Exhibit No.: 265
Issues: Rate of Return and Capital Structure
Witness: David Murray
Sponsoring Party: MoPSC Staff
Type of Exhibit: Surrebuttal Testimony
Case Nos.: GR-2017-0215 and 0216
Date Testimony Prepared: November 21, 2017

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

FINANCIAL ANALYSIS UNIT

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

SPIRE MISSOURI, INC., d/b/a SPIRE

LACLEDE GAS COMPANY and MISSOURI GAS ENERGY
GENERAL RATE CASE

CASE NOS. GR-2017-0215 and GR-2017-0216

Jefferson City, Missouri
November 2017

** Denotes Confidential Information **

TABLE OF CONTENTS OF

SURREBUTTAL TESTIMONY OF

DAVID MURRAY

SPIRE MISSOURI, INC., d/b/a SPIRE

LACLEDE GAS COMPANY and MISSOURI GAS ENERGY
GENERAL RATE CASE

CASE NOS. GR-2017-0215 and GR-2017-0216

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

SPIRE MISSOURI, INC., d/b/a SPIRE

LACLEDE GAS COMPANY and MISSOURI GAS ENERGY
GENERAL RATE CASE

CASE NOS. GR-2017-0215 and GR-2017-0216

Q. Please state your name.

A. My name is David Murray.

Q. Are you the same David Murray who prepared the Rate-of-Return Section of Staff's Cost of Service Report ("Staff Report") and rebuttal testimony in these cases?

A. Yes, I am. I filed rate-of-return ("ROR") testimony on September 8, 2017, and rebuttal testimony on October 17, 2017.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to Pauline M. Ahern's, Glenn W. Buck's and Michael P. Gorman's rebuttal testimonies. Ms. Ahern and Mr. Buck sponsor testimony on behalf of Spire Missouri. Mr. Gorman sponsors testimony on behalf of the Office of the Public Counsel ("OPC") and the Missouri Industrial Energy Consumers ("MIEC"). Ms. Ahern addressed my return on common equity ("ROE") recommendation as well as my capital structure recommendation; Mr. Buck addressed my capital structure recommendation; and Mr. Gorman provided his capital structure recommendation in his rebuttal testimony rather than his direct testimony so I will address his recommended capital structure in my surrebuttal testimony.

I will also provide my capital structure recommendation as of the true-up date in this case because the necessary information was available at the time I prepared this testimony. Additionally, Mr. Buck's and Mr. Gorman's rebuttal testimonies provide their estimates of the capital structure as of the true-up date. By providing my true-up recommendation now, the Commission can evaluate all three positions at once.

EXECUTIVE SUMMARY

Q. What are the main areas of disagreement you have with the other witnesses as they relate to an appropriate capital structure for purposes of setting LAC's and MGE's allowed ROR?

A. I recommend the Commission set the ROR for Spire Missouri's two divisions, Laclede Gas ("LAC") and Missouri Gas Energy ("MGE) based on Spire, Inc.'s consolidated capital structure as of the true-up date; the Company witnesses recommend the use Spire Missouri's actual capital structure as of the true-up date; and Mr. Gorman recommends the use of Spire Missouri's adjusted capital structure to remove an amount from common equity equivalent to the current reported carrying value of Spire Missouri's goodwill asset. Neither the Company nor Mr. Gorman includes short-term debt in their recommended capital structures. Staff's recommended capital structure includes short-term debt to recognize the fact that Spire, Inc. and Spire Missouri have consistently carried high short-term debt balances well in excess of construction work in progress ("CWIP") balances. Because Staff is recommending short-term gas assets be included in rate base, the average short-term debt in excess of CWIP should be included in the ratemaking capital structure. Staff's recommendation to include short-term debt in the capital structure is applicable whether the

Commission adopts Staff's recommendation to use Spire, Inc.'s consolidated capital structure or if the Commission uses Spire Missouri's capital structure.

Q. What are the main areas of contention as it relates to the recommended allowed ROE in this case?

A. Ms. Ahern recommends the Commission authorize LAC and MGE an ROE of 10.35%. Ms. Ahern's premise for her ROE recommendation is that this is the cost of equity for Spire Missouri's regulated gas utility assets. Staff has provided its own cost of equity estimate for gas utility assets, which is corroborated by several third-party sources. Staff recognizes its cost of equity estimates are lower than average allowed ROEs, including the Commission's recent allowed ROE for Kansas City Power & Light ("KCPL") in Case No. ER-2016-0385. Therefore, Staff provides the Commission with market and economic data that should allow it to make an informed decision on a fair and reasonable allowed ROE for LAC and MGE as compared to the Commission's recent decision. Ms. Ahern asserts the Commission's recent allowed ROE for KCPL is not relevant to determining a fair and reasonable allowed ROE for LAC and MGE. As Staff will discuss in its testimony, this information is relevant and should be considered by the Commission because investors consistently compare and contrast the risk, return, valuation and growth differences of the three utility subsectors (i.e. gas, electric and water) when evaluating investment alternatives.

STAFF RESPONSE TO GLENN BUCK'S RECOMMENDED CAPITAL STRUCTURE AND COST OF DEBT FOR SPIRE MISSOURI

Q. Did Mr. Buck provide a preliminary true-up capital structure recommendation as of September 30, 2017, in his rebuttal testimony?

A. Yes. He provided this capital structure on page 2 of his rebuttal testimony.

Q. Has Mr. Buck since sponsored true-up testimony that provides a true-up capital structure based on actual figures rather than estimates?

A. Yes. Mr. Buck filed true-up testimony on October 27, 2017, which provides the Company's final recommended capital structure. Mr. Buck recommends the use of Spire Missouri's capital structure without consideration for short-term debt. His recommended capital structure consists of 54.2% common equity and 45.8% long-term debt.

Q. What is Staff's recommended capital structure as of the true-up date?

A. Staff recommends the Commission adopt Spire, Inc.'s consolidated capital structure as of September 30, 2017, with inclusion of an average amount of short-term debt in excess of an average amount of CWIP for the period September 30, 2014, through September 30, 2017. This capital structure consists of 45.56% common equity, 47.97% long-term debt and 6.47% short-term debt (see Schedule 1-1).

Q. Have you also updated the cost components for long-term debt and short-term debt?

A. Yes. I accepted the Company's calculation of Spire, Inc.'s embedded cost of debt. I applied a 1.5% cost of short-term debt that was identified in Spire, Inc.'s recent 2017 Securities and Exchange Commission ("SEC") 10-K filing.

Q. Although you are not recommending the Commission adopt Spire Missouri's capital structure for ratemaking, if this capital structure were to be adopted, should it include short-term debt?

A. Yes. Mr. Buck's recommended capital structure suggests the Company does not use any short-term debt to support its rate base. While Staff accepts this assumption was reasonable when carrying costs on gas inventories were recovered through the purchase gas

adjustment ("PGA") and the ("ACA") process, both the Company and Staff are now proposing these assets be included in rate base. Therefore, an amount of short-term debt should follow. If a Spire Missouri capital structure is adopted, Staff recommends the Commission use the average short-term debt in excess of CWIP for the period September 30, 2013 through September 30, 2017, or approximately 6.16% of the capital structure (see Schedule 1-2).

Q. What cost components should be applied to a Spire Missouri capital structure?

A. I recommend an adjusted embedded cost of long-term debt of 4.10%. This is 3 basis points lower than the Company's indicated cost of debt of 4.13%. I adjusted the cost of Spire Missouri's recent $170 million of long-term debt issuances to account for the fact that Spire Missouri is rated one notch lower by both S&P and Moody's due to its affiliation with Spire, Inc.

I also adjusted Spire Missouri's cost of short-term debt because Spire Missouri had stronger commercial paper ratings (A-1/P-2) before it acquired MGE (A-2/P-2). The spread between commercial paper with these ratings is approximately 25 basis points. Therefore, if Spire Missouri's capital structure is used, its cost of short-term debt should be 1.25%.

Q. What pre-tax ROR is the Company requesting based on this true-up capital structure?

A. The Company's pre-tax ROR is 10.99%.

Q. Is the Company's requested pre-tax ROR higher than MGE's awarded ROR when it was owned by Southern Union?

A. Yes. In Case No. GR-2009-0355, MGE was awarded a pre-tax ROR of 10.224%. In Case No. GM-2013-0254, the Company agreed to cap its pre-tax ROR for

MGE's next rate case to no higher than this return. Spire Missouri complied with this condition in Case No. GR-2014-0007 by lowering its requested common equity ratio and its requested ROE.[1]

Q. What is your understanding as to why this condition was binding only for one rate case after Spire Missouri acquired the MGE assets?

A. My understanding is that the Company was concerned there may be issues beyond its control, such as tightening of capital markets, which could cause its cost of capital to be higher in the future.

Q. Are you aware of anything beyond the Company's control that has occurred, causing it to need a higher pre-tax ROR?

A. No.

Q. Do you think the Commission should use the awarded pre-tax ROR as a ceiling in this case even though Spire Missouri is no longer bound by this provision?

A. Yes. Considering the fact that the cost of capital has declined since the 2009 Southern Union rate case, it is reasonable to use this as a ceiling for the authorized pre-tax ROR. This information will also assist the Commission with determining the reasonableness of the various capital structure proposals in this case.

Q. Assuming the use of Spire Missouri's capital structure without short-term debt, how much would the equity ratio have to be reduced in order to achieve a pre-tax ROR of 10.224%?

A. As shown in Schedule 2, the equity ratio would need to be reduced to 48.14%.

[1] Case No. GR-2014-0007, Glenn Buck Direct Testimony, p. 5.

Q. Is this how the Company approached ensuring it complied with the Stipulation and Agreement in the 2014 rate case?

A. In part. The Company reduced its requested equity ratio and also reduced its requested ROE.

Q. If your 9.25% recommended ROE is applied to the true-up capital structure provided by Mr. Buck, what is the resulting pre-tax ROR?

A. It is 10.02%.

Q. What if the Commission authorized the high-end of your range and adopted the Company's recommended capital structure?

A. It would be 10.24%, which is above the 10.224%.

Q. Would the use of Spire's consolidated capital structure without short-term debt as of the true-up date result in a pre-tax ROR below 10.224%?

A. No. If I use the Company's recommended ROE and remove short-term debt from the capital structure, the pre-tax ROR is 10.30% (workpaper).

Q. What does the fact that these scenarios cause a higher pre-tax ROR than MGE was authorized in 2009 demonstrate?

A. The significant impact the common equity ratio has on the pre-tax ROR and the resulting revenue requirement. Although MGE's authorized ROR in 2009 was based on a 10% ROE, inclusion of short-term debt in the capital structure, and a 6.258% cost of long-term debt, the pre-tax ROR authorized in that case is lower than these scenarios even though Spire Missouri has an embedded cost of debt that is over 200 basis points lower at 4.13%.

