight Training
Designated U.S. Naval Aviator July 1969

Defense Deserves Management Education Cour

Defense Resource Management Education Course, Navy Postgraduate School, Monterey, California 1988

PROFESSIONAL QUALIFICATIONS

Certified Public Accountant Captain, U.S. Naval Reserve (ret)

OTHER TESTIMONY

Regie Du Gaz Natural Du Quebec Florida Public Service Commission Colorado Public Utilities Commission Public Utilities Commission of Nevada Federal Energy Regulatory Commission Missouri Public Service Commission