Exhibit No.:
Issue: Revenue Requirement
Witness: Michael P. Gorman
Type of Exhibit: Rebuttal Testimony
Sponsoring Parties: Public Counsel and Missouri Industrial Energy Consumers
Case No.: GR-2017-0215 & GR-2017-0216
Date Testimony Prepared: October 17, 2017

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Request to Increase its Revenues for Gas Service	)	**Case No. GR-2017-0215** Tariff No. YG-2017-0195
In the Matter of Laclede Gas Company d/b/a Missouri Gas Energy's Request to Increase its Revenues for Gas Service	)	**Case No. GR-2017-0216** Tariff No. YG-2017-0196

Rebuttal Testimony and Schedules of

Michael P. Gorman

On behalf of

The Office of Public Counsel and
Missouri Industrial Energy Consumers

October 17, 2017

BRUBAKER & ASSOCIATES, INC.

Projects 10453 & 10453.1

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STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Michael P. Gorman

Michael P. Gorman, being first duly sworn, on his oath states:

1. My name is Michael P. Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Office of Public Counsel and the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. GR-2017-0215 and GR-2017-0216.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Michael P. Gorman

Subscribed and sworn to before me this 17th day of October, 2017.

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2021
Commission # 13706793

Notary Public

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Rebuttal Testimony of Michael P. Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a Managing Principal with Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q ARE YOU THE SAME MICHAEL P. GORMAN WHO FILED DIRECT TESTIMONY ON BEHALF OF OFFICE OF THE PUBLIC COUNSEL ("OPC") AND THE MISSOURI INDUSTRIAL ENERGY CONSUMERS ("MIEC")?

A Yes, I am.

Q WHAT IS THE SUBJECT MATTER OF YOUR REBUTTAL TESTIMONY?

A In my rebuttal testimony, I will respond to Laclede/MGE witnesses Glenn Buck and Pauline Ahern on capital structure, and respond to Ms. Ahern's return on equity recommendations.

I. SUMMARY

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS.

A My conclusions and recommendations are summarized as follows:

1. The Companies' filed capital structure including a common equity ratio of 57.2% is unreasonable for ratemaking purposes.

2. A capital structure with an excessive amount of common equity unnecessarily increases costs to retail customers relative to a more balanced capital structure that will maintain the utilities' credit standing and financial integrity, and preserve their access to capital. Laclede/MGE's proposed filed capital structure in this proceeding has substantially more common equity in their capital structure than needed to meet this objective.

3. The Companies' filed capital structure may overstate the capital structure at the true-up period because the Companies did not include an estimated amount of long-term debt expected to be issued to refinance short-term debt. This $170 million debt issue alone will reduce the Companies' filed capital structure common equity ratio from 57.2% down to 52.5%.

4. My proposed capital structure reflects the long-term debt issuance of $170 million and excludes the goodwill balance of $210 million, which results in a common equity ratio of 47.2% and an overall rate of return of 6.52%, as shown on my Schedule MPG-R-1.

5. Ms. Ahern's return on equity estimates do not support the Companies' requested return on equity in this proceeding of 10.35%. Ms. Ahern's methodologies overstate a fair return on equity for Laclede/MGE, and her proposal for 35 basis points of return on equity adders for flotation costs and business risks is without merit and should be denied. Reasonable adjustments to Ms. Ahern's market cost of equity estimates support my conclusion that a fair return on equity based on the current marketplace for Laclede/MGE is no higher than my recommended return on equity of 9.20%.

II. CAPITAL STRUCTURE

Q WHAT IS THE COMPANIES' PROPOSED CAPITAL STRUCTURE?

A Laclede/MGE's witnesses Ms. Pauline Ahern and Mr. Glenn Buck sponsor the Companies' proposed capital structure, which is shown below in Table 1. The proposed capital structure is based on the test year period ending on December 31, 2016.

TABLE 1

Laclede/MGE's Proposed Capital Structure

Description	Weight
Long-Term Debt	42.80%
Common Equity	57.20%
Total Regulatory Capital Structure	100.00%

Source: Schedule PMA-D1.

Q DO THE COMPANIES PROVIDE AN EXPLANATION OF THEIR PROPOSED CAPITAL STRUCTURE?

A Yes. Laclede/MGE witness Mr. Glenn Buck states at page 3 of his testimony that the Companies' proposed capital structure is based on end-of-year 2016 balances, and excludes short-term debt. He states that short-term debt was excluded because the average balance of short-term debt is less than the combined balance of construction work in progress, propane inventory, margin calls on hedging programs, and deferred gas costs to subject to Purchased Gas Adjustment ("PGA") carrying charges. He also comments that a portion of short-term debt during the test year is subject to a forward placement of $170 million long-term debt maturity that is scheduled to be funded by

September 15, 2017. Importantly, Mr. Buck provides no justification for treatment of $170 million of short-term debt set aside to fund a maturity of long-term debt in September of 2017.

A consultant for Laclede and MGE also provided testimony related to the Companies' proposed capital structure. Ms. Pauline Ahern provides three reasons why she believes the Companies' requested capital structure is appropriate: (1) the requested capital structure is an "actual" pro forma capital structure for Laclede; (2) MGE is a division of Laclede; and, (3) the requested capital structure is consistent with the capital structure ratios maintained by her Natural Gas Proxy Group. (Ahern Direct at 17).

Q DO YOU HAVE ANY OVERALL COMMENTS ABOUT THE COMPANIES' PROPOSED CAPITAL STRUCTURE?

A Yes. The Companies' capital structure included in their initial filing appears to have significantly more equity than the capital structure that one would reasonably expect to be filed at the true-up period. Mr. Buck's recognition that $170 million of short-term debt was excluded from the capital structure, because it would be refinanced with long-term debt in September of this year, results in a significant change to the capital structure compared to the Companies' filed capital structure.

Based on public documents, the $170 million of long-term debt was issued in September of this year. Reflecting this long-term debt issue alone will significantly reduce the common equity ratio in Laclede's capital structure from 57.2% down to 52.5% as shown in my Schedule MPG-R-2. However, even that capital structure appears to have an unreasonable common equity component for ratemaking purposes. I state this because a significant amount of common equity in Laclede is

used to support its investment in a goodwill asset. Excluding the goodwill asset, Laclede's capital supporting its investment in utility plant and equipment has a structure as shown in Table 2 below.

TABLE 2

Capital Structure
(Remove Goodwill Capital)

Description	Weight
Long-Term Debt	52.8%
Adjusted Common Equity	47.2%
Total Capital	100.0%

Source: Schedule MPG-R-1.

Q DOES LACLEDE/MGE'S PROPOSED CAPITAL STRUCTURE IN THIS CASE REASONABLY REFLECT ITS ACTUAL CAPITAL STRUCTURE OVER RECENT YEARS?

A As shown on my Schedule MPG-R-3, page 1, Laclede/MGE's actual capital structure over the last five years has been consistently around 50%, including short-term debt.

Further, excluding the common equity supporting the $210 million of goodwill on Laclede's balance sheet, Laclede's actual common equity ratio supporting investments in utility plant and equipment is no higher than 45% including short-term debt, and 52% excluding short-term debt.

Q IS LACLEDE/MGE'S CAPITAL STRUCTURE COMPARABLE TO THEIR PARENT COMPANY, SPIRE?

A No. Spire's balance sheet actually represents a more leveraged company, particularly when recognition is made for the amount of goodwill recorded on its balance sheet. As shown on my attached Schedule MPG-R-2, page 2, Spire's common equity ratio over the last five years has been approximately 42%. However, when the balance sheet is adjusted to remove the common equity supporting the goodwill asset, Spire's actual common equity ratio supporting its investment in its utility subsidiaries has been lower than 22%, including short-term debt and 26% excluding short-term debt.

Q HAVE CREDIT RATING AGENCIES COMMENTED ON THE SIGNIFICANT DEBT LEVERAGE AT SPIRE AND THE RESULTING IMPACT ON ITS GAS UTILITY AFFILIATES' CREDIT STANDING?

