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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DEPARTMENT

REBUTTAL TESTIMONY

OF

DAVID MURRAY

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

Staff Exhibit No. 119
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Jefferson City, Missouri
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** Denotes Highly Confidential Information **

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **DAVID MURRAY**

4 **SUMMIT NATURAL GAS OF MISSOURI, INC.**

5 **CASE NO. GR-2014-0086**

6 Q. Please state your name.

7 A. My name is David Murray.

8 Q. Are you the same David Murray who prepared the Rate-of-Return Section of
9 Staff's Cost of Service Report ("Staff Report") filed on May 30, 2014?

10 A. Yes, I am.

11 Q. What is the purpose of your rebuttal testimony?

12 A. The purpose of my rebuttal testimony is to respond to Summit Natural Gas of
13 Missouri, Inc. ("SNG") rate of return ("ROR") witness James M. Anderson's direct
14 testimony. Specifically, I will address Mr. Anderson's recommended capital structure, proxy
15 group, return on common equity and the cost of debt.

16 **EXECUTIVE SUMMARY**

17 Q. Can you provide a brief summary of Mr. Anderson's return on common
18 equity ("ROE") recommendation in this case and the ROE requested by the Company?

19 A. Yes. Mr. Anderson recommends an ROE of 15 percent. His ROE
20 recommendation is built off an average cost of equity estimate of 10.6 percent for the natural
21 gas distribution industry using the capital asset pricing model ("CAPM"), discounted cash
22 flow ("DCF") model and a total return method (see Table 1 on page 43 of Mr. Anderson's
23 direct testimony). Mr. Anderson then makes upward risk premium adjustments to each of his

1 models to account for risk factors he identifies as specific to SNG as compared to the natural
2 gas distribution industry. The average of the risk premium adjusted methods results in a cost
3 of equity estimate of 15.0 percent (see Table 6 on page 55 of Mr. Anderson's direct
4 testimony).

5 However, the Company decided not to request the 15 percent ROE Mr. Anderson
6 recommended. Company witness Michelle A. Moorman's testimony sponsored a requested
7 ROE of 12 percent.

8 Q. What capital structure did the Company recommend?

9 A. SNG's actual capital structure as of September 30, 2013.

10 Q. Please explain the main issues you have with Mr. Anderson's
11 recommendation in this case.

12 A. Mr. Anderson is providing expert testimony on what he believes SNG cost of
13 equity is, at least as it pertains to all of the assets except for those generally referred to as part
14 of the Lake of the Ozarks Division. However, in the unique situation presented in this case,
15 SNG is owned by one sophisticated private equity investor, The Infrastructure Investments
16 Fund ("IIF"), advised by JP Morgan, which likely performs its own discounted-cash-flow
17 analysis in order to determine the fair value of its investment in SNG through its equity-
18 ownership interest in SNG's parent company, Summit Utilities, Inc. ("Summit Utilities").
19 Because Summit Utilities is a privately-held investment and IIF is a private-equity fund, in
20 order to provide its investors information on the performance of the fund, IIF would
21 necessarily have to assess the fair value of its investment in Summit Utilities on a periodic
22 basis. Most likely this involves some type of discounted-cash-flow analysis, which would
23 require IIF to discount projected cash flows from its investment in Summit Utilities by its

1 required return on common equity, i.e. its cost of common equity. Instead of relying on
2 Mr. Anderson's subjective opinions on, first, a baseline-required return on equity for the
3 natural gas distribution industry, and then over ten company-specific risk premium
4 adjustments for SNG, IIF could provide the Commission direct evidence on the minimum
5 required return it used when making the decision on whether to acquire equity interest in the
6 systems already built in Missouri, the Gallatin district and the Rogersville district, and
7 whether to invest in building systems for the Warsaw and Branson districts.

8 It is possible that IIF's required returns for the systems may be higher than Staff's
9 recommendation, but it is also possible that IIF's required returns may be lower than the
10 Company's recommendation. The purposes of pursuing such information is not to support an
11 end-result, but to provide a more robust record for the Commission to use to make an
12 informed decision on a fair and reasonable allowed ROR for investors building gas utility
13 infrastructure in the State of Missouri.

14 Staff believes the most effective way to address the credibility of Mr. Anderson's
15 ROR recommendation would have been to review the investment and performance analysis
16 IIF performs periodically on its investment in Summit Utilities. However, because Staff was
17 unable to review this information at the time it wrote this rebuttal testimony, Staff's rebuttal
18 testimony will focus on the areas of Mr. Anderson's testimony that Staff does not believe
19 accurately portray how an investor would determine its required return to invest in SNG
20 through Summit Utilities.

21 Although Mr. Anderson's testimony briefly discusses the methodologies he used to
22 estimate a baseline cost of equity for the natural gas distribution industry, most of his
23 testimony is devoted to discussing eleven specific upward risk premium adjustments he

1 believes IIF requires beyond the baseline industry cost of equity. While Staff agrees that
2 SNG's cost of equity is higher than other Missouri gas utilities, such as Missouri Gas Energy
3 and Laclede Gas Company, Staff does not believe IIF would determine its required return by
4 applying eleven discrete risk premium adjustments that have no quantifiable basis. It appears
5 that Mr. Anderson wants the Commission to simply rely on his judgment on each of these
6 individual risk premium adjustments. Staff believes the more objective and reliable way to
7 estimate the risk premium adjustment to invest in SNG is to estimate SNG's creditworthiness
8 and then simply apply an aggregate risk premium adjustment to the proxy group's cost of
9 equity to account for SNG's higher risk. After assigning a credit rating consistent with
10 SNG's estimated creditworthiness, the risk premium adjustment is determined simply by
11 taking the difference in the average bond yields for SNG's assigned rating and the average
12 credit rating of the proxy group. This approach removes the bias and estimation error
13 introduced by making eleven individual risk premium adjustments that are not based on
14 market-determined cost differences.

15 Staff also has concerns with Mr. Anderson's simplified approaches to estimating the
16 cost of equity for the natural gas distribution industry. Mr. Anderson introduces an approach
17 that equates earned market returns for the gas industry since 2007 to the investors' required
18 returns, i.e. the cost of equity. While this approach may be appropriate for reporting
19 investment performance, it is not appropriate for estimating the cost of common equity. In
20 fact, because utility stocks have outperformed the S&P 500 the last few years because of the
21 decline in interest rates, if anything, the higher returns actually support a lower cost of equity
22 for the utility industry.