Q. What do the above exercises demonstrate?

A. They demonstrate that regardless of the premise underlying various alternative capital structures, the capital structure components can be manipulated to achieve a specific outcome.

Q. What should the Commission keep in mind when it evaluates all the issues related to capital structure in this case?

A. The fact that Spire Missouri's capital structure components can be managed to target certain ratios for ratemaking purposes. Spire's consolidated capital structure has to be managed in the best interest of Spire's shareholders. Therefore, it is this capital structure that is most representative of a market-tested capital structure. Spire is utilizing more leverage at this level in order to achieve a lower overall cost of capital, but does not want this lower cost of capital to be shared with ratepayers. The Commission should use this capital structure as the benchmark for purposes of determining a reasonable authorized return because it represents the debt capacity of its subsidiaries' low-risk regulated gas utility assets.

STAFF RESPONSE TO PAULINE M. AHERN'S REBUTTAL TESTIMONY

Capital Structure

Q. What is Ms. Ahern's position as it relates to capital structure?

A. Ms. Ahern confirms Mr. Buck's recommended capital structure. She provides her view as to why this capital structure is more appropriate than Staff's recommendation to use Spire Inc.'s capital structure. She does not provide testimony as to why it is appropriate to exclude short-term debt. This aspect of the capital structure is addressed by Mr. Buck.

Q. Ms. Ahern cites four factors identified in "The Cost of Capital – A Practitioner's Guide," by David C. Parcell, when explaining why she believes

Spire Missouri's subsidiary capital structure should be used.[2] Are you familiar with these factors and this curriculum?

A. Yes. In fact, Ms. Ahern and I debated these four factors to some extent in the Missouri-American Water Company (MAWC) rate case in 2003, Case No. WR-2003-0500. Although Staff has continued to recommend the use of MAWC's parent company's capital structure, American Water Works Company Inc., and MAWC has consistently recommended the use of a subsidiary capital structure, because the Commission has not had to make a decision on this issue due to revenue requirement settlements in MAWC rate cases, there is no past Commission decision for this Commission to review for guidance.

Q. Can you please address each of the four factors as it relates to the current case?

A. Yes.

The first factor is:

> Whether the subsidiary utility obtains all of its capital from its parent, or issues its own debt and preferred stock.

As of January 2017, Spire Missouri began relying on Spire Inc. for its short-term capital needs through Spire Inc.'s consolidated commercial paper program. Additionally, as Staff discussed in its rebuttal testimony, Spire Inc. has made equity infusions into Spire Missouri in the past. However, Spire Missouri does issue long-term debt directly to third-party investors. Consequently, there is some blending of Spire Missouri's capital with Spire, Inc., especially as it relates to short-term capital.

[2] David C. Parcell, "The Cost of Capital – A Practitioner's Guide," 1997, p. 4-20.

The second factor is:

> Whether the parent guarantees any of the securities issued by the subsidiary.

Spire Inc. does not guarantee any of the securities issued by Spire Missouri. Consequently, this factor supports using Spire Missouri's capital structure.

The third factor is:

> Whether the subsidiary's capital structure is independent of its parent (i.e. existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility subsidiaries).

Spire Inc. issued debt to make an equity infusion in Spire Missouri in 2012. There is no evidence of debt financed equity infusions since 2012.

The third factor is not limited to just a consideration of the use of double-leverage. This is just one example of an item that should be evaluated to determine if the subsidiary capital structure is independent. As the language indicates, it is important to evaluate whether there is a proper relationship between risk and the amount of leverage used. Not only is there a debate between the parties in this case on this issue, but there also appears to be a difference in opinion between S&P and Moody's. Staff has provided S&P information that shows it assigns Spire Missouri a corporate credit rating of 'A-' based on Spire, Inc.'s consolidated credit risk profile, which considers Spire, Inc.'s financial risk profile (its capital structure) and its business risk profile (its regulatory environment and management, among a host of many other considerations). In the Staff COS report, I provided quantitative information that shows Spire Missouri's cash flow, i.e. funds from operations ("FFO"), could support a much higher amount of leverage and still have credit metrics consistent with S&P's 'A-' rating. Ms. Ahern indicated in her rebuttal testimony that she could not find support for

this calculation. Although I provided my supporting calculations in my workpapers, I will explain my approach now to ensure this calculation can be scrutinized. Spire Missouri's 'A-' credit rating is assigned based on Spire's business and financial risk. Spire Missouri has a stand-alone crediting profile ("SACP") of 'A'. Spire, Inc. is rated one notch lower than Spire Missouri's SACP due to its aggressive financial policy. Because Spire Missouri's corporate credit rating is assigned based on Spire Inc.'s higher financial risk, then Spire Missouri's financial risk should be consistent with Spire's financial risk. Spire is expected to have an FFO/debt ratio in the range of 16% to 18%, while Spire Missouri is expected to have an FFO/debt ratio of approximately 20% to 22%. Spire Missouri's FFO/debt ratio would be consistent with that of Spire, Inc. if it had an additional $365 million of debt in its capital structure. My calculations are shown in Schedule 3.

Moody's currently assigns Spire Missouri a pro-forma unsecured rating of 'A3' as compared to Spire Inc.'s unsecured rating of 'Baa2.' While Moody's ratings methodology allows for additional ratings notching differential between Spire Missouri and Spire, Inc., Moody's grid-indicated unsecured rating for Spire Missouri is 'A2' rather than the 'A3' ultimately assigned. Therefore, Spire Missouri's Moody's rating is also impacted by Spire, Inc.'s financial risk. [3]

In Staff's opinion, the Commission's most important consideration is to authorize a ratemaking capital structure that is consistent with Spire Missouri's debt capacity. The rationale for starting with Spire, Inc.'s common equity ratio is that this is the equity ratio that is consistent with the amount of leverage Spire, Inc. has determined the cash flows from its gas distribution operations can support, while still maintaining strong investment grade credit

[3] Moody's report discusses the holding company's financial risk as being a constraint on Spire Missouri's credit ratings.

ratings. This capital structure represents the true debt capacity of the low-risk gas utility assets and the lower cost of capital that is allowed by this lower risk.

The fourth factor is:

> Whether the parent (or consolidated enterprise) is diversified into non-utility operations.

The fourth factor is mainly concerned with whether one would reasonably expect the parent consolidated capital structure to be significantly different than that of its subsidiaries due to business risks that are widely diverse. As Staff explained in its rebuttal testimony, Spire, Inc. is a more pure-play gas utility now than it was the last time Spire Missouri filed rate cases on behalf of the LAC and MGE divisions. This factor supports the use of Spire, Inc.'s consolidated capital structure.

Q. Can you please summarize your consideration of the four factors?

A. Yes. In my opinion, the third and fourth factor support the use of Spire Inc.'s consolidated capital structure; the second factor supports the use of Spire Missouri's capital structure; while the first factor supports consideration of either capital structure.

Q. On pages seven to eight of her rebuttal testimony, Ms. Ahern cites a couple of sources to support her position that Spire Missouri's stand-alone capital structure should be used. Do you agree that these sources support the use of Spire Missouri's capital structure?

A. No. I agree with the authors that it is the risk to the capital that needs to be considered when estimating the cost of capital. The second source indicates that a "project" cost of capital is different than a "firm" cost of capital. I agree that this may be an issue for a diversified company, but Spire, Inc. is not a diversified company. It is predominately a gas distribution company with its three gas distribution subsidiaries making up more than 95% of the income from its gas utility and gas marketing business. It is clear that Spire, Inc. has

recognized that its regulated gas utility assets can support much more debt than it carries at the subsidiary level. The consolidated capital structure represents Spire's management's view as to the amount of leverage its subsidiaries' cash flows can support. Spire's choice to issue debt at the holding company should not preclude the Commission from considering this debt and the associated capital structure in the authorized ROR.

Q. On page 9 of her rebuttal testimony, Ms. Ahern indicates that Spire Missouri's capital structure is consistent with those of other gas utility operating companies. What is the average authorized common equity ratio for gas utilities for 2017 to date?

A. 50.67%, this is shown in Staff's Schedule 4-1. Schedules 4-2 through 4-4 show information for the following respective years: 2016, 2015, and 2014.

Q. When explaining S&P's ratings methodology, Ms. Ahern states that Spire, Inc.'s credit rating is a function of Spire Missouri and the rest of Spire's subsidiaries rather than the subsidiaries' ratings being a function of Spire's consolidated credit quality. Does this view help illustrate why Spire, Inc. can carry significant amounts of debt and still maintain an 'A-' corporate credit rating?

A. Yes. I agree with Ms. Ahern that Spire's business risk is almost purely based on the business risk profile of its regulated gas distribution subsidiaries. It is this low business risk profile that affords Spire, Inc. the ability to issue debt at the holding company level and still maintain its S&P 'A-' corporate credit rating. Because Spire, Inc.'s low-risk gas distribution assets allow it to issue low-cost debt financing, this lower cost should be shared with the ratepayers because they make these low-risk cash flows possible.

Q. Ms. Ahern compares and contrasts S&P's and Moody's ratings methodology on pages 10 through 19 of her rebuttal testimony. Is she correct that Moody's methodology

tends to give more weight to subsidiaries in general, and Spire Missouri in specific when assigning crediting ratings?

A. Yes. Staff acknowledged this in its direct testimony.[4] This does not mean the holding company's financial risk (i.e. holding company debt issuances) does not affect the financial stability of the subsidiaries. While structural subordination is considered by both S&P and Moody's when assigning ratings to specific debt issues, this does not mean that the subsidiaries' ratings are not impacted by the holding company's business and financial risk. S&P's rating for Spire Missouri's first mortgage bond ("FMB") is 'A', its unsecured rating for Spire Alabama is 'A-', and its unsecured rating for Spire, Inc. is 'BBB+'. These differentiated S&P ratings are a result of the differing characteristics of the securities, with Spire Missouri's debt being assigned the strongest rating of 'A' because it is a FMB and Spire Alabama being assigned 'A-' because it is unsecured debt, but it is still structurally closer to the assets than the debt issued by Spire, which explains Spire Inc.'s 'BBB+' rating. The key consideration is the subsidiaries' potential ratings if not for the holding company debt issued by Spire. In the case of Spire Missouri, its FMB debt would be rated 'A+'. Perhaps more unfair, but not at specific issue for the Missouri assets, is the fact that Alagasco's rating could be as high as 'AA-' if not for its affiliation with Spire, Inc. and its holding company leverage.