A Yes. In a December 2016 report on Spire, Moody's made the following comments on the credit rating outlook of Laclede's parent company:

> **Outlook**
>
> Spire's stable rating outlook reflects our expectation that Spire's overall operating performance going forward will remain at levels consistent with its current rating, such that its ratio of CFO pre-W/C to debt will be in the mid-teens range. The stable outlook also reflects our view that the credit supportive regulatory jurisdictions of Missouri and Alabama will continue to maintain the credit quality of its larger regulated utility subsidiaries (Laclede and Alagasco) and that Spire will not undertake aggressive shareholder friendly debt-financed activities that will be a detriment to the risk profile of its utilities.[1]

I also note that in Standard and Poor's ("S&P") most recent credit report on Laclede Gas Company, it awarded Laclede an anchor rating, or a stand-alone credit

[1] *Moody's Investors Service*: "Rating Action: Moody's assigns a Prime-2 short-term rating to Spire Inc.'s commercial paper program," December 22, 2016.

rating, of “A”, which is a full notch higher than the actual published bond rating of “A-”. In describing how Laclede’s bond rating is impacted by its parent company, S&P stated the following:

> **Group Influence**
>
> Laclede Gas Co. is subject to our group rating methodology criteria. We assess Laclede Gas Co. as a core subsidiary of parent Spire Inc. because we think that Laclede Gas Co. is highly unlikely to be sold, has a strong long-term commitment from senior management, is successful at what it does, and contributes meaningfully to the group. Because there are no meaningful insulation measures in place that protect Laclede Gas Co. from its parent, the issuer credit rating on the company is 'A-', in line with the group credit profile of Laclede of 'a-'.[2]

Q WHY IS IT APPROPRIATE TO ASSUME THAT GOODWILL IS FINANCED WITH ONLY COMMON EQUITY IN ASSESSING THE BALANCE SHEET STRENGTH OF LACLEDE/MGE AND SPIRE?

A Goodwill is a paper asset that is recorded at the time of acquisitions. Essentially, it represents the amount of acquisition premium that Spire or Laclede/MGE have paid for other utilities above their prevailing book value. It essentially represents a transaction between Spire or Laclede/MGE’s investors, and the investors of the entity which is being acquired. This acquisition premium recorded as goodwill does not represent capital received from investors and used to invest in utility plant and equipment. Rather, it represents acquisition premiums for transactions between utility shareholders.

From a credit rating perspective, a goodwill asset has no economic value. A goodwill asset, unlike infrastructure investments that are included in a utility’s rate base, produces no cash flow. Therefore, the existence of a goodwill asset cannot be

[2] *Standard & Poor’s RatingsDirect*: “Summary: Laclede Gas Co.,” July 19, 2017 at 5, emphasis added.

funded by debt because it cannot produce cash flows adequate to meet the debt service obligations on a debt security. Therefore, these premium payments that represent transactions between shareholders, can only prudently and reasonably be financed by utility common equity. It would be imprudent to finance a goodwill asset with debt, because the goodwill asset would default on the obligations to meet the debt service obligation of a debt, and would cause significant distress on the utility's credit standing, and ability to operate as a financially sound going concern.

Additionally, the goodwill asset is subject to annual impairment tests. If the impairment test indicates the book value of the goodwill asset overstates its perceived value, the utility must take an impairment charge down to the value indicated by the test. This charge, or writedown, directly impacts other comprehensive income, and common equity capital. Debt is not impacted by an impairment charge.

Q DO YOU HAVE ANY COMMENTS CONCERNING MS. AHERN'S SUPPORT FOR THE COMPANIES' PROPOSED CAPITAL STRUCTURE?

A Yes. Ms. Ahern's comments that the Companies' proposed capital structure reflects an actual pro forma capital structure does not support the reasonableness of the Companies' actual capital structure for ratemaking purposes. The Companies' capital structure is managed at the discretion of the Companies' management. As such, the Companies' actual capital structure must be shown to be reasonable for ratemaking purposes. I suggest that a reasonable capital structure is one that places no more cost burden on customers than necessary to support the credit standing and financial integrity of the utility. As outlined below, the Companies' proposed capital structure is far more expensive than necessary to achieve this objective.

Further, Ms. Ahern's comments that the proposed capital structure is consistent with the capital structure ratios maintained by her natural gas proxy group are without merit. Indeed, the Companies' proposed capital structure contains far more common equity than typically allowed by a regulatory commission for establishing an overall rate of return for a regulated natural gas utility company. Indeed, while credit reports indicate electric utilities are somewhat more risky than natural gas, the Companies' proposed capital structure contains far more common equity than generally used to set an overall rate of return for a regulated electric or gas utility company. In other words, a less risky company needs a thinner equity level to support utility operating, not the other way around. All of this clearly shows that the Companies' proposed capital structure contains an excessive amount of common equity, and therefore is not reasonable for ratemaking purposes.

Further, concerning Ms. Ahern's comments about capital structures for the proxy group companies, I would note that when short-term debt is included, as shown on my Schedule MPG-3 (Column 3) to my direct testimony, the proxy group companies have an average capital structures of approximately 51% debt and 49% equity. Further, as shown on my Schedule MPG-R-4 to this testimony, the regulatory approved capital structure for the operating utility subsidiaries of the publically traded proxy group companies predominantly have awarded common equity ratios in the range of 44% to 55% common equity, with an approximate median of 52%.

Q WHY IS A CAPITAL STRUCTURE THAT IS OVERLY WEIGHTED WITH COMMON EQUITY UNREASONABLE FOR SETTING RATES?

A A capital structure too heavily weighted with common equity unnecessarily increases Laclede/MGE's claimed revenue deficiency because common equity is the most

expensive form of capital and is subject to income tax expense. For example, if Laclede/MGE's authorized return on equity is set at 9.0%, the revenue requirement cost to customers would be approximately 14.4%, which includes the 9.0% after-tax return and the related income expense of 5.4%, which is based on the tax conversion factor of approximately 1.6x. (9.0% times 1.6x less 9.0%). In contrast, the cost of debt capital is not subject to an income tax expense. Laclede/MGE's proposed embedded cost of debt is approximately 4.159%. Common equity is more than twice as expensive on a revenue requirement basis than debt capital.

A reasonable mix of debt and equity is necessary in order to balance Laclede/MGE's financial risk, support an investment grade credit rating, and permit Laclede/MGE access to capital under reasonable terms and prices. However, a capital structure too heavily weighted with common equity will unnecessarily increase its cost of capital and revenue requirement for ratepayers.

II.A. Capital Structure Reasonableness

Q IS THE COMPANIES' PROPOSED CAPITAL STRUCTURE REASONABLE FOR RATEMAKING PURPOSES?

A No. Laclede/MGE's proposed capital structure is not consistent with industry norms which have supported very strong credit standing and access to capital for the industry as a whole. Further, their proposed capital structure contains more common equity than necessary to support their stand-alone bond rating. As such, the capital structure is more expensive than necessary to maintain Laclede/MGE's credit rating and access to capital.

Q PLEASE DESCRIBE WHY YOU BELIEVE LACLEDE/MGE'S PROPOSED CAPITAL STRUCTURE IS INCONSISTENT WITH NORMAL PRACTICES IN SETTING AND APPROVING CAPITAL STRUCTURES FOR RATEMAKING PURPOSES FOR REGULATED UTILITY COMPANIES?

A The reported common equity ratios of the capital structures used to set rates of return for regulated natural gas companies by regulatory commissions are summarized in Table 3 below. As shown in this table, the gas utility industry average and median common equity ratios have generally fallen around 51% over the period 2010-2017. The industry medians generally support common equity ratios of around 49.90% up to 52.45%. This trend in the industry illustrates just how excessive Laclede/MGE's proposed common equity ratio is in this proceeding.

TABLE 3

Trends in State Authorized Common Equity Ratios (Industry)

Line	Year	Natural Gas Average	Natural Gas Median	Electric Average	Electric Median
	(1)	(2)	(3)	(4)	(5)
1	2010	49.25%	49.90%	49.49%	49.79%
2	2011	52.49%	52.45%	49.09%	49.10%
3	2012	51.13%	51.47%	51.45%	52.00%
4	2013	51.16%	50.43%	50.12%	51.03%
5	2014	51.90%	51.99%	50.28%	50.00%
6	2015	49.79%	50.33%	50.24%	50.48%
7	2016	51.85%	51.35%	49.70%	49.99%
8	2017	50.06%	50.50%	49.71%	49.49%
9	Average	50.95%	51.05%	50.01%	50.23%
10	Min	49.25%	49.90%	49.09%	49.10%
11	Max	52.49%	52.45%	51.45%	52.00%
12	Midpoint	50.87%	51.17%	50.27%	50.55%
13	Laclede/MGE Proposed		57.2%		
14	Gorman Proposed		47.2%		

Source and Notes:
SNL, downloaded 8/29/2017
Data through June 2017
Excludes Arkansas, Florida, Indiana and Michigan

As shown in Table 3 above, the Companies' proposed capital structure at 57.2% common equity contains far more common equity than that of other utility companies for ratemaking purposes. Importantly, as I discussed in my direct testimony, the utility industry generally is able to access large amounts of capital to support its capital investment programs, and its bond rating has improved. Therefore, this comparison of Laclede/MGE's proposed capital structure to those of the utility

industry strongly supports my conclusion that the Companies' capital structure contains an unreasonably high amount of common equity.