1 Staff also takes issue with Mr. Anderson's proposed capital structure. Mr. Anderson
2 does not mention in his testimony that SNG's current capital structure includes
3 approximately $90 million of capital for expansion into the Lake of the Ozarks. The
4 certificate of convenience and necessity ("CCN") granted to SNG for the Lake of the Ozarks
5 (Case No. GA-2012-0285) was premised on the costs associated with the Lake of the Ozarks
6 not being included in this rate case for SNG's other districts. Clearly, the capital structure
7 has been influenced by the capital needed for the Lake of the Ozarks expansion. In order to
8 ensure that SNG's more-established systems are not charged capital costs associated with
9 capital expended on the Lake of the Ozarks, Mr. Anderson should have imputed a capital
10 structure appropriate for the districts subject to this rate case.

11 **DISCOVERY ISSUES**

12 Q. Have you received responses to the data requests the Commission compelled
13 the Company to provide by July 2, 2014?

14 A. No. Staff had not received these responses as of July 11, 2014, the date on
15 which Staff was finalizing a draft of its testimony for filing. The Company communicated to
16 Staff by email on July 9, 2014 that it was working towards obtaining information from
17 Summit Utilities and IIF and it would provide responses as soon as the information is
18 available. As soon as Staff receives this information and has sufficient time to analyze it,
19 Staff will file supplemental rebuttal to provide the Commission with additional information
20 to test the reasonableness of both the Company's and Staff's estimate of IIF's required return
21 on common equity.

1 **CAPITAL STRUCTURE**

2 Q. What capital structure did Mr. Anderson recommend for purposes of
3 determining SNG's allowed rate of return?

4 A. Mr. Anderson recommended the use of SNG's actual capital structure as of
5 September 30, 2013. SNG's actual capital structure as of September 30, 2013, contained
6 56.96 percent common equity and 43.04 percent debt.[1]

7 Q. Did Mr. Anderson adjust his recommended capital structure to remove capital
8 raised for purposes of building the Lake of the Ozarks system?

9 A. No.

10 Q. Is it appropriate to include this capital in setting the allowed ROR for SNG's
11 other districts?

12 A. No. Staff and SNG agreed that costs associated with the Lake of the Ozarks
13 system would not be charged to customers of the other districts. Although admittedly this is
14 a somewhat subjective process that requires informed judgment, nevertheless, the parties
15 agreed to remove these costs. Consequently, Mr. Anderson or some other company witness
16 should have attempted to provide a pro forma estimate of what SNG's capital structure may
17 have been absent the capital invested in the Lake of the Ozarks project.

18 Q. Did Staff provide a pro forma estimate of SNG's capital structure without the
19 capital expended on the Lake of the Ozarks project?

20 A. Yes. Staff used information SNG provided in past applications it filed to
21 request authority to collateralize its Missouri natural gas distribution assets for purposes of
22 issuing debt financing. At the time SNG filed for authority to encumber its assets in Case
23 No. GO-2012-0102, its strategic plan did not include expansion into the Lake of the Ozarks.

[1] See Schedule TDP-3 attached to Tyson D. Porter's Direct Testimony.

1 SNG's request in Case No. GO-2012-0102 involved a recapitalization of the Company in
2 order to target a permanent capital structure that ultimately would consist of 60 percent debt
3 and 40 percent equity.

4 Q. Would SNG have been able to meet its targeted capital structure if it hadn't
5 expanded into the Lake of the Ozarks?

6 A. Potentially. SNG's targeted capital structure was based on its expectation
7 that its existing operations (all of the districts subject to this rate case) could generate a
8 sufficient level of earnings before interest, taxes, depreciation, and amortization ("EBITDA")
9 that would allow SNG to issue up to $88 million of 20-year debt at an estimated cost of
10 5.5 percent.

11 Q. Has SNG been able to generate enough EBITDA to allow it to issue an
12 amount of debt to meet its targeted capital structure?

13 A. No, but SNG's aggregate financial performance includes the Lake of the
14 Ozarks. SNG filed an application subsequent to Case No. GO-2012-0102 to request
15 authority to collateralize its assets for purposes of issuing up to $100 million of debt (Case
16 No. GF-2013-0261). SNG's highly-confidential response to Staff Data Request No. 0001
17 (attached as Schedule DM-1) in Case No. GF-2013-0261 indicated that ** ____________
18 ____
19 ____
20 ____ **

21 Q. Is it appropriate to consolidate the Lake of the Ozarks with the other
22 operations when estimating the long-term debt capacity of the legacy operations?

23 A. No.

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1 Q. In its direct testimony, did any Company witness attempt to disaggregate Lake
2 of the Ozarks financial information from SNG to estimate the amount of debt SNG's
3 EBITDA may have been able to support as of the test year?
4 A. No.
5 Q. Does Summit Utilities have any other natural gas distribution operations
6 similar to those in Missouri?
7 A. Yes. Summit Utilities also has a natural gas distribution subsidiary in
8 Colorado, Colorado Natural Gas Company ("CNG").
9 Q. Are CNG's established systems similar to the established systems in
10 Missouri?
11 A. Yes.
12 Q. Is CNG actively involved in expanding to other service areas?
13 A. No.
14 Q. Does Summit Utilities target a 60 percent debt and 40 percent equity capital
15 structure for CNG?
16 A. Yes.
17 Q. Have they been able to achieve the targeted capital structure for CNG?
18 A. Yes. As of December 31, 2012, CNG's capital structure had a long-term debt
19 to capitalization ratio of ** __________ ** As of December 31, 2013, CNG's capital
20 structure had a long-term debt to capitalization ratio of ** __________ **. The primary
21 reason for the decline in CNG's long-term debt ratio is that CNG's debt service payments
22 include a reduction in the principal balance in the amount of ** ________ **

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1 Q. Is there evidence that SNG expected its established districts to be able to
2 support the same percentage of debt as CNG's operations if not for the costs associated with
3 the Lake of the Ozarks?
4 A. Yes. The fact that the Company has not reduced its rate increase request for
5 its Gallatin and Rogersville districts supports the position that at least these districts can
6 support a capital structure with 60 percent debt. It is not as definitive for Branson because
7 SNG has not been able to achieve full penetration in this district. The Company is also
8 reducing its rate increase request for Warsaw because of its proposed strategy to charge
9 similar rates for the Warsaw and Lake of the Ozarks districts.
10 Q. When did CNG achieve its targeted capital structure?
11 A. Sometime during the 2012 calendar year. As of December 31, 2011, CNG
12 had a long-term debt to capitalization ratio of 46.31 percent.
13 Q. When did SNG file its application that was assigned Case No. GO-2012-
14 0102?
15 A. At the end of the 2011 calendar year. Consequently, it appears that if Summit
16 Utilities had continued with its plan of not expanding into the Lake of the Ozarks, it would
17 have recapitalized the current districts with 60 percent debt and 40 percent equity.
18 Q. What is the length of maturity of the debt CNG issued in 2012?
19 A. Approximately 20 years, which is the same maturity SNG had originally
20 proposed to issue in Missouri before it decided to expand into the Lake of the Ozarks.
21 Q. Do you think the cost of debt for Missouri would have been similar to what
22 was charged for Colorado?