The same issues hold true for Moody's ratings of the subsidiaries. Moody's grid-indicated rating for Spire Missouri is 'A2' for its unsecured rating, but Moody's assigns it a pro forma 'A3' unsecured rating. Again, Alagasco is the most impacted by Spire's holding company debt. It has a grid-indicated rating of 'Aa2,' but because Moody's will not

[4] Staff COS Report, p. 19, l. 1, through p. 20, l. 18.

allow more than a three-notch difference between a subsidiary and its holding company, it ultimately assigns an 'A2' rating to Alagasco's unsecured debt.

Q. In Ms. Ahern's discussion about Spire's ratings being a function of the risk of the subsidiaries' asset and financial risk, she indicates that Spire's ratings could be upgraded or downgraded based on changes in the rating agencies' views of the risks related to the utilities. How could Spire, Inc. benefit if its subsidiaries are able to reduce their business risk and financial risk?

A. Spire could issue even more debt and still maintain its consolidated credit rating. Of course, if the subsidiaries are able to reduce their business and financial risk, their ratings would continue to be constrained by the holding company's financial risk.

Q. Pages 15 to 17 of Ms. Ahern's rebuttal testimony discuss various conditions from the Stipulation and Agreement in Case No. GM-2013-0254 and GM-2001-342 to support her position that Spire Missouri is insulated from Spire, Inc. Is her contention consistent with the Company's position in past cases?

A. No. As I explained in my rebuttal testimony, Mr. Buck did not recognize these Stipulation and Agreements ("S&A") when arguing for the use of Laclede Group's consolidated capital structure in Case No. GR-2014-0007. While Staff and other parties attempted to provide some safeguards in the S&A, most of these safeguards are reactionary and the thresholds for reaction are quite low.

Q. Considering that these conditions have not been recognized as being stringent enough to achieve S&P ratings separation, what can be done to ensure Spire Missouri's financial condition is not negatively impacted by Spire, Inc.?

A. If the Commission authorizes Spire Missouri a capital structure consistent with its parent company's more leveraged capital structure, Spire, Inc. will have a direct incentive to reduce the amount of leverage at the holding company in order to be authorized a higher equity ratio in subsequent rate cases.

Return on Common Equity

Q. What is Ms. Ahern's primary concern about your recommended ROE?

A. Ms. Ahern does not believe I should benchmark the recommended allowed ROE in this case to the Commission's recent allowed ROE of 9.5% for KCPL. She indicates that the cost of equity for the gas utility industry should be determined based on an assessment of just gas utility companies. While I agree that each subsector of the utility industry should be judged on its own merits, a comparison of the differing risk and return characteristics of of the various subsectors of the utility industry will help the Commission determine if it should authorize Spire Missouri an ROE different from that which it recently allowed KCPL.

Q. Ms. Ahern's rebuttal testimony claims that "comparisons of the relative risk between natural gas distribution companies and electric companies are not of any relevance in the determination of the return on common equity for the Companies."[5] Do you agree?

A. No. The Commission carefully analyzed all utility capital market evidence when it set an allowed ROE of 9.5% for KCPL in its recent rate case. The Commission was able to compare the capital market evidence it heard in the 2016 rate case to the evidence it heard in the 2014 UE and KCPL rate cases in which it decided an allowed ROE of approximately 9.5% was reasonable. In the 2014 UE rate case the Commission indicated the

[5] Ahern Rebuttal, p. 39, ll. 6-8.

following in Paragraph 13 of its *Report and Order* to support its decision to lower UE's allowed ROE to 9.53%:[6]

> In its decision regarding Ameren Missouri's last rate case, the Commission established an ROE of 9.8 percent. Since 2012, when that case was decided, interest rates have declined by approximately 37 basis points. Furthermore, utility stock prices have increased and their dividend yields have gone down. This indicates that utilities' cost of capital has decreased because they need to sell fewer shares to generate the capital they need to support their investments. As MIEC's witness, Michael Gorman, explained: "Because the price of stock has gone up and the other parameters of the stock have not significantly changed, that's a clear indication that investors have reduced their required cost of capital which has bid up the stock price." This suggests the ROE allowed to Ameren Missouri should also be decreased.

The Commission confirmed this in Paragraph 32 of its *Report and Order* in the 2014 KCPL rate case, Case No. ER-2014-0470 and reaffirmed its decision in KCPL's recent rate case, Case No. ER-2016-0285.

Considering the fact that macroeconomic and capital market conditions impact all subsectors of the utility industry similarly, e.g. price/earnings ratios and dividend yields, the Commission's allowed ROE in the recent KCPL rate case should be considered for purposes of determining what is a fair and reasonable allowed ROE for gas utility assets. Although I agree with Ms. Ahern that a fair and reasonable allowed ROE for natural gas distribution companies should be based on the specific risk profile of this subsector of the regulated utility industry, investors consistently compare the price they are willing to pay for gas utility stocks as compared to electric utility stocks based on the risk and growth profile of each industry. A careful and thoughtful comparison of the differences in the market trading multiples, dividend yields and growth rates can provide the Commission with valuable

[6] Footnotes omitted.

insight to determine if its recent allowed ROE of 9.5% for KCPL would also be fair and reasonable for Spire Missouri. Staff has provided market information that shows the Commission's allowed ROE of 9.5% for riskier, vertically-integrated electric utility assets would be too high for Spire Missouri's regulated gas utility assets.

Q. Can you provide additional information that compares trading multiples for all subsectors of the utility industry?

A. Yes. The below graph shows the P/E ratios[7] of Staff's proxy groups for current and recent electric, gas, and water rate cases:

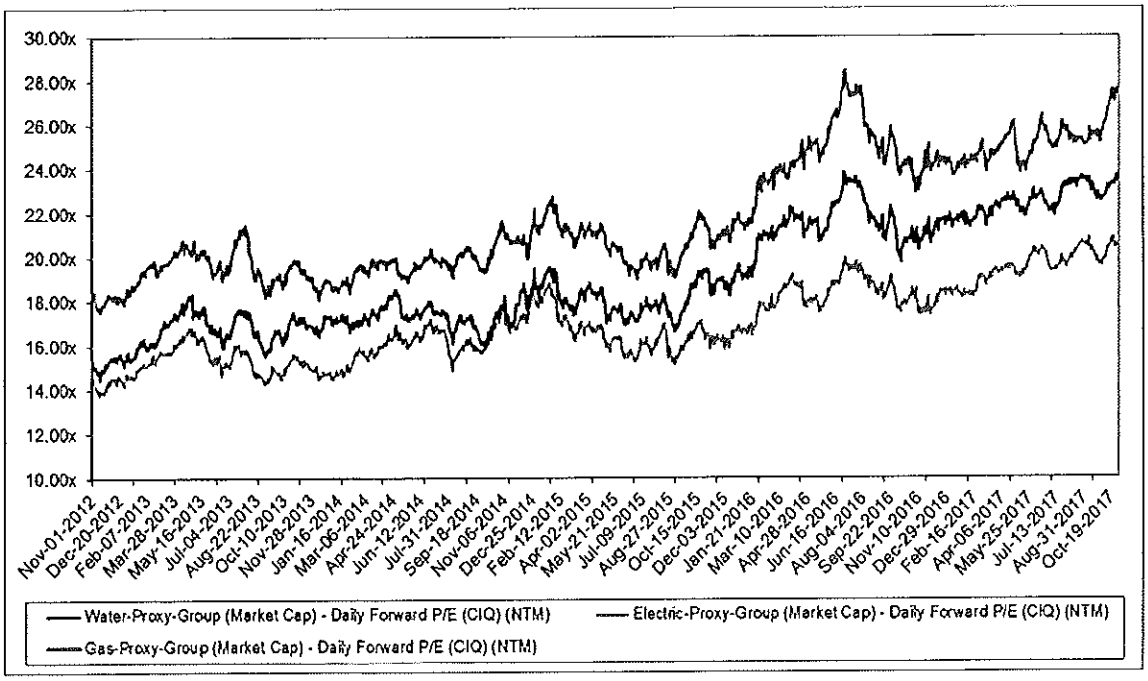


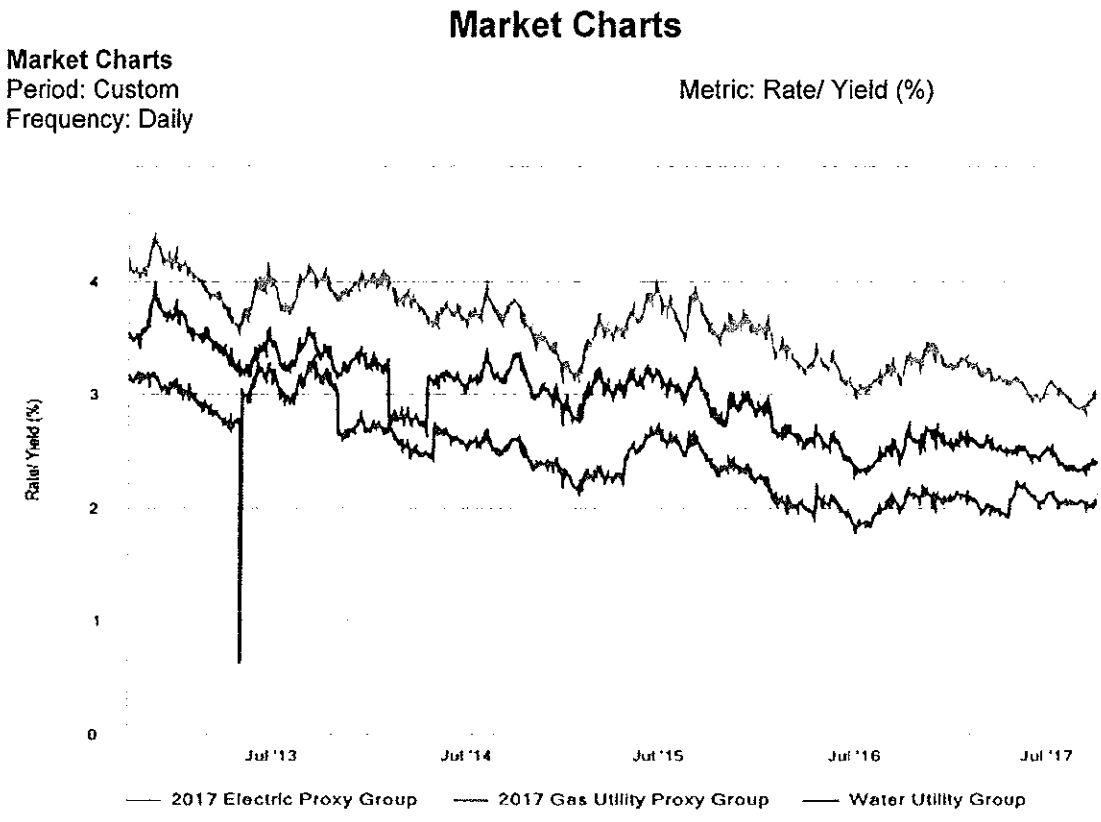
Figure 1 - Source: S&P CapIQ

As can be seen in the above graph, Staff's gas utility proxy group is trading almost 3 times higher than electric utilities on a price to forward earnings basis. While this may be in part due to higher expected near-term growth for the gas utility industry, it is also due to lower perceived risk in the gas utility industry. The Commission should consider this

[7] For the five-year period September 30, 2012 through September 30, 2017.

directly observable information when deciding whether its recent 9.5% allowed ROE is too high for Spire Missouri's gas assets.