Q DOES LACLEDE/MGE'S PROPOSED CAPITAL STRUCTURE SUPPORT CREDIT METRICS NEEDED TO MAINTAIN THEIR BOND RATING?

A No. Again, their capital structure contains more common equity than needed to support their bond rating. This capital structure was based on the 2016 actual capital structure. In 2016, Laclede/MGE's actual capital structure, including all investor capital, and reflecting off-balance sheet debt obligations indicates that Laclede/MGE's adjusted debt ratio at my proposed capital structure is 54.2% and reasonably consistent with industry median adjusted debt ratio range for other utilities with Laclede/MGE's current A- bond rating of 52.2%.

TABLE 4

Operating Subsidiaries
Regulated Utilities
(Industry Medians)

Adjusted Debt Ratio

		% Distribution		
Rating	**Median**	**< 50**	**50 to 55**	**> 55**
AA-	42.9%	100%	0%	0%
A	49.0%	67%	33%	0%
A-	**52.2%**	**37%**	**39%**	**24%**
BBB+	52.4%	26%	48%	26%
BBB	53.4%	25%	38%	38%
BBB-	54.4%	10%	50%	40%
At Laclede/MGE Proposed			44.5%	

Source:
S&P Capital IQ, downloaded September 28, 2017.

However, at the Companies' proposed common equity ratio of 57% implies an imputed adjusted debt ratio in this case of around 44.5%, as shown on Schedule MPG-R-5, page 2. This adjusted debt ratio is substantially less than adjusted debt ratios that have proven to be supportive of strong investment grade credit ratings for regulated utility companies as shown in Table 4 above. This is clear evidence that the Companies' proposed capital structure has far too much common equity, and not enough debt, to support their bond rating. As such, the capital structure is far more expensive than necessary to support Laclede/MGE's credit rating and access to capital.

Q ARE YOU PROPOSING TO ADJUST LACLEDE/MGE'S PROPOSED CAPITAL STRUCTURES?

A Yes. I recommend the Commission reject Laclede/MGE's proposed capital structure because it includes an excessive amount of common equity capital. I recommend a projection of Laclede/MGE's capital structure at the true-up date reflecting a $170 million bond issue used to retire short-term debt, and also to adjust the common equity balance to remove the capital supporting the goodwill asset. The resulting capital structure as shown in Table 5 below, results in a common equity ratio of 47.2% and is adequate to support their current investment grade bond rating, but at a much lower cost than the capital structure proposed by Laclede/MGE. Also, this is the capital structure mix used to fund utility rate base investments, excluding short-term debt. Therefore, it most accurately reflects Laclede/MGE's cost of service for retail Missouri operations.

My recommended capital structure to use for ratemaking purposes for Laclede/MGE is shown below in Table 5.

TABLE 5

Gorman's Proposed Capital Structure
(December 31, 2016)

Description	Weight
Long-Term Debt	52.8%
Common Equity	47.2%
Total Regulatory Capital Structure	100.0%

Source: Schedule MPG-R-1.

Q IF THE COMMISSION ADOPTS YOUR PROPOSED CAPITAL STRUCTURE ADJUSTMENT, WILL THAT PREVENT LACLEDE/MGE FROM EARNING THEIR AUTHORIZED RETURN ON EQUITY?

A No, not if Laclede/MGE respond to the Commission's findings on a reasonable capital structure for rate-setting purposes, and adjusts their projected test year capital structure to conform to what the Commission finds to be appropriate. This rate-setting discipline in a regulated industry is comparable to what deregulated companies face if their cost of capital cannot be recovered at prevailing market prices. In deregulated markets, a company must adjust its actual cost of service in order to achieve its profit outlooks while taking market prices.

Q PLEASE SUMMARIZE WHY YOU BELIEVE YOUR PROPOSED ADJUSTMENT TO THE COMPANIES' CAPITAL STRUCTURE IS REASONABLE FOR RATEMAKING PURPOSES?

A I believe my recommended capital structure is reasonable for ratemaking purposes for the following reasons:

1. The Companies have discretion to adjust their capital structure mix based on what the Commission finds to be appropriate for rate-setting in this proceeding. Competitive companies often have to modify their cost of service to align with their profitability goals while accepting market prices. Hence, reasonable prices should be set based on reasonable and efficient cost of service, and the Companies should modify their actual capital structure cost to align with what is reasonable for ratemaking purposes.

2. The capital structure I recommend is adequate to maintain the Companies' investment grade credit metrics. Customers should not pay higher capital costs in order to support financial obligations of the parent company that are unrelated to its cost of providing regulated utility service in the state of Missouri.

3. The Companies' proposed capital structure should be rejected because it creates an excessive cost burden on customers, without a demonstration of any benefit to customers. My capital structure mix supports a bond rating that is reasonably in line with the industry median bond ratings. Industry median bond ratings are supported with more reasonable capital structures with a common equity balance approaching 50% of total capital.

III. RESPONSE TO WITNESS PAULINE AHERN

Q WHAT RETURN ON COMMON EQUITY IS LACLEDE/MGE PROPOSING FOR THIS PROCEEDING?

A Ms. Ahern estimates a return on equity of 10.00% based on her market models – DCF, risk premium, and CAPM. However, she increases her recommended return on equity to 10.35%[3] for Laclede/MGE, by adding a business risk adjustment of 20 basis points, and a flotation cost adder of 16 basis points to her 10.00% proxy group return.[4]

Q IS MS. AHERN'S ESTIMATED RETURN ON EQUITY REASONABLE?

A No. Ms. Ahern's estimated market return of 10.0% for her proxy group companies is significantly overstated based on her use of overstated risk premium estimates for

[3]Recommended Return: 10.0% + 0.20% + 0.16% = 10.36%, rounded to 10.35%.
[4]Ahern Direct Testimony at 5.

both her risk premium and CAPM models. Further, her proposed return on equity adders totaling 36 basis points are unjustified and should be rejected.

Q PLEASE DESCRIBE MS. AHERN'S METHODOLOGY SUPPORTING HER RETURN ON COMMON EQUITY.

A Ms. Ahern estimates a return on equity for Laclede/MGE based on the DCF model, a Risk Premium ("RP") model that she calls the Predictive Risk Premium Model™ ("PRPM"), a bond yield plus risk premium model, as well as the traditional and empirical forms of the CAPM. Ms. Ahern then attempts to corroborate her results by applying the same models to a proxy group of non-price regulated companies.

Q PLEASE SUMMARIZE MS. AHERN'S RESULTS.

A Ms. Ahern's results are summarized in Table 6 below.

TABLE 6

Summary of Ms. Ahern's Return on Equity Estimates

Model	Ahern Estimate (1)	Corrected Estimate (2)
I. Market Models:		
DCF	8.68%	8.68%
RP	10.57%	8.80%
CAPM	9.11%	8.80%
Non-Price Regulated Companies	10.45%	Reject
Indicated Return on Equity	10.00%	8.80%
II. Adders:		
Business Risk Adjustment	0.20%	Reject
Flotation Cost Adjustment	0.16%	Reject
Total Adders	0.36%	
III. Recommended Return on Equity	10.35%	8.80%

Sources:
Ahern Direct Testimony at 5.

For the reasons outlined below, reasonable adjustments to Ms. Ahern's return on equity estimates reduce her findings from 10.0%, excluding the unnecessary adders, down to approximately 8.80%. My recommended return of 9.20% is reasonable and conservative in comparison to this corrected study by Ms. Ahern.

III.A. Ahern Proposed Size Adjustment Adder

Q PLEASE DESCRIBE THE RETURN ON EQUITY ADDER PROPOSED BY MS. AHERN FOR INCREASING HER RETURN ESTIMATE.

A Ms. Ahern proposes to add a return on equity premium of 20 basis points to her proxy group return to reflect Laclede/MGE's alleged greater risk relative to that of her proxy group companies, due to the difference in its hypothetical market capitalization.[5]

Q HOW DID MS. AHERN ESTIMATE THIS 20 BASIS POINT ADDER?