1 A. Yes. It appears that Summit Utilities was pursuing 20-year debt issuances for
2 both its CNG and SNG subsidiaries at the same time. Considering the risk profiles of at least
3 the established gas distribution operations of SNG and CNG are similar, it seems reasonable
4 to conclude that if SNG had issued 20-year debt, it would have been at a similar cost.

5 Q. Does this mean you are changing your cost of debt recommendation?

6 A. No. Because Summit Utilities has not been forthcoming with information
7 about its affiliate, CNG, Staff believes it should continue to use the lower cost of 5.0 percent.
8 If SNG can provide sufficient evidence that shows it also expected to receive a 5.5 percent
9 interest rate for SNG's 20-year debt (assuming no expansion into the Lake of the Ozarks)
10 at the same time CNG issued its 20-year debt, Staff will change its cost of debt
11 recommendation to 5.5 percent.

12 Q. Are you aware of any additional evidence that supports the use of a capital
13 structure consisting of 60 percent debt and 40 percent equity?

14 A. Yes. SNG's response Staff Data Request No. 0177 (attached as Schedule
15 DM-2) in this case indicates that the Company believes a capital structure of 60 percent debt
16 and 40 percent equity is reasonable for established operations. SNG further indicates that
17 areas with ongoing growth initiatives may not be able to support a 60 percent debt ratio.

18 Q. Are there districts in this case in which the Company is reducing its rate
19 increase request voluntarily for strategic reasons?

20 A. Yes. The Company has indicated it wants to reduce its rate increase request
21 for its Branson and Warsaw districts. If this is the case, then it could be argued that these
22 districts' financial performance cannot support the same level of debt as the more established

1 Gallatin and Rogersville districts. However, Gallatin and Rogersville should not be assigned
2 more equity due to the financial underperformance of the other districts.

3 Q. Do you still recommend a 60 percent debt and 40 percent equity ratio for all
4 of the districts?

5 A. Yes.

6 **COST OF DEBT**

7 Q. What cost of debt does Mr. Anderson recommend?

8 A. Mr. Anderson recommends a cost of debt of 3.21 percent as compared to
9 Staff's recommended cost of debt of 5.00 percent.

10 Q. Why is Staff's recommended cost of debt higher than the Company's?

11 A. Because the Company inappropriately applied a temporary capital structure
12 and a temporary cost of debt to its more established districts. The $100 million of debt
13 SNG issued on January 28, 2013, is only for a term of three years. SNG decided to
14 issue shorter-term debt rather than its original plan of issuing 20-year debt because SNG
15 decided to move forward with construction in the Lake of the Ozarks. The 3-year term loan
16 was simply an extension of the previous bridge financing to complete the MGU/SMNG
17 merger (approximately $43 million) and also to obtain funds for construction in the Lake of
18 the Ozarks.

19 Q. Why does Staff believe the cost of debt should be higher than SNG's actual
20 cost of debt?

21 A. Because Staff is attempting to make pro forma adjustments to remove capital
22 associated with the Lake of the Ozarks, it is important to estimate the cost of debt for a
23 permanent capital structure that would have been achieved absent expansion at the Lake of

1 the Ozarks. Because such permanent debt capital would have had a longer term, around
2 20-years, and would have been based on a fixed rate, the cost of this debt would have been
3 higher than the cost for the actual shorter-term, variable rate loan.

4 **PROXY GROUP**

5 Q. Do you have any concerns with Mr. Anderson's proxy group?

6 A. Yes. Mr. Anderson blindly accepted Value Line's classification of the
7 companies in his proxy group as gas distribution companies without researching the financial
8 details of each company's segmented financial data. While both UGI Corporation and
9 NiSource, Inc., do have some regulated gas distribution operations, the gas distribution
10 operations do not constitute at least 50 percent of their operations. During the most recent
11 calendar year (2013), NiSource only derived 38.95 percent of its operating income from its
12 gas distribution operations. NiSource's gas pipeline operations (Columbia Pipeline
13 Operations) made up 38.60 percent of its total operating income. UGI's gas distribution
14 operations only contributed 23.64 percent to the total operating income, while its AmeriGas
15 Propane operations contributed 47.46 percent to its total operating income.[2]

16 **RETURN ON COMMON EQUITY**

17 Q. What is Mr. Anderson's estimated cost of common equity for SNG?

18 A. Mr. Anderson estimates a cost of common equity range of 12 percent to
19 17.6 percent for SNG. He recommends SNG be authorized a 15 percent ROE based on
20 this range.

21 Q. Did SNG use Mr. Anderson's 15 percent ROE recommendation for purposes
22 of its rate increase request?

[2] SNL Financial.

1 A. No. SNG's rate increase request is premised on an ROE of 12 percent.

2 Q. Why didn't SNG use Mr. Anderson's recommended ROE of 15 percent?

3 A. According to Company witness Michelle A. Moorman's testimony, SNG is
4 requesting an ROE of 12 percent because it "balances the interest of the ratepayers, our
5 investors and of the market for competitive fuels."[3]

6 Q. Is SNG's adjusted ROE request reasonable?

7 A. No. However, because the Company did not provide testimony supporting the
8 rationale for a 300-basis point adjustment as opposed to some other adjustment, my focus
9 will be on addressing the flaws, biases and subjectivity of Mr. Anderson's testimony. It is
10 also not clear if SNG believes the 300-basis point adjustment should be applied after the
11 Commission makes a determination of SNG's cost of common equity. For example, if the
12 Commission were to determine that the cost of equity for SNG was 10.8 percent, would SNG
13 consider an allowed ROE of 8.8 percent to be reasonable?

14 Q. What is Mr. Anderson's cost of equity estimate for his natural gas distribution
15 proxy group?

16 A. 10.6 percent, which is based on an average of three methodologies: CAPM;
17 DCF model; and the Total Return method.

18 Q. What is the implied risk premium adjustment based on Mr. Anderson's cost of
19 common equity estimate of 15.0 percent for SNG?

20 A. 4.4 percent.

21 Q. What individual risk premium adjustments did Mr. Anderson make to his
22 DCF and Total Return methods?

[3] Page 14, lines 16-18 of Michelle Moorman's Direct.