In fact, the above chart shows that an allowed ROE of 9.5% for Missouri's large electric utilities may be too high in the current market environment considering the fact that electric utility companies are trading at higher P/E ratios than they were at the time the Commission evaluated the evidence in the recent KCPL rate case. If stock prices increase at a faster rate than dividends, then dividend yields will move inversely to P/E ratios. The general decline in dividend yields for the three subsectors of the utility industry is shown in the below graph (using same five-year time period above):



Source: SNL Financial

Apparently, the annual dividend wasn't picked up on May 2 and 3, 2013 for the water utility proxy group, explaining the brief blip. Otherwise, the relationships are fairly typical over the last five years for the three subsectors. Considering the fact that the hearings for the KCPL rate case occurred in February 2017, it is relevant to consider that the electric proxy group dividend yields were about 3.25% at the time. As can be seen in the graph, electric utility dividend yields are now below 3%, which are all time lows.

Considering that equity trading multiples imply a lower cost of equity for electric utilities now compared to last year and that gas utilities trade at higher premiums to that of electric companies, this data overwhelming supports authorizing Spire Missouri an ROE lower than what the Commission would authorize its larger electric utilities. Staff recommends that the Commission authorize Spire Missouri an ROE no higher than 9.25%.

Q. Did you provide any investment community commentary that supports a 25-basis point difference in the gas and electric industries' cost of equity?

A. Yes. I provided Wells Fargo's commentary in the Staff COS Report that indicated it uses a cost of equity that is 25 basis points lower for gas utilities as compared to electric utilities.[8]

Q. Does recent investment commentary continue to support the Commission authorizing a lower allowed ROE for gas utility assets?

A. Yes. For example, U.S. Capital Advisors indicated the following in an October 25, 2017, report:

> We believe rich valuations reflect investor continuing appetite for yields above risk-free rates, ongoing M&A activity and optimism for tax and regulatory policy benefits under Trump.

[8] Staff COS Report, p. 40, l. 25 through p. 41, l. 3.

> Notably, share prices remain inflated despite continued positive economic data and Fed rate hikes. [9]

The same report went on to indicate the following about gas utilities specifically:

> **Gas Utilities**: Gas utes [abbreviation] trading at ~22x P/E [estimated EPS for 2019] and ~11x EV/EBITDA [2019 EBITDA], unchanged vs. Q2, inflated we think by ongoing M&A activity and two turns above high end of historic trading ranges. [10]

A 22x P/E ratio is higher than typical even if it is based on the expected EPS over the next 12 months, let alone for 12 months over two years out. As the Commission can see from the above graph, utility P/E ratios are consistently trading at much higher levels than historical averages even during the last seven or so years of low interest rates. In fact, as U.S. Capital Advisors points out, gas utilities are trading a full two turns higher (22x vs. 20x) than the high end of historic trading ranges. Staff's graph above shows they are trading about eight to nine turns higher than they were just five years ago.

Q. Do rating agencies typically view regulated local gas distribution companies as having less business risk than vertically-integrated electric utilities?

A. Yes. Standard & Poor's applies its "Low Volatility" financial metrics table to Spire and Spire Missouri to determine its credit ratings as compared to the "Medial Volatility" table for KCPL and Ameren Missouri. The "Low Volatility" table allows companies to incur more financial risk than companies rated based on the "Medial Volatility" table and still be assigned similar credit ratings. For example, because Spire's FFO/debt ratio was around 15% in 2016 and is expected to be in the 16% to 18% range in the next couple of years, S&P would consider Spire to have an "Intermediate" amount of

[9] Daniel M. Fidell, "Q3'17 Downstream Earnings Preview," U.S. Capital Advisors, October 25, 2017, p. 8.
[10] *Id.* p. 8.

financial risk under the "Low Volatility" table. If Spire's business risk were consistent with that of KCPL and Ameren Missouri, this same FFO/debt ratio would be consistent with a "Significant" amount of financial risk under the "Medial Volatility" table. This justifies a one-to-two notch differential in assigned credit ratings between the two industries.

Additionally, Moody's ratings methodology for electric and gas utilities indicates the following:

> Lower financial metric thresholds have been introduced for certain utilities viewed as having lower business risk, for instance many US natural gas local distribution companies (LDCs) and certain US electric transmission and distribution companies (T&Ds, which lack generation but generally retain some procurement responsibilities for customers).[11]

The consensus market view that gas utility assets are less risky than vertically-integrated electric utility companies reveals itself in average allowed ROEs as well. According to RRA data, average allowed ROEs for natural gas companies have been 27 to 38 basis points lower than allowed ROEs for vertically-integrated electric utilities in 2016 and 2017 (see Schedules 4-1 through 4-4 and Schedules 5-1 through 5-4). This would support the Commission allowing Spire Missouri an ROE below Staff's recommendation of 9.25%.

Q. Are there any market indicators that contradict the general view that gas utilities are typically viewed as less risky than electric utilities?

A. Yes. Equity betas of gas utilities are similar to those of electric utilities. This implies a similar required return for both industries. However, considering there is a considerable amount of market data and investment commentary that supports a lower risk

[11] *Ratings Methodology: Regulated Electric and Gas Utilities,* December 21, 2013, Moody's Investors Service, p. 3.

profile view of gas utilities, Staff still recommends the Commission authorize Spire Missouri a lower allowed ROE than KCPL.

Q. Ms. Ahern claims that you should have relied exclusively on security analysts' estimated five-year CAGR in EPS in your DCF to estimate the cost of equity. She cites several sources to support her claim that this is in fact what investors do. Are you aware of any practical investment commentary from any of the authors of these articles that contradicts Ms. Ahern's testimony?

A. Yes. I discussed this extensively in the Ameren Missouri rate case, Case No. ER-2012-0166, but I will specifically address Ms. Ahern's incorrect interpretation of the John G. Cragg and Burton G. Malkiel study. Ms. Ahern concludes that because Cragg and Malkiel found that security analysts' recommendations affect stock prices, this proves that investors use the security analysts' projected 5-year CAGR in EPS as the constant growth rate in a single-stage DCF analysis. Cragg and Malkiel did not determine this proof in their study nor did they intend for readers to conclude this was their proof.

The conclusion of this academic study was that equity analysts' expectations had a greater influence on stock prices compared to simple extrapolations of historical financial data. Staff believes this conclusion is logical considering the vast amounts of resources dedicated to the discipline of securities analysis. This does not translate into a proof that investors use projected five-year CAGR in EPS as a constant growth rate in the single-stage DCF methodology. In fact, the Cragg and Malkiel did not even use the DCF valuation model when testing their hypothesis regarding the influence of analysts' projections on stock prices. It is more plausible to conclude that, because investors rely on equity analysts' expectations, they rely on their investment recommendations (e.g. buy, sell or hold). Equity analysts'

investment recommendations are based on their assessment of the intrinsic value of a given stock. Analysts' methodologies for estimating a fair price varies, but most at least assess the current price-to-forward earnings ratios both on a consensus basis and on the analysts' own estimates. If the analyst believes the company can grow its earnings faster than the consensus and/or the company deserves a higher price-to-earnings ("p/e") ratio than the consensus, then the analyst will expect a higher return than the consensus. In Staff's experience, this is the primary purpose for providing both absolute EPS forecasts and EPS growth rate forecasts. It allows investors to estimate a potential justified p/e multiple.

Cragg and Malkiel specifically indicated the following in their study:

> We would not argue that these estimates necessarily give an accurate picture of general market expectations. It would, however, seem reasonable to suggest that they are representative of opinions of some of the largest professional investment institutions and that they may not be wholly unrepresentative of more general expectations. **Since investors consult professional investment institutions in forming their own expectations, individuals' expectations may be strongly influenced—and so reflect—those of their advisers.** That several of our participating firms find it worthwhile to publish these projections and provide them to their customers provides prima facie evidence that a certain segment of the market places some reliance on such information in forming its own expectations. Also, insofar as other security analysts and investors follow the same sorts of procedures as those used by our sample analysts in forming expectations, general investors' expectations would resemble those of the analysts. Consequently, these predictions may well serve as acceptable proxies for general expectations and surely seem worthy of detailed analysis. (emphasis added)

Considering the above information, in which the foundation for the study concludes that investors rely and depend on their investment advisors, and therefore, stock prices reflect these expectations, it is imperative for ROR witnesses to understand how these advisors perform their investment analyses rather than using their growth rates without understanding

the context in which they are used. Staff has consistently analyzed investment analysts' research reports and it has *NEVER* seen an investment analyst assume a utility stock will grow at a constant rate consistent with analysts' projected 5-year CAGR in EPS. To assume that investors utilize the information provided by equity analysts in a way that is wholly inconsistent with how the very analysts that provide them use them, is not supported by any evidence.

Equity analysts often use the dividend discount model ("DDM") to estimate a fair price to pay for the stock. The DDM is synonymous with the DCF in utility ratemaking settings. The DCF in utility ratemaking is simply solving for the required return/cost of equity variable. In valuation, the goal is to solve for the fair price of the stock. Consequently, if equity analysts are of value to their clients, then the stock prices will reflect their estimates of future dividends and the required return on these dividends. Consequently, if one accepts the studies that security analysts' expectations influence investors, which is the conclusion made by Malkiel and Cragg, then this means that stock prices reflect the cost of equity used by these very same analysts. Staff's experience has been that these equity discount rates are usually much lower than cost of equity estimates provided by ROR witnesses in utility rate cases. Staff has provided many examples in recent rate cases that indicate equity analysts use equity discount rates in the 6% to 7% range when valuing utility stocks in the current capital market environment, with some estimates even in the 5% range. However, this does not mean that these equity analysts expect commissions to allow an ROE equivalent to the market-implied cost of equity. If allowed ROEs were set equal to the cost of equity, this would cause downward pressure on the stock price of a company whose earnings rely primarily on the regulated utility operations. This is the case because utility stock prices

currently reflect investors' expectations of regulators continuing to allow returns in the 9% range.