A Ms. Ahern approximates a market value for Laclede/MGE, in comparison to the actual market value capitalization weights for her proxy group. Based on this hypothetical market capitalization, Ms. Ahern estimates that the proxy group market capitalization is about 1.3 times larger than the market capitalization Ms. Ahern estimates for Laclede/MGE.

She then compares the actual market weights of the proxy group and her estimated market capitalization for Laclede/MGE to a market capitalization size index published by Duff & Phelps.

She relies on Duff & Phelps estimated CAPM return difference for companies that fall within market capitalization size deciles. Ms. Ahern estimates that the proxy group market capitalization size puts them in the approximate 4^{th} to 5^{th} decile of returns as estimated by Duff & Phelps. She states that her approximation for Laclede/MGE's market capitalization weight puts it in the 5^{th} to 6^{th} decile size return category. The difference in size premiums between the 4^{th}-5^{th} decile and the 5^{th}-6^{th} deciles requires an increased return on equity of around 0.32%. However, using her

[5] Ahern Direct Testimony at 50-52.

judgment, Ms. Ahern recommends a return on equity premium for Laclede/MGE of 20 basis points. (Ahern Direct at 52).

Q IS MS. AHERN'S PROPOSED 20 BASIS POINT RETURN ON EQUITY PREMIUM FOR LACLEDE/MGE SIZE REASONABLE?

A No. There are several fundamental errors and flaws in Ms. Ahern's quantitative estimate and logic. First and foremost, Laclede/MGE is not a publicly traded company. For this reason, Ms. Ahern's hypothetical market capitalization for the Companies is purely conjecture. Her approximation simply is not meaningful and cannot be used to make an accurate measurement of a size premium if one is so justified, which it is not.

Secondly, and probably most significantly, Laclede/MGE enters into a service agreement with Spire, Inc (via Spire Shared Services) in order to receive services from its parent company structure. The service agreement and the costs related to this affiliate transaction mitigate Laclede/MGE's stand-alone investment risk. Specifically, Laclede/MGE witness Thomas Flaherty testifies about Laclede/MGE's service company relationship between Laclede/MGE and Spire Shared Services, both owned by Spire, Inc.

These service company transactions mitigate Laclede/MGE's stand-alone small company risk from a standpoint of management expertise, access to capital, and technical expertise such as legal, engineering, financial and IT. Further, the public shareholders of Spire, Inc. benefit from the diversity of Spire subsidiaries that operate across regions. Therefore, this diversity in operations can mitigate small company risk of the operating performance of the subsidiaries impacts on Spire's financial results.

Customers pay for the risk mitigation of Laclede/MGE by paying rates that recover Laclede/MGE's service company fees and charges from Spire Shared Services. Therefore, the service company fee structure is designed to support Laclede/MGE and their stand-alone risk, and provide economies of scale and revenue diversity which Laclede/MGE could not have achieved on their own.

Ms. Ahern's proposal for a return on equity premium ignores this service company relationship, and the costs incurred by retail customers of Laclede/MGE for the costs and benefits of this holding company structure. The holding company structure is designed to mitigate operating affiliates' stand-alone investment risk. For these reasons, Ms. Ahern's proposed small company risk adder to the return on equity should be rejected.

Q ASSUMING THAT THE SMALL SIZE ADJUSTMENT WAS SHOWN TO BE REASONABLE, IS MS. AHERN'S PROPOSED SMALL COMPANY RETURN ON EQUITY FOR LACLEDE/MGE BASED ON AN ACCURATE RISK RETURN ASSESSMENT AS PROPOSED BY DUFF & PHELPS?

A No. Ms. Ahern's source, Duff & Phelps, proposes to adjust returns for a company's size based on market capitalization, but to also account for the company's industry risk in arriving at an appropriate risk adjusted return. The industry risk more than offsets the market capitalization risk for Laclede/MGE.

In its 2016 Valuation Handbook, Duff & Phelps recommends an industry risk premium in the range of -2.93% to -4.04% for natural gas delivery utilities with SIC Code 4924. Ms. Ahern's proposed small size adjustment to the equity return fails to also reflect the industry risk.

If the Commission is persuaded that Laclede/MGE be awarded a small size adjustment, then I urge it to also implement the downward adjustment for the low-risk nature of the natural gas delivery industry as recommended by Duff & Phelps. In this case, the small size equity return adder would be completely offset by a regulated utility low risk reduced return on equity adjustment – the two risk adjustments would cancel each other out.

III.B. Ahern Proposed Flotation Cost Adder

Q SHOULD MS. AHERN'S PROPOSED 16 BASIS POINT RETURN ON EQUITY ADDER FOR FLOTATION COSTS BE INCLUDED IN A RETURN ON EQUITY?

A No, it should not. Ms. Ahern estimates a flotation cost adder by manipulating the stock price DCF model to account for the flotation costs incurred by Laclede/MGE. Specifically, Ms. Ahern estimates that three issuances of common equity conducted by Laclede/MGE over the period May 2013 through May 2016 netted in total flotation costs of around $58.68 million. She estimates that these accounted for approximately 5.43% of the total gross proceeds in those stock sales. She then approximated a 16 basis point return on equity adder by reducing the stock price in the DCF formula by a factor of 1 minus this flotation cost adder of 5.43%. This resulted in a DCF return of 8.82% accounting for flotation costs, compared to 8.66% when flotation costs are not accounted for. Thus, she concludes that the flotation cost adder of 16 basis points is appropriate. (Schedule PMA-D8).

Q IS MS. AHERN'S 16 BASIS POINT FLOTATION COST ADDER REASONABLE?

A No. This is not reasonable, particularly in the way she has constructed it. Specifically, she neglects to consider that not all common equity for Laclede/MGE

American is derived from public stock issuances. Rather, a significant amount of equity is built through retained earnings, and certain transactions that increase common equity do not incur public stock issuance costs. As such, the percentage of market capitalization of Laclede/MGE's common stock of $3.0 billion (Schedule PMA-D3 at 9) in relationship to flotation costs of $58.68 million would produce a flotation cost adjustment of around 0.06%. Reflecting a flotation cost adjustment to the price of the DCF formula, would produce a DCF return of 8.72%, rather than Ms. Ahern's 8.82%. This alternative would produce a flotation cost adder of around 0.6 basis points.

Ms. Ahern's use of Laclede/MGE common stock issuance cost justifies my reasons in rejecting the small company adder. Laclede/MGE is not a stand-alone small company. Rather, it is a subsidiary of a larger company, Spire, Inc. The importance of rejecting the small company adder is emphasized by reviewing Ms. Ahern's proposed method for developing a flotation cost adder to arrive at her proposed return for Laclede/MGE. It is based on Spire's access to equity markets, not Laclede/MGE's.

Further, correcting Ms. Ahern's flotation cost methodology supports a flotation cost adder of no more than 0.6 basis points, and her recommended flotation cost adder of 16 basis points should be rejected.

III.C. Ahern's DCF

Q PLEASE DESCRIBE MS. AHERN'S DCF ANALYSIS.

A Ms. Ahern performed a constant growth DCF analysis on her proxy group. She relied on analysts' earnings growth rate projections from *Value Line*, Reuters, Zack's, and Yahoo! Finance. The average growth rate for her proxy group is 5.80%. (Schedule

PMA-D3, page 1). She used an annualized dividend and a 60-day average stock price to calculate the proxy group's dividend yield. The mean and median results of her DCF analysis are 8.65% and 8.70%, respectively. It is Ms. Ahern's practice to take the midpoint of the mean and median results, which produces a DCF return of 8.68%.

Q DO YOU HAVE ANY COMMENTS CONCERNING MS. AHERN'S DCF RETURN ESTIMATES?

A Yes. Similar to my DCF model, her proxy group's average DCF return is based on a growth rate of 5.80%, which is substantially higher than the consensus economists' projected growth rate for the economy (4.2%).[6] Therefore, her DCF analysis produces reasonable high-end DCF results.

Q DID MS. AHERN EXPRESS CONCERNS WITH THE RESULTS OF HER DCF ANALYSIS?

A Yes. At pages 22-26, Ms. Ahern opines that the DCF understates the current investor required rate of return on equity by approximately 490 basis points because of the concurrent rise in market prices, the use of accounting measures as proxies for capital appreciation, and the dramatic rise in interest rates and capital costs.