1 A. Mr. Anderson makes the following individual risk premium adjustments to his
2 DCF and Total Return methods:

3	Historic Low Rate of Return on Equity:	0.2%
4	Small Number of Customers:	0.5%
5	High Ratio of Residential to Commercial Customers:	0.2%
6	Lack of Geographical and Economic Customer Diversity:	0.2%
7	High Capital Investment in Utility Plant per Customer:	0.5%
8	Revenues Heavily Dependent on Gas Consumption:	1.0%
9	Infrequent Rate Cases:	0.2%
10	Not a Public Company:	1.0%
11	Employs Less Debt Leverage:	0.1%
12	Onerous Debt Terms:	0.5%
13	Lack of a Dividend:	0.7%
14	Total:	5.1%

15 Q. How does Mr. Anderson determine the appropriate adjustment for each risk
16 factor identified?
17 A. I am not sure other than his judgment. Apparently he believes his experience
18 qualifies him to make these fairly precise individual risk premium adjustments because he
19 does not provide any academic or practical support for any of the eleven adjustments.
20 Q. Should the Commission consider the risk factors Mr. Anderson discusses
21 extensively in his testimony?
22 A. Yes. Mr. Anderson's discussion of issues specific to SNG, most importantly
23 the large investment in building natural gas distribution infrastructure in areas that previously
24 did not have this option, are important to consider when setting the allowed ROE for SNG,
25 but not at the expense of customers from established districts.
26 Q. Did Staff consider the additional risk SNG incurs due to some of the risk
27 factors discussed by Mr. Anderson?
28 A. Yes. Although Staff did not discuss these risk factors on a line-item basis,
29 Staff still considered these risk factors by making an adjustment to its cost of equity estimate

1 for the natural gas distribution industry. Investors look at the potential volatility of the cash
2 flows from the operations and how much this volatility could increase with the use of debt.
3 Investors then determine how much compensation they will require for this additional
4 volatility, but would do so on an aggregate basis rather than on a line-item basis.

5 Q. Could Mr. Anderson simply have asked IIF how it quantifies the additional
6 risk premium it would require for investing in SNG as compared to an equity investment in a
7 publicly-traded natural gas distribution utility?

8 A. Yes, but he did not. Staff issued Data Request No. 0219 to inquire as to why
9 Mr. Anderson could not simply have done so. The question and answer follow:

> 10 Question: Please indicate Mr. Anderson's knowledge of IIF's
> 11 methodologies for estimating the cost of common equity. If
> 12 Mr. Anderson has no knowledge of these methods, please indicate
> 13 why Mr. Anderson hasn't simply asked IIF what methodologies it uses
> 14 to estimate the cost of common equity.

> 15 Response: Mr. Anderson assumes that, like most investors,
> 16 IIF estimates the cost of its equity based on the rate of return it
> 17 anticipates receiving as compared to similar investments with
> 18 comparable risks. This approach is outlined in Mr. Anderson's direct
> 19 testimony on pages 9, lines 19 to 21 and page 10, lines 1 to 6.

20 Staff believes IIF does make a risk premium adjustment to the baseline natural gas
21 distribution cost of equity, but not on a line-item basis as speculated by Mr. Anderson.

22 Q. Are there any areas of Mr. Anderson's qualitative testimony that you believe
23 lack merit?

24 A. Yes. Mr. Anderson believes a risk premium should be awarded for SNG
25 employing less debt leverage. This is a violation of the basic tenet of financial risk and
26 return. As a company employs more leverage, equity investors will demand a higher return
27 because there are higher fixed obligations before the equity investor will receive a return on
28 his/her investment. I have never seen an investment analyst recommend a risk premium

1 adjustment because a company has less financial risk than the proxy group. Mr. Anderson
2 was consistent with this basic tenet of risk and return when he testified in 2013 on ROR in
3 Colorado for SNG's sister company, CNG. In that case, Mr. Anderson recommended a
4 0.5 percent increase in the ROE because CNG had more financial risk than the proxy group.
5 Staff is not sure why Mr. Anderson believes both higher and lower leverage justify an
6 upward adjustment to the baseline ROE.

7 Mr. Anderson recommends an increase in SNG's ROE due to onerous debt terms.
8 While I agree with Mr. Anderson that SNG's current debt has fairly restrictive covenants,
9 such as requiring IIF to invest additional equity in Summit Utilities if SNG fails to meet
10 certain performance benchmarks, SNG entered into this debt agreement in large part to fund
11 its expansion into the Lake of the Ozarks. If SNG hadn't expanded into the Lake of the
12 Ozarks, then it is likely that SNG would have issued 20-year debt with similar terms as
13 incurred by its sister company, CNG. Customers of the districts subject to this rate case
14 should not be asked to pay a higher return due to the increased risk associated with
15 expanding into the Lake of the Ozarks.

16 I am also concerned about Mr. Anderson's argument that a higher return should be
17 allowed due an historic low rate of return on common equity. While I agree that financial
18 underperformance would be a concern to investors, it is important to understand why SNG
19 has underperformed financially. If the underperformance is associated with risks specific to
20 the districts that are the subject of this rate case, then some consideration to the allowed ROE
21 or the equity ratio may be appropriate. It is Staff's understanding that the districts that have
22 underperformed and will continue to underperform are the Branson and Warsaw districts,

1 which the Company is voluntarily recommending lower rates in this rate case to allow for
2 further penetration in those districts.

3 It is also debatable as to whether a risk premium should be allowed for less
4 commercial customers as compared to residential customers. Residential demand is often
5 considered less correlated to economic swings than commercial demand. During the
6 recession of 2008 and 2009, commercial customers either went out of business or cut back on
7 operations, which reduced the financial performance of many utilities, such as Kansas City
8 Power & Light Company. Even though the housing crisis also impacted utilities' loads, the
9 loss of a residential customer has a much smaller incremental impact if a utility company has
10 a large residential customer base.

11 Finally, Mr. Anderson's testimony on SNG's lack of geographical and economic
12 diversity ignores SNG's parent company, Summit Utilities. IIF's investment in Summit
13 Utilities allows for geographical diversity because Summit Utilities has established
14 operations in Colorado as well as Missouri and it is constructing natural gas operations in
15 Maine. IIF's required return for an equity investment in Summit Utilities is analogous to
16 determining an investor's required return using the CAPM. The CAPM only allows
17 additional return for risks investors can't diversify away through multiple investments. Staff
18 believes that IIF's investment in Summit Utilities does allow for geographical diversity
19 because Summit Utilities has three separate subsidiaries that span across the United States.

20 Q. Did Mr. Anderson serve in any other capacity for Summit Utilities that would
21 provide insight as to how he evaluated the risk of Summit Utilities for a purpose other than to
22 justify a rate increase as a ROR witness?