Considering the fact that the Cragg and Malkiel study is the foundation for other studies that are often cited to support the use of projected five-year CAGR in EPS as the constant growth rate in the DCF, it is important to understand how at least one of the authors estimated required returns on stocks in his past studies and how he estimated required returns recently. In his May 1979 study, "The Capital Formation Problem in the United States," Malkiel estimated the required returns on the Dow Jones Industrial Average by using Value Line growth rates for the first five years. This growth rate was then reduced over time to that of the expected real growth rate of the economy, which was 3.6% at the time.[12]

In a January 5, 2012, editorial in the *Wall Street Journal,* "Where to Put Your Money in 2012," Burton G. Malkiel provided his opinion on the long-run return expectations for U.S. equities. Malkiel used a fairly simple approach by indicating that earnings and dividends in the market have grown at an approximate 5% rate over the long run. He simply added this long-run growth rate to the current approximate 2% dividend yield on the U.S. stock market to arrive at a long-run return estimate of 7% for the U.S. stock market. If Malkiel believed investors projected returns based on projected five-year CAGR in EPS on the U.S. stock market, then he would have projected a long-run return of approximately 12.3% (2% dividend yield plus equity analysts' projected five-year CAGR in EPS of 10.3% for the S&P 500 at the time). He did not. While Malkiel and Cragg's studies certainly concluded that security analysts' estimates have an impact on share prices, they did *not*

[12] The use of a real GDP growth rate for perpetual growth is consistent with Goldman Sachs' valuation approach discussed in the last rate case, Case No. ER-2011-0028. While the Commission interpreted this to mean that inflation needed to be added to the real GDP growth rate to make the analysis correct, Malkiel made it clear that he purposely chose real GDP as a perpetual growth rate, but also indicated an argument could be made to use nominal GDP.

conclude that investors would assume security analysts' five-year EPS growth rate forecasts are a proxy for perpetual growth.

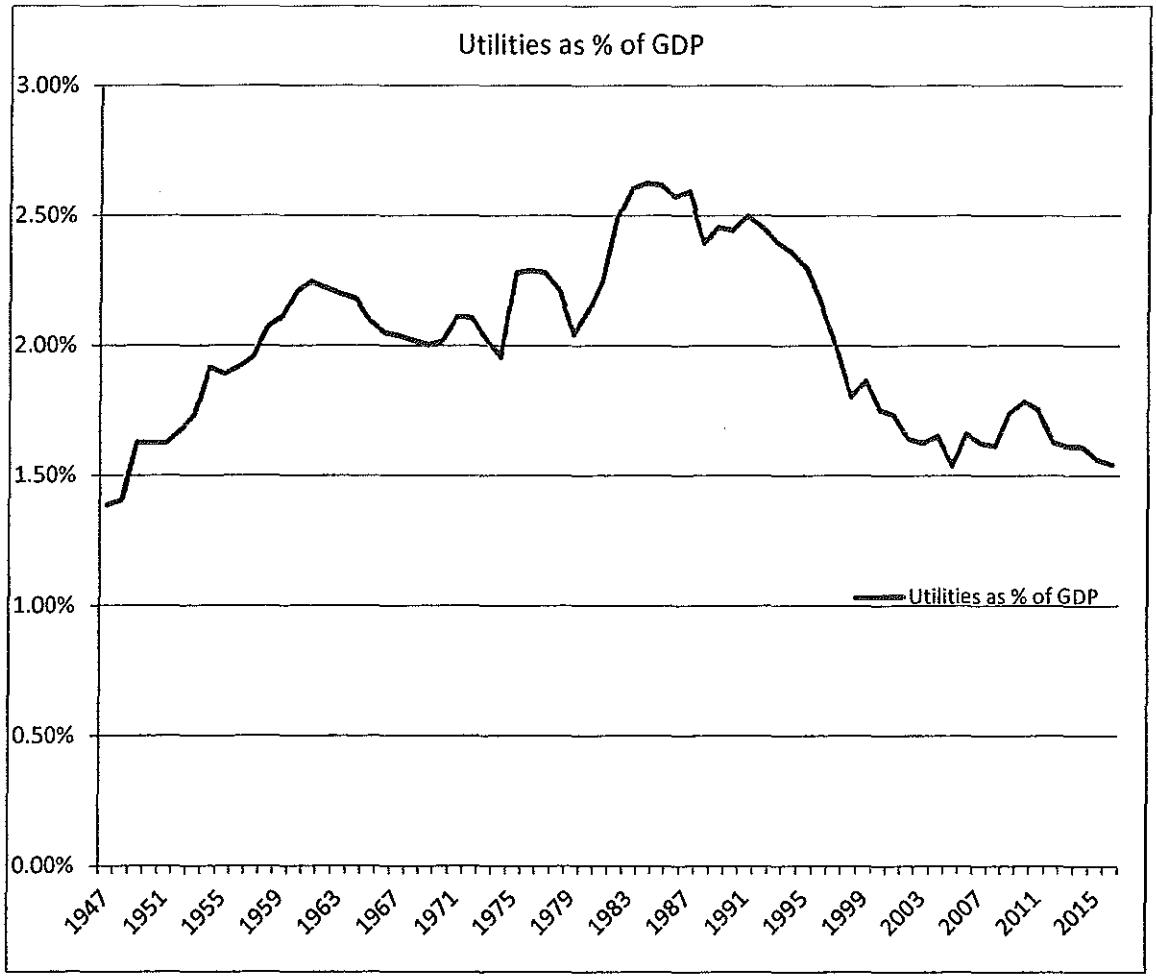
Consequently, Ms. Ahern's testimony, which states that the academic literature supports "the exclusive use of those forecasts in the DCF analyses"[13] is wrong.

Q. On page 27 of her Rebuttal testimony, Ms. Ahern cites information from the Bureau of Economic Analysis to attempt to prove that utilities' growth rates should not be constrained by GDP growth. Have you evaluated the same information Ms. Ahern cites?

A. Yes. Staff evaluated the utility industry's contribution to GDP in detail in Ameren Missouri's rate case in 2012, Case No. ER-2012-0166. For purposes of this case, Staff updated the data it had evaluated to show the results for the last few years. According to Staff's analysis of the utilities industry data available since 1947, as illustrated below and in Schedule 6, the utilities industry made up less than 2% of GDP until the middle 1950s and then gradually increased to just shy of 3% of GDP in the 1980s and 1990s. However, since the late 1990s, utilities contribution to GDP has declined to below 2% and since 2000 has leveled off to between 1.5% and 1.75%.

continued on next page

[13] Ahern Rebuttal, p. 26, ll. 18-21.



Although it appears that utilities may contribute less to GDP going forward, if utilities continue to contribute the same percentage to GDP as they have for the last few years, then it is possible that the aggregate growth of *total value added* may be similar to that of aggregate GDP growth. It is extremely important to understand that this data represents *total value added* to GDP, not just aggregate earnings to shareholders or, more importantly, EPS and/or DPS, which is the primary focus of investors. If utilities are to be able to continue to add value to the economy, they will have to be innovative because the U.S. economy is not nearly as energy-intensive as it once was.

Although the GDP data does show some relationship between aggregate GDP growth and utilities' contribution to aggregate GDP growth, it is interesting to note that the *total value added* from the utilities' sector grew faster than aggregate GDP for a period, but during its decline it grew at a rate slower than GDP. However, the data on utilities contribution to GDP proves that at least over the long-term, the utilities have not been able to sustain growth higher than that of GDP. Otherwise the trend line would still be increasing.

Q. On page 27 of her rebuttal testimony, Ms. Ahern claims that the growth in nominal GDP over the period 1947 to 2016 was 106.22% and the growth in utility value added to GDP for the same period was 119.02%. Do you agree with Ms. Ahern's calculations?

A. No. Ms. Ahern's calculation of growth in the economy for the period 1947 through 2016 implies that U.S. GDP has barely doubled in size over this period. Her growth percentage implies that U.S. nominal GDP has achieved a compound annual growth rate of only 1.05% for this period. Her calculations are inaccurate. U.S. nominal GDP increased by 7,329% over this period for a compound annual growth rate of 6.44%. The utility industry's value added to GDP increased by 8,213% over the same period for a compound annual growth rate of 6.62%. Therefore, although Ms. Ahern's calculations are incorrect, she is still correct that for the period 1947 through 2016, the value added for utilities grew at faster rate than the overall economy.

Q. Does this information prove that utilities, or any other industry for that matter, can grow at a faster rate than the economy in perpetuity?

A. No. When an industry is in its infancy its contribution to GDP is going to start out very low, but as the industry grows through its life-cycle it will grow at a rate faster

than that of the economy; when it matures, it will grow at a rate similar to that of the economy; and when it is at the end of its life-cycle, it will grow at a rate slower than that of the economy. From the period 1984 through 2000, the utility value added to GDP was in a steady state of decline. Since 2000, utilities have grown at a rate similar to that of aggregate GDP. However, with the threat of various alternatives to centralized utility services becoming a reality, as well as an increased focus on conservation and efficiency, it is illogical to expect that utilities will achieve the same higher growth as they achieved for the period 1947 through 1984, which was 9.69% on a compound annual basis as compared to 7.81% for the overall economy.

Although the utilities can grow at rates faster or slower than the economy in short-term periods, it is impossible for any industry, let alone the utility industry, to grow in perpetuity at rate faster than aggregate GDP growth. Otherwise that industry would become the economy itself.

Q. Ms. Ahern claims you should have used projected interest rates in your CAPM rather than current interest rates. How do you respond?

A. Using a projected interest rate in a CAPM analysis would be similar to using projected stock prices in a DCF analysis. The fact of the matter is both current bond prices and stock prices already reflect investors' expectations of future interest rates, whether they are expected to increase or decrease.

Q. Can you provide an example of why using projected interest rates violates the basic tenets of finance and risk arbitrage?

A. Yes. The current yield on U.S. Treasury bonds reflects investors' expectations of the interest rate environment for the foreseeable future. If investors believed that they

could achieve higher yields in the future, then they would not buy long-term bonds today, because they would experience a capital loss when interest rates increase. If an investor purchased a newly issued $1,000, 30-year U.S. Treasury bond today at a coupon rate of 2.9%, this would entitle the investor to semiannual coupon payments of $14.50 for the next 30 years and a return of the $1,000 principal at maturity. If these payments are discounted at the current required rate of 2.90%, then the present value of this stream of payments is exactly equal to the $1,000 initial investment. However, if investors expected the 30-year T-bond rate to increase to 3.65% as Ms. Ahern suggests in her CAPM analysis, then the investor that purchased the 2.90% bond today would see the value of their $1,000 bond investment decline to $865 next year. While it is possible that some investors may be strong enough in their convictions to short long-term treasury bonds because they expect interest rates to increase by this much, it is obvious that the consensus of investors, i.e., the market, are not doing so, otherwise the prices of bonds would have already dropped to levels that would push interest rates up to this higher projected level.