Q PLEASE RESPOND TO MS. AHERN'S STATEMENTS ON AND CONCERNS WITH THE RESULTS OF HER DCF ANALYSIS.

A First, as shown on my Schedule MPG-2 in my Direct testimony, there has not been a "dramatic rise in interest rates" in response to Federal Reserve ("Fed") comments and

[6] *Blue Chip Financial Forecasts*, June 1, 2017 at 14.

actions as Ms. Ahern would have us believe. On my Schedule MPG-2, I show the four times the Fed raised its target for the Federal Funds Rate. For each time the Fed raised its target, I also show the contemporaneous 30-Year Treasury bond yield, the A-rated utility bond yield, and the corresponding utility over Treasury spread. As evidenced on that Schedule MPG-2, capital costs have remained flat, to declining, over time since July 2015, even in the wake of Fed actions and comments.

Second, I believe the application of a DCF analysis produces reasonable and accurate estimates of the current market cost of equity for the utility companies of similar investment risk. More specifically, I disagree with Laclede/MGE witness Ms. Ahern's suggestion that the DCF model is understating the current market cost of equity. (Ahern Direct at 22-26).

Q PLEASE EXPLAIN WHY YOU BELIEVE THE DCF MODELS PRODUCE A REASONABLE ESTIMATE OF THE COMPANIES' MARKET COST OF COMMON EQUITY.

A The results of the DCF model are economically logical in comparison to alternative income investments and exhibit robust growth outlooks.

The DCF results generally produce economically logical results by comparison of the two major components of the DCF return: (1) the dividend yield, and (2) the growth rate. The utility stock investments are both income investments and growth investments. Hence, the stock yield component of the DCF model can be compared to alternative income investments of comparable risk to assess how it compares to alternative market investments.

On my Schedule MPG-R-6, I show a comparison of natural gas utility stock dividend yields compared to A-rated utility bond yields. This is an approximate risk

comparable investment for the income component of a utility stock DCF return. As shown on this schedule, utility stock yields are currently around 2.6%, which compares to A-rated utility bond yields of around 4.1%. This spread of around 150 basis points is in line with the 12-year average shown on this schedule. A high utility stock yield relative to an A-rated utility bond yield is an indication that the DCF model yield component is higher than normal and thus is a robust income return relative to alternative similar risk income investments.

From a DCF growth perspective, utility stocks are also producing strong growth outlooks relative to the past. The industry historical growth in dividends has been around 4.4%. (Schedule MPG-R-7). This compares to outlooks for future growth in utility dividends and earnings of around 5.8% (Schedule PMA-D3) to 6.1% (Gorman Direct Testimony, Schedule MPG-5). As such, a DCF return on utility stocks reflects a yield component and a growth component that both reflect robust return outlooks for utility stock investors, and are economically logical in comparison to alternative investments of comparable risk.

For these reasons, Laclede witness Ahern's contention that the DCF model is not producing reasonable results simply is without merit and should be disregarded.

III.D. Ahern Risk Premium

Q PLEASE DESCRIBE MS. AHERN'S RISK PREMIUM ANALYSIS.

A Ms. Ahern estimated a risk premium return of 10.57% based on the results of a PRPM^{TM} risk premium (11.62%) and prospective utility risk premium (9.51%). (Schedule PMA-D4).

Q PLEASE DESCRIBE MS. AHERN'S PRPM™ RISK PREMIUM STUDY.

A First, she derived an equity risk premium using the "PRPM™." The PRPM™ model estimated a proxy group average equity risk premium of 7.78%. She then added a forecasted risk-free rate of 3.65%, to produce an average and median cost of equity of 11.43% and 11.81%, respectively, with a midpoint PRPM™ risk premium estimate of 11.62%. (*Id*., page 2).

Q PLEASE DESCRIBE MS. AHERN'S UTILITY RISK PREMIUM STUDY.

A Ms. Ahern's utility risk premium model is based on a projected utility bond yield of 4.89%, and an average equity risk premium of 4.62%.

The 4.62% risk premium used by Ms. Ahern is the result of three separate risk premium studies that produce risk premiums of 4.46%, 4.26% and 5.15%. The first risk premium study produced an average beta-adjusted equity risk premium of 4.46% and was developed on page 8 of Schedule PMA-D4. This risk premium was based on an Ibbotson equity risk premium estimate (5.52%), PRPM™ estimate using Ibbotson data (6.38%), a regression on Ibbotson data (7.40%) *Value Line* equity risk premium estimate (4.60%), and a S&P 500 DCF derived equity risk premium using Bloomberg data (8.40%). The average of these five risk premium estimates of 6.46%, which was then adjusted by her proxy group average beta of 0.69, to produce a risk premium estimate of 4.46%.

The second risk premium of 4.26% was based on the average of a historical equity risk premium of the S&P Utility Index of 3.85%, Ms. Ahern's PRPM of 4.34%, regression of a historical risk premium of 5.50% and the forecasted equity risk premium of the total returns of the S&P Utility Index of 3.36% using Bloomberg data. (Schedule PMA-D4, Page 11 of 12)

Q IS MS. AHERN'S PREDICTIVE RISK PREMIUM MODEL ("PRPM") STUDY RESULT OF 11.62% REASONABLE?

A No. Ms. Ahern's PRPM™ measures the volatility of risk premiums based on return volatility of a stock index "total" return, less bond "income" return. This method of measuring risk premium and its volatility is flawed and biases the risk premium up, and distorts its volatility.

Specifically, a significant component of return volatility on stock is created by capital gains and losses. Without recognizing capital gains and losses, stock return volatility and bond return volatility would be muted significantly. This is a significant distinction because Ms. Ahern reflects the increased return volatility for stocks based on capital gains and losses, but ignores this significant investment return component for bond yields. Therefore, Ms. Ahern has not accurately measured the level of the risk premium, nor accurately characterized the volatility across time caused by market factors. Importantly, both stock and bond returns will be impacted by the capital gains and losses created by market factors that influence stock prices and bond prices. Ms. Ahern has significantly understated the return volatility of investing in bonds, and inflated the equity risk premium. This methodology simply is not balanced, and does not reflect an accurate measurement of a market risk premium.

Q DO YOU HAVE ANY COMMENTS CONCERNING MS. AHERN'S UTILITY RISK PREMIUM?

A Yes. This risk premium result of 9.51% was based on a projected prospective bond yield of 4.89% and an equity risk premium of 4.62%. This return on equity is substantially overstated for several reasons. First, her prospective bond yield of 4.89% overstates current observable A-rated utility bond yields of 4.16%. (Schedule

PMA-D4). Overstating the bond yield overstates her risk premium by approximately 73 basis points. In fact, more recent data shows that the 13-week average A-rated utility yield is approximately 3.90%, which is approximately 100 basis points lower than Ms. Ahern estimate of 4.89%. (Schedule MPG-R-8).

Q CAN MS. AHERN'S RISK PREMIUM MODELS BE USED TO ESTIMATE A FAIR RETURN FOR LACLEDE/MGE?

A Only generally. Reflecting her current observable A-rated utility bond yields of 4.16% (Schedule PMA-D4) and Ms. Ahern's equity risk premium estimate of 4.62% would imply a return on equity for Laclede/MGE in this case of approximately 8.80%.

III.E. Ahern CAPM

Q HOW DID MS. AHERN DERIVE HER CAPM RETURN ESTIMATE FOR LACLEDE/MGE?

A Ms. Ahern developed her CAPM return estimate on her Schedule PMA-D5. As shown on that schedule, she relied on a proxy group beta of 0.69, which was the average of the mean and median beta published by Bloomberg and *Value Line* for her proxy companies, a market risk premium of 7.53%, and a risk-free rate of 3.65%. Her CAPM methodology produces a traditional CAPM return of 8.81%.

Q DO YOU HAVE ANY ISSUES WITH MS. AHERN'S CAPM STUDY?

A Yes. I disagree with her methodology of developing the CAPM inputs. However, because her CAPM result is comparable to mine I will limit my rebuttal to Ms Ahern to models that produce unreasonable or inflated results.

III.F. Ahern ECAPM

Q PLEASE DESCRIBE MS. AHERN'S ECAPM ANALYSIS.