1 A. Yes. On page 6, lines 14 through 17 of his direct testimony, Mr. Anderson
2 indicated that he served on a special subcommittee of Summit Utilities' Board of Directors
3 in determining the fair market value of the minority shareholders' stock in a sale of that stock
4 to IIF.

5 Q. Did Staff request the analyses of this subcommittee?

6 A. Yes. Staff requested this information in Staff Data Request No. 182, but SNG
7 objected to this data request. Staff's Data Request specifically stated the following:

8 On page 6, line 14-17 of his direct testimony, Mr. James Anderson
9 indicates that he served as a member of a special subcommittee of
10 Summit's Board of Directors in determining the fair market value of
11 the minority shareholders' stock. Please provide all materials,
12 documents and analysis related to this special subcommittee's task of
13 determining a fair market value of Summit Utilities' minority stock.

14 At risk of stating the obvious, reviewing such information would have tested the credibility
15 of Mr. Anderson's ROR recommendation in this case. Mr. Anderson's role of estimating the
16 fair value of Summit Utilities' stock also required an assessment of the risks of Summit
17 Utilities' projected cash flows. The higher the risks of the cash flow, the higher discount rate
18 Mr. Anderson and the subcommittee would have used to estimate the equity value in Summit
19 Utilities. Not only could this analysis have allowed a test of the reasonableness of the level
20 of the cost of equity Mr. Anderson estimated as a ROR witness, but it could have also
21 allowed for a test of whether the subcommittee made line-item risk premium adjustments as
22 Mr. Anderson did in his testimony in this case.

23 Q. Why did the Company object to this data request?

24 A. They maintain that this information is not in SNG's possession, but it is in the
25 possession of its parent company, Summit Utilities.

1 Q. In SNG's last rate case, Case No. GR-2008-0060, did SNG respond to Staff's
2 data requests requesting parent company information regarding placement memoranda for
3 purposes of issuing capital?
4 A. Yes. In response to Staff Data Request No. 0083, SNG (Missouri Gas Utility
5 at the time) fully cooperated with Staff's request for placement memoranda, which were
6 issued by the parent company (CNG Holdings at the time).

7 **NATURAL GAS INDUSTRY COST OF EQUITY ESTIMATE**

8 Q. What issues do you have with Mr. Anderson's cost of equity estimate for the
9 natural gas distribution industry?
10 A. First, Mr. Anderson's constant-growth DCF analysis is inherently flawed in
11 that it assumes some of his proxy companies' growth rates can grow in perpetuity at a rate
12 that is in some situations over double the rate of growth that has been actually achieved by
13 the natural gas distribution industry. Second, his total return methodology is not logical
14 because the recent outperformance of utility stocks has primarily been due to the lowering of
15 risk premiums for utility investments. Finally, his CAPM analysis is based on an outdated
16 source from 2010, and it also has methodological flaws by assuming the risk premium should
17 be based on inflation-adjusted returns for both large stocks and small stocks.

18 **DCF Method**

19 Q. Were there any calculation errors in Mr. Anderson's DCF analysis?
20 A. Yes. Staff requested the supporting calculations for Table 3 on page 46 of
21 Mr. Anderson's testimony because the individual company cost of equity estimates did
22 not equal the growth rate plus the dividend yield. Apparently Mr. Anderson did not create
23 Table 3 in Microsoft Excel because the Company did not have an electronic file for Table 3.

1 Staff recreated Mr. Anderson's table to ensure that these errors did not flow through to
2 the final cost of equity estimate for the entire proxy group. Schedule DM-3 attached to this
3 testimony shows that after Staff made the corrections to the individual line items in
4 Mr. Anderson's Table 3, the average cost of equity indication for the proxy group was still
5 10.2 percent.

6 Q. What is inherently wrong with Mr. Anderson's DCF analysis?

7 A. Mr. Anderson's DCF analysis assumes that his proxy group's dividends can
8 grow at an annual compound growth rate of 6.4 percent into perpetuity. This is simply not
9 possible and is not an assumption investors make for purposes of evaluating potential returns
10 for natural gas utility stocks. While it is possible that the natural gas distribution industry
11 may be able to grow its earnings and dividends at a rate higher than economic growth in the
12 near term due to policy initiatives promoting the industry's replacement of gas distribution
13 infrastructure because of safety concerns, these replacement programs will not last into
14 perpetuity. It is reasonable to assume that the natural gas distribution industry's long-term
15 growth rate will not be any higher than long-term historical experience. This is especially
16 true considering these historical growth rates capture a period of economic growth that is not
17 expected to be matched going forward.

18 Q. What growth rate has the natural gas distribution industry realized in the last
19 40 years?

20 A. Approximately 4.4 percent based on calculations Staff provided in Schedule
21 9-6 attached to its direct testimony.

1 Q. If you added this growth rate to Mr. Anderson's dividend yield, what is the
2 resulting cost of equity estimate for the gas distribution industry?

3 A. 8.2 percent.

4 **Total Return Method**

5 Q. What concerns do you have with Mr. Anderson's Total Return methodology?

6 A. Mr. Anderson assumes that market returns achieved for the period December
7 2007 through October 2013 are driven by the fundamentals of the natural gas distribution
8 industry. However, this assumption ignores the impact the macroeconomic environment has
9 had on yield investments, such as bonds and dividend-yielding stocks. Similar to bond
10 prices, utility stock prices increase as interest rates decrease. The increase in utility stock
11 prices in such a situation is caused by investors lowering their required return to invest in
12 utility stocks. The higher the price the shareholder is willing to pay per share for a utility's
13 earnings, the less it costs the utility to raise equity capital.

14 Q. What is one of the most important things to consider when evaluating the
15 main drivers supporting utility stock valuations?

16 A. The primary attraction to utility stock investments is the dividend yield.
17 Utility investors do not invest in utilities for growth, which explains why utility companies
18 have historically paid out 60 percent to 70 percent of their earnings in dividends. Based on
19 the fundamental retention growth theory, which simply means a company's future earnings
20 and dividend growth will be a function of the amount of earnings a company retains and
21 reinvests, the growth rate of a utility stock earning an ROE of 10 percent cannot be much

1 higher than 3 percent to 4 percent.[4] This means that capital gain returns on stocks should
2 only be 30 percent to 40 percent of the total return.