Q. If utility stock investors expected long-term interest rates to increase to these levels in the near future, would they be rational in deciding to purchase utility stocks today considering their current valuation levels?

A. No. Investors purchasing utility stocks at current higher p/e ratios would have to knowingly buy utility stocks with the expectation that they will experience a loss in the value of their investments. Unless an investor thinks they can time the market and sell his/her investment in a utility stock before interest rates increase, then he/she has accepted this interest rate risk and is willing to incur this risk.

Q. ** _____

_____ ? **

A. ** _____

_____

_____

_____

_____

_____

_____

_____ . **

Q. Ms. Ahern criticizes your use of historical realized risk premiums as opposed to providing estimated equity risk premiums based on current market conditions. What is a common approach for determining expected returns on the market?

A. Many market participants will perform a DCF analysis on the S&P 500. This method is explained in the CFA Program curriculum. In fact, in the previously discussed *WSJ* article in which Burton Malkiel provided an estimate of a projected market return, his approach was based on DCF theory. He simply added a long-term normalized growth rate in EPS to the current dividend yield to project the returns on the S&P 500. While this was a simplified approach, it certainly provides a reality check to Ms. Ahern's average projected market return of 11.18% based on adding an average equity risk premium of 7.53% to a projected risk-free rate of 3.65%.

Q. Are you aware of a source that typically provides an estimated equity risk premium on a yearly basis?

A. Yes. Duff & Phelps ("D&P") provides an annual update on its advised equity risk premium for the U.S. markets. D&P characterizes this equity risk premium as *conditional* because it is applied to a normalized risk-free rate of 3.50%. D&P normalizes the risk-free rate due to the fact that long-term interest rates have continued to be very low, which D&P attributed to the aggressive monetary policy actions taken by the Fed over the last several years. In order to determine the inferred equity risk premium based on current interest rates, D&P simply deducted the 9% expected market return from the risk-free rate of 2.79% at the time to arrive at an inferred market risk premium of 6.21%.

Q. ** _____
_____ ? **

A. ** _____
_____
_____
_____
_____
_____
_____
_____ . **

Q. Ms. Ahern takes issue with your "rule of thumb" reasonableness test for various reasons, including that she believes the source is outdated. Is this "rule of thumb" test still part of the Chartered Financial Analyst ("CFA") Program curriculum?

A. Yes. However, the risk premium range applied to a company's own bond yield is now 3% to 5%[14] rather than the 3% to 4% in the 2002 publication that was part of the CFA curriculum when I went through the program. However, being that the "rule of thumb" is based on an evaluation of the broader capital markets in the U.S., it certainly is logical and rational to conclude that the risk premium applied to utility bonds should be no higher than 3% considering the fact that utility stocks are viewed by capital market participants as bond alternatives. Staff has observed utility equity analysts using equity discount rates (i.e. costs of equity) less than 2% over current utility bond yields.

Based on recent over-the-counter ("OTC") trades on a couple of Laclede Gas Company bonds, the current required yield is about 4%. Adding 3% to this bond yield results in a cost of equity estimate of around 7%, which proves that Ms. Ahern's cost of equity estimates do not pass simple reasonableness checks.

Q. Ms. Ahern claims that because Value Line's projected book ROEs on your proxy companies are higher than your recommended allowed ROE for Spire Missouri, your recommendation is inadequate.[15] Does this demonstrate an inadequate allowed ROE?

A. No. First, this is a circular argument because investors' projections for earned ROEs are heavily influenced by the rate setting process. If they believe commissions will lower allowed ROEs to recognize a lower cost of capital environment, then they will lower their expected ROEs. If they expect commissions to hold allowed ROEs constant, then they will project ROEs based on current levels.

[14] Courtois, Y., Drake, P., & Lai, G. (2007), *Cost of Capital*. Reading 36, Corporate Finance and Portfolio Management, CFA Program Curriculum, 2017, Level I, Volume 4.
[15] Ahern Rebuttal, p. 39, l. 21 – p. 41, l. 3.

Second, Ms. Ahern claims that setting an allowed ROE lower than expected returns on other gas companies is inconsistent with the comparable returns principle set out in the *Hope* decision. It is the circularity of setting allowed returns based on other monopoly utilities' earned returns that is problematic for determining a fair return based on current market conditions. This is the appeal of setting the allowed ROE based on insight provided by modern financial models, such as the DCF, that estimate required returns based on economic and capital market information. Because the DCF directly considers stock prices, if utilities' stock prices are bid up due to lower interest rates and/or due to a decline in a utilities' business risks, the investors' changed return requirement will be reflected in the model's results. Because a utility stock changes value based on the investors' evaluation of not only other utilities in the industry, but the risk/return tradeoff compared to all other possible investment alternatives, the modern cost of equity methods are considered consistent with the *Hope* case.

Third, Ms. Ahern's position presumes that the Value Line book ROEs are a reliable benchmark to assess earnings levels on equity invested in operating utility companies. For example, as is the case with Spire, Inc. and Spire Missouri, the book value of the common equity of these companies has been written up to reflect the amount paid for MGE, Alagasco the Energy South gas utilities. In the case of Spire Missouri's acquisition of MGE, the book value of its common equity was increased by $210 million to account for the excess of the purchase price over MGE's identifiable assets. Dividing Spire Missouri's net income for the twelve-months ended September 30, 2017, of $113 million by the higher average book value of equity for 2017, indicates an earned ROE of 10.09% for 2017. However, if

Spire Missouri's net income is divided by the average amount of tangible common equity for 2017, the earned ROE is 12.13%.

Q. Have you already addressed Ms. Ahern's position about the need for a flotation cost adjustment and an additional risk adjustment?

A. Yes. I addressed this in my rebuttal testimony. Please see pages 17-18 of my rebuttal testimony. Ms. Ahern's rebuttal testimony has not caused me to change my position. The Company had expressly agreed to not pursue recovery of transaction costs associated with equity issuances to make its acquisitions.

STAFF RESPONSE TO MICHAEL P. GORMAN'S REBUTTAL TESTIMONY

Q. What issue are you going to address regarding Mr. Gorman's rebuttal testimony?

A. I will address Mr. Gorman's recommended ratemaking capital structure.

Q. What is Mr. Gorman's recommended ratemaking capital structure?

A. Mr. Gorman recommends a ratemaking capital structure that consists of 47.2% common equity and 52.8% long-term debt.

Q. Is Mr. Gorman's recommended capital structure premised on the consolidated holding company, Spire, Inc., or the subsidiary, Spire Missouri?

A. Spire Missouri.

Q. If the Company is also recommending a subsidiary capital structure, why are the common equity ratios so divergent?

A. Mr. Gorman recommends reducing the common equity amount by the Company's $210 million goodwill asset booked when it acquired the MGE assets. Goodwill

is an intangible asset that cannot be tied to plant and equipment or any other tangible assets associated with the MGE acquisition.

Q. Why does Mr. Gorman remove an amount of equity equal to the goodwill asset from his recommended capital structure?

A. Mr. Gorman is attempting to reconcile Spire Missouri's capital structure to its rate base. Because Spire Missouri acquired MGE at a price well above the book value of assets, Spire Missouri could not attribute the entire purchase price to identifiable assets. Consequently, it had to create a goodwill asset for the amount of the purchase price over the identifiable assets.

Because Spire Missouri's rates are set based on the book value of the original investment in the MGE system, the acquisition financing Spire Missouri issued to acquire MGE is not the original capital used to construct and maintain the MGE assets.

Q. In your opinion, should matching capital structure components to rate base be the primary concern in setting a fair and reasonable allowed ROR?

A. No. In fact, due to utility assets, such as MGE, changing hands several times, it is often impractical. The Commission should authorize a debt ratio that is consistent with the amount of debt capacity Spire, Inc.'s regulated utility assets have allowed it to issue. Although Alagasco's and EnergySouth's cash flows contribute to Spire Missouri's cash flows, all of the subsidiaries' cash flows provided Spire, Inc. its debt capacity to leverage these acquisitions. Setting the authorized capital structure based on Spire, Inc.'s consolidated capital structure most closely matches the amount of leverage supported by Spire, Inc.'s regulated subsidiaries.

Q. Should Mr. Gorman's recommended capital structure include short-term debt if the Commission includes gas inventories in rate base?

A. Yes. Staff's Schedule 7 shows the average quarterly percentage of short-term debt in excess of CWIP that Spire Missouri has carried over the period September 30, 2013 through September 30, 2017.

Q. Does your approach for determining the amount of short-term debt to include in the authorized capital structure allow for a direct reconciliation for the proportion of gas inventories as they relate to rate base?

A. No. David Sommerer's surrebuttal testimony addresses the specific pros and cons of rate basing gas inventory as opposed to collecting carrying charges in the PGA/ACA process.

Q. If the Commission were not to allow gas inventories in rate base, how much short-term debt should be included in the allowed capital structure?

A. None. Because Spire Missouri's average balance of gas inventories for the period 2013 through 2016 was approximately 7.75% of Spire Missouri's capital structure over the same period, this would justify the exclusion of all short-term debt for purposes of setting the allowed ROR in the general rate case.

Q. If the Commission adopts Mr. Gorman's recommended capital structure, how can the capital structure be adjusted to include short-term debt?

A. Based on Staff's methodology of including an average short-term debt balance over the full rate cycle, this amount would be added to the total long-term capital in Mr. Gorman's recommended capital structure. This would reduce the common equity ratio to 44.11% and allow for the capital structure to consist of 6.53% short-term debt. However,

this common equity ratio would be below even that carried at Spire, Inc. on a consolidated basis.

Another method would be to simply keep the common equity ratio fixed at 47.20% and replace 6.53% of long-term debt with short-term debt. This would reduce the percentage of long-term debt to 46.27%.

Regardless of the method, the Commission should include short-term debt in the capital structure if gas inventories are included in rate base. This is consistent with the logic the parties agreed to in 2005 when they decided a carrying charge on short-term assets should be based on the cost of short-term capital.

SUMMARY AND CONCLUSIONS

Q. What are the main points the Commission should consider in determining an appropriate capital structure and fair rate of return for Spire Missouri?