A The ECAPM analysis modifies the traditional CAPM equation by including a risk premium weighted by the utility beta, and the overall market beta of 1.0. The original ECAPM analysis was designed to use raw, or unadjusted, regression betas. In Ms. Ahern's ECAPM analysis, she adds two weighted risk premiums to a risk-free rate: a 75% weighted risk premium based on a 0.75 utility beta, and a 25% weighted risk premium based on a beta equal to the overall market beta of 1.0. The theory of the ECAPM is that a beta of less than 1.0 will increase toward the market beta of 1.0 over time, which is necessary because the risk of securities will be increasing over time.

Q WHAT ISSUES DO YOU TAKE WITH MS. AHERN'S ECAPM ANALYSIS?

A The ECAPM analysis should be rejected for several reasons. First, the practical result of Ms. Ahern's ECAPM is that the return is based on a beta estimate of 0.77,[7] instead of her actual *Value Line* utility beta of 0.69. The ECAPM analysis significantly overstates a utility company-specific risk premium for use in a risk premium analysis.

Second, the ECAPM produces the same mathematical adjustments to the result of a traditional CAPM return estimate as does the use of an adjusted *Value Line* beta relative to a raw beta. Theoretical constructs of the ECAPM are based on a raw beta or unadjusted beta. Using a raw beta, the ECAPM will increase the CAPM return estimate when the raw betas are less than 1.0, and decrease the CAPM return estimate when the raw betas are greater than 1.0. This is a redundant CAPM return adjustment, and overstates a fair return for Laclede/MGE.

[7] 75% x 0.69 + 25% x 1 = 0.77.

Value Line's adjusted beta creates the same impact on a CAPM return estimate as the ECAPM. *Value Line*'s adjusted betas are produced by giving 35% weight to the market beta of 1.0 and 67% weight to the raw beta estimates. *Value Line*'s beta adjustment, when used in a traditional CAPM return estimate, will increase a CAPM return estimate when the beta is less than 1.0, and decrease the CAPM return estimate when the beta is greater than 1.0. Therefore, an ECAPM with a raw beta produces the same impact on the CAPM return estimate as does a traditional CAPM using an adjusted beta estimate. Importantly, I am not aware of any research that was subjected to peer review that supports Ms. Ahern's proposed use of an adjusted beta in an ECAPM study. Therefore, Ms. Ahern's proposal to use an "adjusted" beta in an ECAPM is neither based on sound academic principles, nor is it supported by the academic community, and should be rejected.

Further, using an adjusted beta in an ECAPM analysis, as Ms. Ahern proposes, double-counts the increase in the CAPM return estimates for betas less than 1.0, and correspondingly decreases the CAPM return estimates for companies that have betas greater than 1.0. Since utility companies have betas less than 1.0, Ms. Ahern's application of an ECAPM with adjusted beta estimates overstates a CAPM return estimate for a utility company.

For all these reasons, Ms. Ahern's ECAPM analysis should be rejected.

Q CAN MS. AHERN'S ECAPM ANALYSIS BE REVISED TO PRODUCE A MORE REASONABLE RETURN ESTIMATE?

A Yes. In her testimony she shows beta estimates based on published adjusted betas, and unadjusted betas. (Schedule PMA-D6). The published *Value Line* adjusted beta for her proxy group decreases from 0.74 down to 0.57 when the beta adjustment is

removed. Hence, using an unadjusted beta of 0.57 in her ECAPM study would produce a more reasonable result. Using the information shown on her Schedule PMA-D5, with an unadjusted beta of 0.57 will produce an ECAPM for her utility proxy group of 8.8%.[8]

III.G. Ahern Non-Regulated Companies Analysis

Q IS MS. AHERN'S NON-PRICE REGULATED COMPANIES' EARNED RETURN ON EQUITY ESTIMATE OF 10.45% A REASONABLE METHODOLOGY OF ESTIMATING LACLEDE/MGE'S CURRENT MARKET COST OF EQUITY?

A No. Ms. Ahern's non-price regulated return on equity estimate is based on the results from the same cost of equity studies described above on a proxy group of 16 non-price regulated companies. The average result of her mean and median market-based studies on her non-price regulated companies produced her estimated return on equity from this methodology of 10.45% ((10.59% + 10.30%) ÷ 2). (Schedule PMA-D7.).

Q ARE THERE OTHER REASONS TO DISREGARD THE NON-PRICE REGULATED RISK PROXY GROUP ESTIMATE OF LACLEDE/MGE'S CURRENT RETURN ON EQUITY?

A Yes. Ms. Ahern has not proved that these companies are risk comparable to Laclede/MGE. While these companies may have comparable beta estimates, she has not shown that they face comparable business and operating risk to a low-risk regulated gas utility company. To draw a valid comparison between Laclede/MGE and any proxy group, it is necessary to show that these companies have comparable

[8] 3.65% +0.25% x 7.53% + 0.75 x 0.57 x 7.53% = 8.75%, rounded to 8.8%.

risk factors that are commonly used by investment professionals to compare investment risk between different investment alternatives. Because she has not shown that these companies are indeed risk comparable to Laclede/MGE, her estimated return on this proxy group is not reliable and should be disregarded.

Further, the RP and CAPM estimates on Ms. Ahern's non-utility proxy group were flawed and biased for the same reasons described above concerning her utility proxy group. As such, her return on equity estimates based on her non-utility proxy group do not reflect a reasonable risk proxy for Laclede/MGE, and are based on flawed applications of DCF risk premiums, with inappropriate return on equity adders.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does.

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Laclede Gas Company / Missouri Gas Energy

Rate of Return

Line	Description	Weight (1)	Cost (2)	Weighted Cost (3)
1	Long-Term Debt	52.80%	4.15%	2.19%
2	Common Equity	47.20%	**9.20%**	4.34%
3	**Total**	**100.00%**		**6.53%**

Source:
Glenn Buck Workpapers.

Laclede Gas Company / Missouri Gas Energy

Capital Structure

Line	Description	Proposed Amount (1)	Proposed Weight (2)	New Debt (3)	Debt Adjusted Adjusted (4) = (1)+(3)	Debt Adjusted Weight (5)	Goodwill (6)	Equity Adjusted Adjusted (7) = (4)+(6)	Equity Adjusted Weight (8)
1	Long-Term Debt[1]	$ 817,867,771	42.8%	$170,000,000	$ 987,867,771	47.5%		$ 987,867,771	52.8%
2	Common Equity[2]	$ 1,092,994,071	57.2%		$ 1,092,994,071	52.5%	$ (210,000,000)	$ 882,994,071	47.2%
3	**Total**	**$ 1,910,861,842**	**100.0%**		**$ 2,080,861,842**	**100.0%**		**$ 1,870,861,842**	**100.0%**

Sources and Notes:
Glenn Buck Workpapers.
[1]The long-term debt was adjusted for the $170 million actual new debt issuance.
[2]The common equity was adjusted to exclude $210 million of goodwill capital.

Laclede Gas Company / Missouri Gas Energy

Laclede Gas
Historical Capital Structure
(Millions)

Line	Description	2012 (1)	2013 (2)	2014 (3)	2015 (4)	2016 (5)
	Actual					
1	Short-Term Debt	$77.0	$120.7	$238.6	$233.0	$243.7
2	Long-Term Debt	$339.0	$887.7	$807.9	$808.1	$804.1
3	Common Equity	$491.0	$973.9	$1,007.8	$1,037.8	$1,068.5
4	Total Capital	$907.0	$1,982.3	$2,054.3	$2,078.9	$2,116.3
	Including Short-Term Debt					
5	Short-Term Debt	8.5%	6.1%	11.6%	11.2%	11.5%
6	Long-Term Debt	37.4%	44.8%	39.3%	38.9%	38.0%
7	Common Equity	54.1%	49.1%	49.1%	49.9%	**50.5%**
8	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
	Excluding Short-Term Debt					
9	Long-Term Debt	40.8%	47.7%	44.5%	43.8%	42.9%
10	Common Equity	59.2%	52.3%	55.5%	56.2%	57.1%
11	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
12	Goodwill	$0.0	$247.1	$210.2	$210.2	$210.2
	Removed Goodwill Capital					
13	Short-Term Debt	$77.0	$120.7	$238.6	$233.0	$243.7
14	Long-Term Debt	$339.0	$887.7	$807.9	$808.1	$804.1
15	Common Equity	$491.0	$726.8	$797.6	$827.6	$858.3
16	Total Capital	$907.0	$1,735.2	$1,844.1	$1,868.7	$1,906.1
	Including Short-Term Debt					
17	Short-Term Debt	8.5%	7.0%	12.9%	12.5%	12.8%
18	Long-Term Debt	37.4%	51.2%	43.8%	43.2%	42.2%
19	Common Equity	54.1%	41.9%	43.3%	44.3%	**45.0%**
20	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
	Excluding Short-Term Debt					
21	Long-Term Debt	40.8%	55.0%	50.3%	49.4%	48.4%
22	Common Equity	59.2%	45.0%	49.7%	50.6%	**51.6%**
23	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Source:
2012 - 2016 Spire Missouri 10-K and 10Q.