3 Of course, the above proportion of returns assumes that interest rates remain fairly
4 constant over the period of your investment. However, this has not been the case since 2007.
5 The U.S. economy has been growing at an anemic rate since coming out of the 2008 to 2009
6 financial crisis. The current low-interest-rate environment is often explained by the dovish
7 monetary policies of the Federal Reserve, but it is also a function of low expectations for
8 economic growth. Because utility stocks are considered to be a close alternative to bond
9 investments, the prices of utility stocks increase as bond yields decrease because the
10 opportunity cost of not investing in utility stocks as opposed to bonds becomes quite high.
11 This is exactly why investors have bid the price of utility stocks up. Other than some
12 accelerated infrastructure replacement growth programs, there has not been a major shift in
13 the growth expectations for the gas distribution industry. If one understands that changes in
14 utility stock prices are primarily caused by changes in interest rates rather than changes in
15 underlying growth rates, then it should be obvious that the growth in utility stock prices since
16 2007 has been due to a decline in the cost of capital for utilities.

17 In a recent Ameren Missouri rate case, Staff discussed this very relationship. Over
18 the period from 1974 through 2010, the return from dividends made up 68 percent of the
19 total return received on utility stocks.[5] Consequently, considering the gas utilities in
20 Mr. Anderson's proxy group have an average dividend payout ratio of 67.89 percent for the
21 period 2008 through 2013, one would expect around 70 percent of the total return from his

[4] A 70% payout ratio results in a 30% retention of earnings, which is reinvested at a 10% ROE. 30% x 10% equals a growth in earnings of 3%. A 60% payout ratio results in a 40% retention of earnings, which is reinvested at a 10% ROE. 40% x 10% equals a growth in earnings of 4%.

[5] Hugh Wynne, Francois D. Broquin, and Saurabh Singh, "U.S. Utilities: Our Dividend Growth Model Identifies Utilities Poised to Pay More," May 20, 2011, Bernstein Research.

1 proxy group to be attributed to dividends. However, only 48.41 percent (76.87% - 39.35%/76.87%) of the total return for Mr. Anderson's proxy group (see Schedules DM-4 and DM-5) was due to the contribution of dividends, with the remaining 51.19 percent (39.35%/76.87%) of the total return attributed to capital gains.

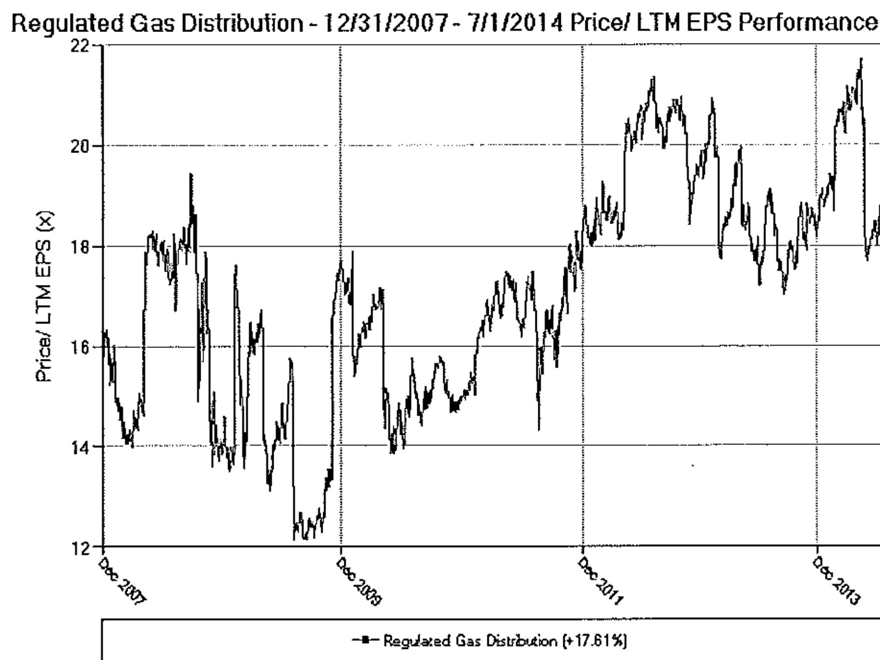
Q. Why didn't the historical relationship of dividend returns as a percentage of total returns hold up over the period analyzed by Mr. Anderson?

A. Because utility stock prices have been bid up due to the decline in the required return on common equity for natural gas utility stocks. This is the danger of using earned market returns as a proxy for required market returns. For example, when the stock markets hit their nadir on March 9, 2009, the earned market returns would have implied that cost of equity had gone down because earned returns had gone down, but it was the opposite. If earned returns go down due to investors becoming more risk averse, then this means required returns are higher rather than lower.

The run up in utility stock prices in recent years has caused some investors to be concerned that the price-to-earnings ratios for utilities are too high. Below is a graph from SNL Financial that shows what has happened to the price-to-earnings ratios for Mr. Anderson's proxy group for the period from December 31, 2007, through July 2, 2014. As can be seen, during the financial crisis, price-to-earnings ratios declined (higher cost of equity) during 2008 to 2009, but now they are consistently trading in the 18x to 20x range (lower cost of equity).

continued on next page

1



2

3 Q. If the historical relationship of utility stock investments achieving a majority
4 of their returns from dividends were to hold true going forward, how much capital
5 appreciation would one expect for utility stocks?

6 A. Assuming the dividend return is approximately 2/3 of the total return, maybe
7 2 percent based on an approximate dividend yield of 4 percent, for a total return of 6 percent.
8 While this may seem low, it is actually quite logical and reasonable considering the low
9 returns offered in the bond market, which is a close alternative to utility stocks.

10 **CAPM**

11 Q. What are you concerns with Mr. Anderson's CAPM analysis?

12 A. As I explained in the summary of my testimony, Mr. Anderson uses inflation-
13 adjusted, i.e., real returns, as his proxy for the equity risk premium. I have never seen a rate

1 of return expert estimate the market risk premium by simply using real returns achieved in
2 the market.

3 Market risk premiums using historical earned returns are usually measured by
4 subtracting a government bond return from the earned returns on some stock index.
5 Theoretically, the government bond yield should have two components, a real rate of return
6 and a return for expected inflation. If Mr. Anderson were to have added his risk-adjusted real
7 return on stocks to a current inflation rate rather than the 30-year U.S. Treasury bond, then
8 his methodology would not have been as flawed. When employing the CAPM, it is
9 important to use the same risk-free rate in both parts of the equation. The CAPM formula is
10 reproduced below to illustrate this relationship:

11 $$k = Rf + \beta (Rm - Rf)$$

12 Where: k is the expected return on equity for
13 a security;

14 Rf is the risk-free rate;

15 β is beta; and

16 Rm - Rf is the market risk premium.

17 Mr. Anderson's CAPM analysis assumes a higher risk-free rate for the first "Rf" variable
18 (the 30-year Treasury bond), but then uses a lower risk-free rate for the second "Rf" variable
19 (the rate of inflation), which causes an upward bias to his CAPM analysis.