A. The Commission should authorize a capital structure that is consistent with Spire Missouri's business risk profile. Spire's debt capacity is attributed to its low-risk regulated utility assets. It is simply unfair for Spire to use the debt capacity of its subsidiaries to lever its returns. If ratepayers are to be charged for a more equity rich capital structure than its parent company, then they should receive the benefit of a credit rating consistent with the risk profile they support. Spire's current financing strategy does not allow this to occur.

The Commission should also recognize that valuation metrics as well as equity and debt investor commentary support authorizing a lower allowed ROE for gas utility assets. Therefore, the Commission should authorize a 9.25% ROE for Spire Missouri.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

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
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

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DAVID MURRAY and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Surrebuttal Testimony; and that the same is true and correct according to his best knowledge and belief..

Further the Affiant sayeth not.

DAVID MURRAY

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 21st day of November, 2017.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

Notary Public

Capital Structure Scenarios as of September 30, 2017 for Laclede and MGE

Spire, Inc. as of September 30, 2017

All dollar amounts are in thousands

Capital Component		Dollar Amount	Percentage of Capital
Common Stock Equity	$	1,991,120	45.56%
Long-Term Debt	$	2,096,378	47.97%
Short-Term Debt	$	282,949	6.47%
Total Capitalization	**$**	**4,370,447**	**100.00%**

Sources: Company workpapers for common equity and long-term debt. Securities and Exchange 10-Q filings for for average short-term debt for the period September 30, 2014 through September 30, 2017. FERC Form 2 information provided through SNL for average CWIP balances for December 31, 2014 through December 31, 2016.

Spire Missouri as of September 30, 2017

All dollar amounts are in thousands

Capital Component		Dollar Amount	Percentage of Capital
Common Stock Equity	$	1,170,952	50.29%
Long-Term Debt	$	990,894	42.55%
Short-Term Debt	$	166,689	7.16%
Total Capitalization	**$**	**2,328,535**	**100.00%**

Sources: Company workpapers for common equity and long-term debt. Company DR responses for average short-term debt and CWIP for the period September 30, 2013 through September 30, 2017.

Weighted Rate of Return
for Laclede Gas and Missouri Gas Energy Division

Spire Capital Structure with Short-Term Debt

Capital Component	Percentage of Capital	Cost	Weighted Rate of Return Using Return on Common Equity of: 9.00%	**9.25%**	9.50%
Common Stock Equity	45.56%	-------	4.10%	**4.21%**	4.33%
Long-Term Debt	47.97%	4.16%	1.99%	**1.99%**	1.99%
Short-Term Debt	6.47%	1.50%	0.10%	**0.10%**	0.10%
	100.00%		6.19%	**6.31%**	6.42%

Spire Missouri Capital structure With Short-Term Debt

Capital Component	Percentage of Capital	Cost	Weighted Rate of Return Using Return on Common Equity of: 9.00%	**9.25%**	9.50%
Common Stock Equity	50.29%	-------	4.53%	**4.65%**	4.78%
Long-Term Debt	42.55%	4.10%	1.75%	**1.75%**	1.75%
Short-Term Debt	7.16%	1.25%	0.09%	**0.09%**	0.09%
	100.00%		6.36%	**6.49%**	6.61%

LAC and MGE
GR-2017-0215 GR-2017-0216

Weighted Rate of Return
for Laclede Gas and Missouri Gas Energy Division

Spire Missouri's Recommended Capital Structure

Capital Component	Percentage of Capital	Cost	**After-Tax ROR**	**Pre-Tax ROR**	Tax Multiplier **1.623076**
Common Stock Equity	54.16%	10.35%	**5.61%**	9.10%	
Long-Term Debt	45.84%	4.12%	**1.89%**	1.89%	
Short-Term Debt	0.00%	0.00%	**0.00%**	0.00%	
	100.00%		**7.50%**	**10.99%**	

Imputed Equity Ratio to Reduce Pre-Tax ROR to that allowed in MGE Rate Case

Capital Component	Percentage of Capital	Cost	**After-Tax ROR**	**Pre-Tax ROR**	Tax Multiplier **1.623076**
Common Stock Equity	**48.14%**	10.35%	4.98%	8.09%	
Long-Term Debt	51.86%	4.12%	2.14%	2.14%	
Short-Term Debt	0.00%	0.00%	0.00%	0.00%	
	100.00%		**7.12%**	**10.2251%**	

LAC and MGE
GR-2017-0215 GR-2017-0216

Imputation of Additional Debt Capacity for Spire Missouri

(in millions)

	9/30/20106
Spire Missouri's Funds From Operations:	$250.5
Spire Missouri's Debt:	$1,109.5
Spire Missouri's FFO/Debt	22.58%
Spire MO Rated based on Spire's FFO/Debt	16%-18%
Debt Capacity based on 17% FFO/Debt	$1,473.8
Additional Debt Capacity (1473.8 - 1109.5):	**$364**

Source: S&P Global Ratings

LAC and MGE
GR-2017-0215 GR-2017-0216

2017 Natural Gas Utility Rate Cases

State	Company	Parent Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)	Zero Cost (Y/N)
AK	ENSTAR Natural Gas Co.	ALA	D-U-16-066	Natural Gas	Distribution	6/1/2016	9/22/2017	Fully Litigated	8.59	11.88	51.81	N
AR	CenterPoint Energy Resources	CNP	D-17-010-FR	Natural Gas	Distribution	4/5/2017	9/6/2017	Settled	4.58	NA	31.02	Y
AZ	Southwest Gas Corp.	SWX	D-G-01551A-16-0107	Natural Gas	Distribution	5/2/2016	4/11/2017	Settled	7.42	9.50	51.70	N
CA	Pacific Gas and Electric Co.	PCG	A-15-09-001 (Gas)	Natural Gas	Distribution	9/1/2015	5/11/2017	Settled	NA	NA	NA	N
CA	San Diego Gas & Electric Co.	SRE	Advice No. 2611-G	Natural Gas	Distribution	9/29/2017	10/26/2017	Settled	7.55	10.20	52.00	N
CA	Southern California Gas Co.	SRE	Advice No. 5192	Natural Gas	Distribution	9/29/2017	10/30/2017	Settled	7.34	10.05	52.00	N
DC	Washington Gas Light Co.	WGL	FC-1137	Natural Gas	Distribution	2/26/2016	3/1/2017	Fully Litigated	7.57	9.25	55.70	N
DE	Delmarva Power & Light Co.	EXC	D-16-0650	Natural Gas	Distribution	5/17/2016	6/6/2017	Settled	NA	9.70	NA	N
GA	Atlanta Gas Light Co.	SO	D-40823	Natural Gas	Distribution	12/1/2016	2/21/2017	Settled	NA	10.55	51.00	N
ID	Intermountain Gas Co.	MDU	C-INT-G-16-2	Natural Gas	Distribution	8/12/2016	4/28/2017	Fully Litigated	7.30	9.50	50.00	N
IN	Northern IN Public Svc Co.	NI	Ca-44403-TDSIC-6	Natural Gas	Limited-Issue Rider	2/28/2017	6/28/2017	Fully Litigated	NA	NA	NA	N
KS	Atmos Energy Corp.	ATO	D-17-ATMG-141-TAR (GSRS)	Natural Gas	Limited-Issue Rider	10/25/2016	2/9/2017	Fully Litigated	NA	NA	NA	N
KS	Black Hills Kansas Gas Utility	BKH	D-17-BHCG-389-TAR (GSRS)	Natural Gas	Limited-Issue Rider	2/21/2017	5/23/2017	Fully Litigated	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2017-00308 (PRP)	Natural Gas	Limited-Issue Rider	7/28/2017	10/27/2017	Fully Litigated	NA	NA	NA	N
KY	Delta Natural Gas Co.		C-2017-00111 (PRP)	Natural Gas	Limited-Issue Rider	2/28/2017	4/27/2017	Fully Litigated	NA	NA	NA	N
KY	Louisville Gas & Electric Co.	PPL	C-2016-00371 (gas)	Natural Gas	Distribution	11/23/2016	6/22/2017	Settled	NA	9.70	NA	N
MD	Columbia Gas of Maryland Inc	NI	C-9447	Natural Gas	Distribution	4/14/2017	9/19/2017	Settled	7.35	9.70	NA	N
MI	Consumers Energy Co.	CMS	C-U-18124	Natural Gas	Distribution	8/1/2016	7/31/2017	Fully Litigated	5.97	10.10	41.27	Y
MO	Missouri Gas Energy	SR	C-GO-2017-0201 (ISRS)	Natural Gas	Limited-Issue Rider	2/3/2017	4/26/2017	Settled	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2016-0332 (ISRS)	Natural Gas	Limited-Issue Rider	9/30/2016	1/18/2017	Fully Litigated	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2017-0202 (ISRS)	Natural Gas	Limited-Issue Rider	2/3/2017	4/26/2017	Settled	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2016-0333 (ISRS)	Natural Gas	Limited-Issue Rider	9/30/2016	1/18/2017	Fully Litigated	NA	NA	NA	N
MT	NorthWestern Corp.	NWE	D-D2016.9.68	Natural Gas	Distribution	9/30/2016	7/20/2017	Settled	6.96	9.55	46.79	N
NJ	Pivotal Utility Holdings Inc.	SO	D-GR-16090826	Natural Gas	Distribution	8/31/2016	6/30/2017	Settled	6.71	9.60	46.00	N
NJ	South Jersey Gas Co.	SJI	D-GR-17010071	Natural Gas	Distribution	1/27/2017	10/20/2017	Settled	6.80	9.60	52.50	N
NY	Consolidated Edison Co. of NY	ED	C-16-G-0061	Natural Gas	Distribution	1/29/2016	1/24/2017	Settled	6.82	9.00	48.00	N
NY	National Fuel Gas Dist Corp.	NFG	C-16-G-0257	Natural Gas	Distribution	4/28/2016	4/20/2017	Fully Litigated	6.92	8.70	42.90	N
OK	CenterPoint Energy Resources	CNP	Ca-PUD201700078	Natural Gas	Distribution	3/15/2017	10/19/2017	Fully Litigated	NA	NA	NA	N
OK	Oklahoma Natural Gas Co	OGS	Ca-PUD201700079	Natural Gas	Distribution	3/15/2017	8/9/2017	Settled	NA	NA	NA	N
OR	Avista Corp.	AVA	D-UG 325	Natural Gas	Distribution	11/30/2016	9/13/2017	Settled	7.35	9.40	50.00	N
PA	UGI Penn Natural Gas	UGI	D-R-2016-2580030	Natural Gas	Distribution	1/19/2017	8/31/2017	Settled	NA	NA	NA	N
SC	Piedmont Natural Gas Co.	DUK	D-2017-7-G	Natural Gas	Distribution	6/15/2017	9/27/2017	Settled	7.60	10.20	53.00	N
SC	South Carolina Electric & Gas	SCG	D-2017-6-G	Natural Gas	Distribution	6/15/2017	9/27/2017	Fully Litigated	8.15	NA	52.16	N
TX	CenterPoint Energy Resources	CNP	D-GUD-10567	Natural Gas	Distribution	11/16/2016	5/23/2017	Settled	8.02	9.60	55.15	N
VA	Columbia Gas of Virginia Inc	NI	C-PUE-2016-00033	Natural Gas	Distribution	4/29/2016	3/17/2017	Settled	NA	NA	NA	N
VA	Virginia Natural Gas Inc.	SO	C-PUR-2017-00052 (SAVE)	Natural Gas	Limited-Issue Rider	5/1/2017	8/21/2017	Fully Litigated	NA	NA	NA	N
VA	Washington Gas Light Co.	WGL	C-PUE-2016-00001	Natural Gas	Distribution	6/30/2016	9/8/2017	Settled	NA	NA	NA	N
WI	Wisconsin Electric Power Co.	WEC	D-5-UR-108 (WEP-Gas)	Natural Gas	Distribution	4/4/2017	8/10/2017	Settled	NA	NA	NA	N
WI	Wisconsin Gas LLC	WEC	D-5-UR-108 (WG)	Natural Gas	Distribution	4/4/2017	8/10/2017	Settled	NA	NA	NA	N
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-125 (Gas)	Natural Gas	Distribution	4/4/2017	8/10/2017	Settled	NA	NA	NA	N