Laclede Gas Company / Missouri Gas Energy

Spire, Inc.
Historical Capital Structure
(Millions)

Line	Description	2012 (1)	2013 (2)	2014 (3)	2015 (4)	2016 (5)
	Actual					
1	Short-Term Debt	$65.0	$74.0	$287.1	$418.0	$648.7
2	Long-Term Debt	$339.0	$912.7	$1,851.0	$1,771.5	$1,820.7
3	Common Equity	$602.0	$1,046.3	$1,508.4	$1,573.6	$1,768.2
4	Total Capital	$1,006.0	$2,033.0	$3,646.5	$3,763.1	$4,237.6
	Including Short-Term Debt					
5	Short-Term Debt	6.5%	3.6%	7.9%	11.1%	15.3%
6	Long-Term Debt	33.7%	44.9%	50.8%	47.1%	43.0%
7	Common Equity	59.8%	51.5%	41.4%	41.8%	**41.7%**
8	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
	Excluding Short-Term Debt					
9	Long-Term Debt	36.0%	46.6%	55.1%	53.0%	50.7%
10	Common Equity	64.0%	53.4%	44.9%	47.0%	49.3%
11	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
12	Goodwill	$0.0	$247.1	$937.8	$946.0	$1,164.9
	Remove Goodwill Capital					
13	Short-Term Debt	$65.0	$74.0	$287.1	$418.0	$648.7
14	Long-Term Debt	$339.0	$912.7	$1,851.0	$1,771.5	$1,820.7
15	Common Equity	$602.0	$799.2	$570.6	$627.6	$603.3
16	Total Capital	$1,006.0	$1,785.9	$2,708.7	$2,817.1	$3,072.7
	Including Short-Term Debt					
17	Short-Term Debt	6.5%	4.1%	10.6%	14.8%	21.1%
18	Long-Term Debt	33.7%	51.1%	68.3%	62.9%	59.3%
19	Common Equity	59.8%	44.8%	21.1%	22.3%	**19.6%**
20	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%
	Excluding Short-Term Debt					
21	Long-Term Debt	36.0%	53.3%	76.4%	73.8%	75.1%
22	Common Equity	64.0%	46.7%	23.6%	26.2%	**24.9%**
23	Total Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Source:
2012 - 2016 Spire Inc. 10-K and 10Q.

Laclede Gas Company / Missouri Gas Energy

Most Recent Authorized Return on Equity and Common Equity Ratios of Proxy Group Subsidiaries

Line	Company	State	Docket Number (1)	Authorized Date (2)	ROE (3)	Common Equity Ratio (4)
	Atmos Energy					
1	Atmos Energy Corp.	CO	D-13AL-0496G	3/16/2014	9.72%	52.57%
2	Atmos Energy Corp.	GA	D-30442	3/31/2010	10.70%	47.70%
3	Atmos Energy Corp.	KS	D-14-ATMG-320-RTS	9/4/2014	9.10%	53.00%
4	Atmos Energy Corp.	KY	C-2013-00148	4/22/2014	9.80%	49.16%
5	Atmos Energy Corp.	LA	D-U-21484 (LGS)	4/17/1996	10.77%	53.25%
6	Atmos Energy Corp.	MS	C-U-4728	11/8/1985	12.94%	77.76%
7	Atmos Energy Corp.	TN	D-14-00146	5/11/2015	9.80%	53.13%
8	Atmos Energy Corp.	TX	D-GUD-10170 (Mid-Tex)	12/4/2012	10.50%	51.69%
9	**Average**					**54.78%**
	New Jersey Resources Corp.					
10	New Jersey Natural Gas Co.	NJ	D-GR-15111304	9/23/2016	9.75%	**52.50%**
	Northwest Natural Gas Company					
11	Northwest Natural Gas Co.	OR	D-UG-221	10/26/2012	9.50%	50.00%
12	Northwest Natural Gas Co.	WA	D-UG-08-0546	12/26/2008	10.10%	50.74%
13	**Average**					**50.37%**
	South Jeresy Industries					
14	South Jersey Gas Co.	NJ	D-GR-13111137	9/30/2014	9.75%	**51.90%**
	Southwest Gas Holdings					
15	Southwest Gas Corp.	AZ	D-G-01551A-16-0107	4/11/2017	9.50%	51.70%
16	Southwest Gas Corp.	CA	A-12-12-024 (SoCal)	6/12/2014	10.10%	55.00%
17	Southwest Gas Corp.	CA	A-12-12-024 (NoCal)	6/12/2014	10.10%	55.00%
18	Southwest Gas Corp.	CA	A-12-12-024 (LkTah)	6/12/2014	10.10%	55.00%
19	Southwest Gas Corp.	NV	D-12-04005 (Southern)	10/31/2012	10.00%	42.74%
20	Southwest Gas Corp.	NV	D-12-04005 (Northern)	10/31/2012	9.30%	59.06%
21	**Average**					**53.08%**
	Spire					
22	Spire Missouri Inc.	MO	C-GR-99-315	12/14/1999	10.50%	52.66%
23	Missouri Gas Energy	MO	C-GR-2009-0355	2/10/2010	10.00%	38.66%
24	Spire Alabama Inc.	AL	D-18046	7/2/1981	14.00%	37.19%
25	Mobile Gas Service Corp	AL	D-24794	11/27/1995	13.60%	46.99%
26	**Average**					**43.88%**
27	Mean				10.44%	51.70%
28	Median				10.05%	52.20%

Source:
SNL Financial downloaded 10/9/17.

Laclede Gas Company / Missouri Gas Energy

Adjusted Debt Ratio
(Gorman Proposed Capital Structure)

Line	Description		Amount (1)	Weight (2)
1	Long-Term Debt	$	987,867,771	51.23%
2	Off-Balance sheet Debt*	$	57,460,000	2.98%
3	**Total Debt**	**$**	**1,045,327,771**	**54.21%**
4	Common Equity		882,994,071	45.79%
5	**Total**	**$**	**1,928,321,842**	**100.00%**

Sources:
Schedule MPG-R-1.
*S&P, CreditStats, downloaded October 11, 2017.

Laclede Gas Company / Missouri Gas Energy

Adjusted Debt Ratio
(Buck Proposed Capital Structure)

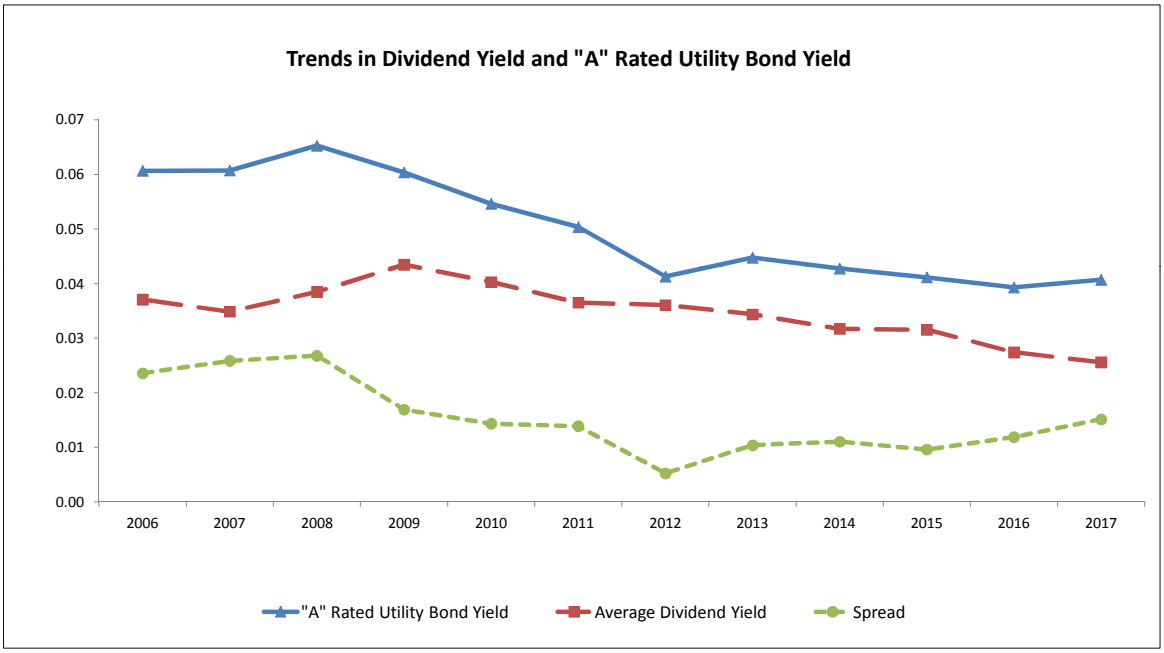
Line	Description		Amount (1)	Weight (2)
1	Long-Term Debt	$	817,867,771	41.55%
2	Off-Balance sheet Debt*	$	57,460,000	2.92%
3	**Total Debt**	**$**	**875,327,771**	**44.47%**
4	Common Equity		1,092,994,071	55.53%
5	**Total**	**$**	**1,968,321,842**	**100.00%**

Sources:
Schedule MPG-R-2.
*S&P, CreditStats, downloaded October 11, 2017.