20 Q. Does Mr. Anderson make adjustments to his CAPM analysis to attempt to
21 address company-specific risk issues for SNG?

22 A. Yes. Mr. Anderson proposes that the market risk premium be based solely on
23 the spread between a small company stock index and the inflation rate, but he then applies
24 Value Line betas to this risk premium. Value Line's betas are calculated based on a 5-year

1 historical period comparing the movement of the stock price of an entity to the New York
2 Stock Exchange ("NYSE") index. It is inappropriate to apply betas derived from a
3 measurement of the market risk premium of a broad index, to a risk premium measured by an
4 index different from that in which the beta was determined. If Mr. Anderson believes a small
5 size risk premium adjustment should be made to his CAPM analysis, he should have adjusted
6 his initial CAPM cost of equity estimate by a small size risk premium.

7 Q. Can you provide an example of how Mr. Anderson's approach misapplies
8 broad market determined betas to risk premiums derived from an index different from that
9 used for estimating the beta?

10 A. Yes. On page 50, line 14 of his direct testimony, Mr. Anderson provides the
11 beta for the micro-cap exchange-traded fund, IWC. The beta for this fund is measured
12 against the S&P 500 and was 1.10 per Mr. Anderson's source. This means that the expected
13 return should be about 10 percent higher than that of the S&P 500 according to the beta.
14 However, because Mr. Anderson applies the beta measured against the S&P 500 to an index
15 that is made up of small companies, which had a real return that was 2 percent higher than
16 the S&P 500, his expected return estimates are 43.33 percent higher than that of the S&P 500
17 (8.6% * 1.1 = 9.46%; 9.46%/6.6% - 1 = 43.33%).

18 Q. Mechanical concerns aside, what other problem do you see with
19 Mr. Anderson's adjustments to the CAPM to consider specific issues related to SNG?

20 A. Mr. Anderson assumes that SNG is a stand-alone company when comparing
21 its size to his proxy group. SNG is a subsidiary of Summit Utilities, which is the ultimate
22 issuer of equity for purposes of investment in the various subsidiaries. Because IIF is
23 invested in the consolidated operations, it achieves some diversification in its equity

1 investment and also achieves some economies of scale as well. Summit Utilities' book value
2 of equity was ** __________ ** as of December 31, 2013, as compared to SNG's book
3 value of equity of ** __________ ** as of the same date. Applying the 1.5 times book
4 value multiple from Northwest Natural Gas to Summit Utilities book value results in an
5 estimated market capitalization rate of ** __________ **. Applying the average 1.75 times
6 book value multiple from Mr. Anderson's proxy group results in an estimated market
7 capitalization rate of ** __________ **. These estimated market capitalizations are well
8 over twice what Mr. Anderson estimated for SNG. However, Summit Utilities is still
9 considered to be a very small company as compared to the broader markets.

10 Q. How would you adjust the CAPM results to incorporate risks specific to SNG
11 and its parent company, Summit Utilities?

12 A. As I did in Staff's Cost of Service Report. First, it is necessary to determine a
13 reasonable cost of equity estimate for publicly-traded natural gas distribution companies and
14 then add an aggregate risk premium based on the credit quality difference between SNG and
15 the proxy group. Staff estimated that SNG's credit rating is probably on the threshold of
16 investment grade to non-investment grade based on SNG's and Summit Utilities' risk profile.
17 The average spread between 'BBB' and 'BB' rated bonds as compared to 'A' rated bonds
18 was approximately 200 basis points. This method is much more straightforward and
19 objective than the method proposed by Mr. Anderson.

20 Q. Concerns about Mr. Anderson's beta estimates aside, what does
21 Mr. Anderson's beta estimate of 0.96 imply?

NP

1 A. It implies that SNG's required return is similar to that of the broader markets
2 because a broad market index, such as the S&P 500, should have a beta of 1.0 because the
3 covariance of the index to itself will result in unity.

4 Q. What cost of equity does Duff & Phelps (publisher of the 2014 Valuation
5 Handbook: *Guide to Cost of Capital*) estimate for the broader markets?

6 A. 9.0 percent based on a normalized risk-free rate of 4.0 percent and a risk
7 premium of 5.0 percent. Consequently, Mr. Anderson's cost of equity estimates are much
8 higher than those recommended for use by practitioners.

9 **SUMMARY AND CONCLUSIONS**

10 Q. Please summarize the conclusions of your Rebuttal Testimony.

11 A. My conclusions are:

12 1. Mr. Anderson's testimony is premised on providing the investor's
13 required return in SNG through Summit Utilities, but he has not even
14 attempted to communicate with Summit Utilities' sole equity investor,
15 IIF. This lack of direct communication should be considered by the
16 Commission in weighing the credibility of Mr. Anderson's testimony;

17 2. Mr. Anderson's capital structure recommendation should be dismissed
18 because it is a function of capital invested in the Lake of the Ozarks
19 division. SNG's established operations would have been capitalized
20 with 60 percent debt and 40 percent equity. To ensure no cross
21 subsidization, this should be the ratemaking capital structure;

22 3. The cost of debt should be based on a proxy estimate of what the cost
23 of debt would have been if SNG had established a permanent capital
24 structure for its existing operations;

25 4. Mr. Anderson's proxy group should be dismissed because it is not
26 limited to companies that are predominately natural gas distribution
27 utilities;

28 5. Mr. Anderson's cost of equity estimation methodologies and inputs are
29 not consistent with those generally used in the practice of financial
30 analysis and should therefore be dismissed;

1 6. Mr. Anderson's individual risk premium adjustments do not have any
2 objective or quantitative support. Any risk premium adjustment
3 allowed by the Commission should be based on an aggregate spread
4 based on estimated bond ratings.