Laclede Gas Company / Missouri Gas Energy

Natural Gas Utilities
(Valuation Metrics)

Line	Company	Dividend Yield[1] 12-Year Average (1)	2017 [2/a] (2)	2016 (3)	2015 (4)	2014 (5)	2013 (6)	2012 (7)	2011 (8)	2010 (9)	2009 (10)	2008 (11)	2007 (12)	2006 (13)
1	Atmos Energy	3.84%	2.23%	2.39%	2.88%	3.11%	3.53%	4.13%	4.19%	4.70%	5.34%	4.78%	4.16%	4.66%
2	Chesapeake Utilities	3.10%	1.76%	1.91%	2.18%	2.44%	2.87%	3.25%	3.36%	3.91%	4.09%	4.10%	3.62%	3.76%
3	New Jersey Resources	3.27%	2.62%	2.86%	3.14%	3.50%	3.71%	3.38%	3.33%	3.69%	3.46%	3.35%	3.02%	3.19%
4	NiSource Inc.	4.25%	2.87%	2.76%	3.53%	2.69%	3.30%	3.84%	4.53%	5.66%	7.64%	5.69%	4.29%	4.21%
5	Northwest Nat. Gas	3.65%	3.07%	3.28%	4.01%	4.14%	4.22%	3.83%	3.85%	3.63%	3.73%	3.27%	3.12%	3.73%
6	ONE Gas Inc.	2.44%	2.46%	2.32%	2.71%	2.28%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	3.23%	3.15%	3.64%	3.95%	3.40%	3.14%	3.22%	2.81%	3.00%	3.43%	3.08%	2.81%	3.15%
8	Southwest Gas	2.87%	2.49%	2.62%	2.87%	2.72%	2.69%	2.75%	2.78%	3.15%	4.01%	3.19%	2.56%	2.60%
9	Spire Inc.	3.93%	3.01%	3.08%	3.53%	3.78%	3.96%	4.11%	4.31%	4.70%	3.91%	3.94%	4.43%	4.34%
10	UGI Corp.	2.88%	1.96%	2.35%	2.50%	2.61%	3.01%	3.68%	3.30%	3.48%	3.23%	2.85%	2.69%	2.96%
11	WGL Holdings Inc.	3.91%	2.52%	2.94%	3.41%	4.24%	3.94%	3.89%	4.06%	4.37%	4.62%	4.22%	4.19%	4.48%
12	**Average**	**3.48%**	**2.56%**	**2.74%**	**3.16%**	**3.17%**	**3.44%**	**3.61%**	**3.65%**	**4.03%**	**4.35%**	**3.85%**	**3.49%**	**3.71%**
13	Median	3.40%	2.52%	2.76%	3.14%	3.11%	3.42%	3.75%	3.60%	3.80%	3.96%	3.65%	3.37%	3.75%
14	**"A" Rated Utility Bond Yield[3]**	**5.02%**	**4.07%**	**3.93%**	**4.12%**	**4.28%**	**4.48%**	**4.13%**	**5.04%**	**5.46%**	**6.04%**	**6.53%**	**6.07%**	**6.07%**
15	**Spread**	**1.54%**	**1.51%**	**1.19%**	**0.96%**	**1.11%**	**1.04%**	**0.52%**	**1.39%**	**1.43%**	**1.69%**	**2.68%**	**2.59%**	**2.36%**



Sources:
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.
[2] The Value Line Investment Survey, September 1, 2017.
[3] www.moodys.com, Bond Yields and Key Indicators, through August 31, 2017.
Notes:
[a] Based on the average of the high and low price for 2017 and the projected 2017 Dividends Declared per share, published in The Value Line Investment Survey, September 1, 2017.

Laclede Gas Company / Missouri Gas Energy

Dividend Growth
(Natural Gas Utilities)

Line	Company	12-Year Average (1)	2017 [2] (2)	2016 (3)	2015 (4)	2014 (5)	2013 (6)	2012 (7)	2011 (8)	2010 (9)	2009 (10)	2008 (11)	2007 (12)	2006 (13)
						Dividend per Share[1]								
1	Atmos Energy	1.43	1.80	1.68	1.56	1.48	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26
2	Chesapeake Utilities	0.97	1.26	1.19	1.12	1.07	1.01	0.96	0.91	0.87	0.83	0.81	0.78	0.77
3	New Jersey Resources	0.74	1.02	0.98	0.93	0.86	0.81	0.77	0.72	0.68	0.62	0.56	0.51	0.48
4	NiSource Inc.	0.89	0.70	0.64	0.83	1.02	0.98	0.94	0.92	0.92	0.92	0.92	0.92	0.92
5	Northwest Nat. Gas	1.71	1.88	1.87	1.86	1.85	1.83	1.79	1.75	1.68	1.60	1.52	1.44	1.39
6	ONE Gas Inc.	1.28	1.68	1.40	1.20	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	0.79	1.10	1.06	1.02	0.96	0.90	0.83	0.75	0.68	0.61	0.56	0.51	0.46
8	Southwest Gas	1.25	1.98	1.80	1.62	1.46	1.32	1.18	1.06	1.00	0.95	0.90	0.86	0.82
9	Spire Inc.	1.67	2.10	1.96	1.84	1.76	1.70	1.66	1.61	1.57	1.53	1.49	1.45	1.40
10	UGI Corp.	0.69	0.95	0.93	0.89	0.79	0.74	0.71	0.68	0.60	0.52	0.50	0.48	0.46
11	WGL Holdings Inc.	1.62	2.02	1.93	1.83	1.72	1.66	1.59	1.55	1.50	1.47	1.41	1.37	1.35
12	**Average**	**1.17**	**1.50**	**1.40**	**1.34**	**1.25**	**1.24**	**1.18**	**1.13**	**1.08**	**1.04**	**1.00**	**0.96**	**0.93**
13	**Industry CAGR**	**4.44%**												

Sources:
[1] The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2017.
[2] The Value Line Investment Survey, September 1, 2017.
Notes:
CAGR = Compound Annual Growth Rate

Laclede Gas Company / Missouri Gas Energy

Treasury and Utility Bond Yields

Line	Date	Treasury Bond Yield[1] (1)	"A" Rated Utility Bond Yield[2] (3)	"Baa" Rated Utility Bond Yield[2] (4)
1	10/06/17	2.91%	3.95%	4.30%
2	09/29/17	2.86%	3.92%	4.28%
3	09/22/17	2.80%	3.88%	4.25%
4	09/15/17	2.77%	3.86%	4.23%
5	09/08/17	2.67%	3.78%	4.15%
6	09/01/17	2.77%	3.85%	4.23%
7	08/25/17	2.75%	3.83%	4.20%
8	08/18/17	2.78%	3.85%	4.22%
9	08/11/17	2.79%	3.86%	4.22%
10	08/04/17	2.84%	3.90%	4.27%
11	07/28/17	2.89%	3.97%	4.32%
12	07/21/17	2.81%	3.91%	4.27%
13	07/14/17	2.91%	4.02%	4.40%
14	**Average**	**2.81%**	**3.89%**	**4.26%**
15	**Spread To Treasury**		**1.08%**	**1.45%**

Sources:

[1] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.

[2] http://credittrends.moodys.com/.