5 Q. Does this conclude your Rebuttal Testimony?

6 A. Yes, it does.

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 DAVID MURRAY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

David Murray, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 29 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David Murray

Subscribed and sworn to before me this 11th day of July, 2014.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

Notary Public

SCHEDULE DM-1

HAS BEEN DEEMED

HIGHLY CONFIDENTIAL

IN ITS ENTIRETY

Missouri Public Service Commission

Respond Data Request

Data Request No.	0177
Company Name	Summit Natural Gas of Missouri, Inc.-Investor(Gas)
Case/Tracking No.	GR-2014-0086
Date Requested	5/2/2014
Issue	Rate of Return - Other Rate of Return Issues
Requested From	Martha Wankum
Requested By	Kevin Thompson
Brief Description	Anticipated Capital Structure Upon Refinancing on December 31, 2015
Description	Please indicate the anticipated debt ratio SNGMO expects to have when it refinances its January 28, 2013 credit agreement. Please provide the underlying support for this expectation. DR requested by: David Murray (david.murray@psc.mo.gov)
Response	Summit's desired debt ratio for established jurisdictional business operations is 60%/40%. However, for business jurisdictions wherein significant ongoing growth initiatives are occurring, a debt ratio at or below 50% is common given the fact that new construction is typically funded initially with equity-sourced funds followed by a targeted equal amount of debt once revenue streams are established. Therefore, depending upon the extent of ongoing growth construction at the point of debt refinancing in late 2015, a debt ratio in a range between 50% to 60% can be reasonably expected. Response Provided by: Rick H. Lawler, CFO
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2014-0086** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

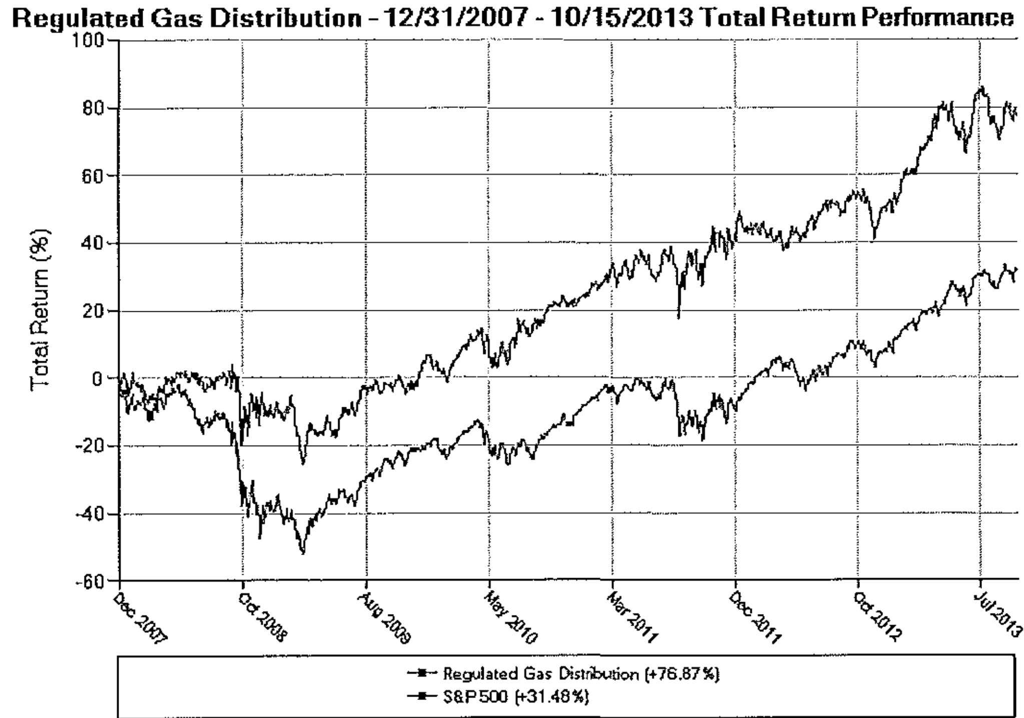
Security :	Public
Rationale :	NA

SUMMIT NATURAL GAS OF MISSOURI
CASE NO. GR-2014-0086

Recreation of Jim Anderson's Table 3

Company Name	(1) Dividend Yield	(2) Growth Rate	(3) DCF Cost of Equity
AGL Resources, Inc.	4.40%	9.00%	13.40%
Atmos Energy Corp.	3.60%	5.50%	9.10%
Laclede Group Inc.	4.00%	6.00%	10.00%
New Jersey Resources Corp.	3.90%	4.00%	7.90%
NiSource, Inc.	3.60%	10.50%	14.10%
Northwest Natural Gas Co.	4.70%	4.50%	9.20%
Piedmont Natural Gas Co.	4.00%	4.00%	8.00%
South Jersey Industries	3.40%	7.50%	10.90%
Southwest Gas Corp.	2.90%	8.00%	10.90%
UGI Corporation	3.10%	8.00%	11.10%
WGL Holdings, Inc.	4.10%	3.50%	7.60%
Average	**3.79%**	**6.41%**	**10.20%**

Anderson Proxy Group



Source: SNL Financial

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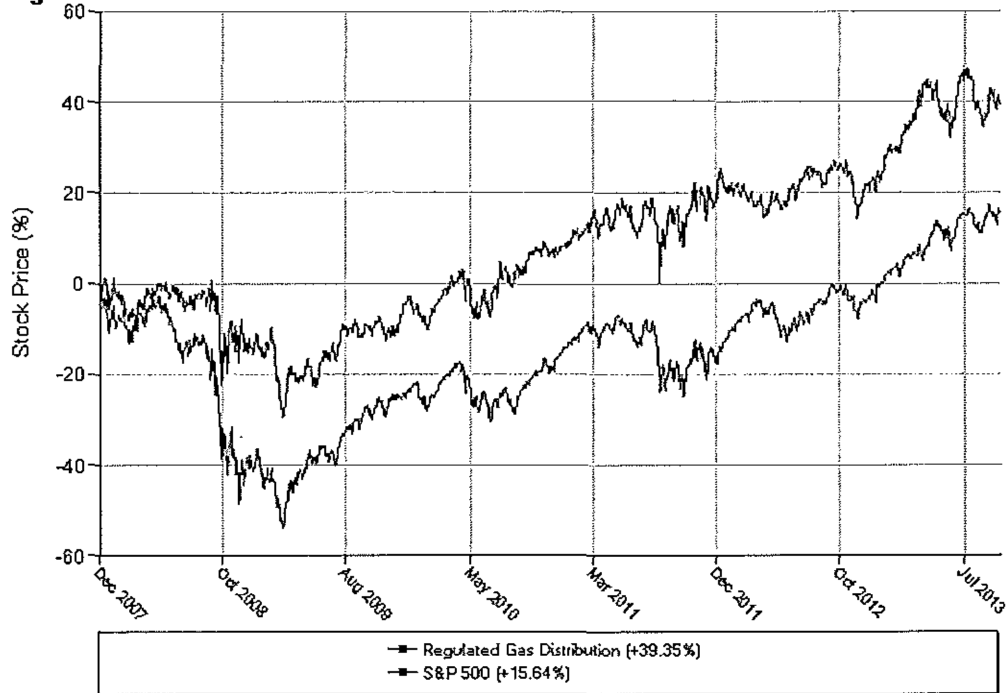
Anderson Proxy Group



Source: SNL Financial

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