Total Average	9.78	49.06
Average without Limited-Issue Riders	9.78	49.06
Average without Zero Cost Capital Structures	9.76	50.67
Average without LIRs and Zero Cost	9.76	50.67
Average of Dist & Fully Litigated	9.886	48.97
Average of Dist & Fully Litigated w/o Zero Cost	9.83	50.51

Schedule DM-s4-1
Page 1 of 1

LAC and MGE
GR-2017-0215 GR-2017-0216

2016 Natural Gas Utility Rate Cases

State	Company	Parent Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)	Zero Cost (Y/N)
AR	Black Hills Energy Arkansas	BKH	D-15-011-U	Natural Gas	Distribution	4/1/2015	1/28/2016	Settled	5.33	9.40	39.46	Y
AR	CenterPoint Energy Resources	CNP	D-15-098-U	Natural Gas	Distribution	11/10/2015	9/2/2016	Settled	4.53	9.50	30.85	Y
CA	Pacific Gas and Electric Co.	PCG	A-13-12-012 (GT&S)	Natural Gas	Transmission	12/19/2013	12/1/2016	Fully Litigated	NA	NA	NA	N
CA	San Diego Gas & Electric Co.	SRE	A-14-11-003 (Gas)	Natural Gas	Distribution	11/14/2014	6/23/2016	Settled	NA	NA	NA	N
CA	Southern California Gas Co.	SRE	A-14-11-004	Natural Gas	Distribution	11/14/2014	6/23/2016	Settled	NA	NA	NA	N
CO	Public Service Co. of CO	XEL	D-15AL-0135G	Natural Gas	Distribution	3/3/2015	2/16/2016	Fully Litigated	7.33	9.50	56.51	N
DE	Chesapeake Utilities Corp.	CPK	D-15-1734	Natural Gas	Distribution	12/21/2015	12/20/2016	Settled	7.53	9.75	NA	N
IN	Indiana Gas Co.	VVC	Ca-44430-TDSIC-4	Natural Gas	Limited-Issue Rider	4/6/2016	6/29/2016	Fully Litigated	NA	NA	NA	N
IN	Indiana Gas Co.	VVC	Ca-44430-TDSIC-3	Natural Gas	Limited-Issue Rider	10/1/2015	3/30/2016	Fully Litigated	NA	NA	NA	N
IN	Northern IN Public Svc Co.	NI	Ca-44403-TDSIC-5	Natural Gas	Limited-Issue Rider	8/31/2016	12/28/2016	Fully Litigated	NA	NA	NA	N
IN	Northern IN Public Svc Co.	NI	Ca-44403-TDSIC-4	Natural Gas	Limited-Issue Rider	2/29/2016	6/22/2016	Fully Litigated	NA	NA	NA	N
IN	Northern IN Public Svc Co.	NI	Ca-44403-TDSIC-3	Natural Gas	Limited-Issue Rider	8/31/2015	3/30/2016	Fully Litigated	NA	NA	NA	N
IN	Southern Indiana Gas & Elec Co	VVC	Ca-44429-TDSIC-4	Natural Gas	Limited-Issue Rider	4/6/2016	6/29/2016	Fully Litigated	NA	NA	NA	N
IN	Southern Indiana Gas & Elec Co	VVC	Ca-44429-TDSIC-3	Natural Gas	Limited-Issue Rider	10/1/2015	3/30/2016	Fully Litigated	NA	NA	NA	N
KS	Atmos Energy Corp.	ATO	D-16-ATMG-079-RTS	Natural Gas	Distribution	8/13/2015	3/17/2016	Settled	NA	NA	NA	N
KS	Black Hills Kansas Gas Utility	BKH	D-16-BHCG-277-TAR (GSRS)	Natural Gas	Distribution	12/10/2015	2/25/2016	Fully Litigated	NA	NA	NA	N
KS	Kansas Gas Service Co.	OGS	D-16-KGSG-491-RTS	Natural Gas	Distribution	5/2/2016	11/29/2016	Settled	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2016-00262 (PRP)	Natural Gas	Limited-Issue Rider	8/1/2016	11/14/2016	Fully Litigated	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2015-00343	Natural Gas	Distribution	11/23/2015	8/4/2016	Settled	NA	NA	NA	N
KY	Columbia Gas of Kentucky Inc	NI	C-2016-00162	Natural Gas	Distribution	5/27/2016	12/22/2016	Settled	NA	NA	NA	N
KY	Delta Natural Gas Co.		C-2016-00110 (PRP)	Natural Gas	Limited-Issue Rider	3/2/2016	5/19/2016	Fully Litigated	NA	NA	NA	N
MA	Fitchburg Gas & Electric Light	UTL	DPU 15-81	Natural Gas	Distribution	6/16/2015	4/29/2016	Fully Litigated	8.46	9.80	52.17	N
MA	Liberty Utilities (NE Nat Gas)	AQN	DPU 15-75	Natural Gas	Distribution	7/15/2015	2/10/2016	Settled	7.99	9.60	50.00	N
MD	Baltimore Gas and Electric Co.	EXC	C-9331 (update)	Natural Gas	Limited-Issue Rider	7/1/2016	11/23/2016	Settled	NA	NA	NA	N
MD	Baltimore Gas and Electric Co.	EXC	C-9406 (gas)	Natural Gas	Distribution	11/6/2015	6/3/2016	Fully Litigated	7.23	9.65	51.90	N
MD	Columbia Gas of Maryland Inc	NI	C-9332 Phase 3 (IRIS)	Natural Gas	Limited-Issue Rider	11/1/2016	12/14/2016	Fully Litigated	7.53	9.70	54.29	N
MD	Columbia Gas of Maryland Inc	NI	C-9417	Natural Gas	Distribution	4/15/2016	10/27/2016	Settled	NA	NA	NA	N
ME	Maine Natural Gas	IBE	D-2015-00005	Natural Gas	Distribution	3/5/2015	8/1/2016	Settled	7.28	9.55	50.00	N
MI	Consumers Energy Co.	CMS	C-U-17882	Natural Gas	Distribution	7/17/2015	4/21/2016	Settled	NA	NA	NA	N
MI	DTE Gas Co.	DTE	C-U-17999	Natural Gas	Distribution	12/18/2015	12/9/2016	Fully Litigated	5.76	10.10	38.65	Y
MN	CenterPoint Energy Resources	CNP	D-G-008/GR-15-424	Natural Gas	Distribution	8/3/2015	5/5/2016	Fully Litigated	7.07	9.49	50.00	N
MN	Minnesota Energy Resources	WEC	D-G-011/GR-15-736	Natural Gas	Distribution	9/30/2015	9/29/2016	Fully Litigated	6.88	9.11	50.32	N
MO	Liberty Utilities (Midstates)	AQN	C-GO-2016-0206 (ISRS)	Natural Gas	Limited-Issue Rider	2/19/2016	5/11/2016	Fully Litigated	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2016-0197 (ISRS)	Natural Gas	Limited-Issue Rider	2/1/2016	5/19/2016	Fully Litigated	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2016-0196 (ISRS)	Natural Gas	Limited-Issue Rider	2/1/2016	5/19/2016	Fully Litigated	NA	NA	NA	N
NC	Public Service Co. of NC	SCG	D-G-5, Sub 565	Natural Gas	Distribution	3/31/2016	10/28/2016	Settled	7.53	9.70	52.00	N
NJ	New Jersey Natural Gas Co.	NJR	D-GR-15111304	Natural Gas	Distribution	11/13/2015	9/23/2016	Settled	6.90	9.75	52.50	N
NV	Sierra Pacific Power Co.	BRK.A	D-16-06007	Natural Gas	Distribution	6/6/2016	12/22/2016	Settled	5.75	9.50	48.03	N
NY	Brooklyn Union Gas Co.	NG.	C-16-G-0059	Natural Gas	Distribution	1/29/2016	12/15/2016	Settled	6.15	9.00	48.00	N
NY	KeySpan Gas East Corp.	NG.	C-16-G-0058	Natural Gas	Distribution	1/29/2016	12/15/2016	Settled	6.42	9.00	48.00	N
NY	NY State Electric & Gas Corp.	IBE	C-15-G-0284	Natural Gas	Distribution	5/20/2015	6/15/2016	Settled	6.68	9.00	48.00	N
NY	Rochester Gas & Electric Corp.	IBE	C-15-G-0286	Natural Gas	Distribution	5/20/2015	6/15/2016	Settled	7.55	9.00	48.00	N
OK	CenterPoint Energy Resources	CNP	Ca-PUD201600094	Natural Gas	Distribution	3/15/2016	7/19/2016	Settled	NA	NA	NA	N
OK	Oklahoma Natural Gas Co	OGS	Ca-PUD201500213	Natural Gas	Distribution	7/8/2015	1/6/2016	Settled	7.31	9.50	60.50	N
OR	Avista Corp.	AVA	D-UG 288	Natural Gas	Distribution	5/1/2015	2/29/2016	Fully Litigated	7.46	9.40	50.00	N
PA	Columbia Gas of Pennsylvania	NI	D-R-2016-2529660	Natural Gas	Distribution	3/18/2016	10/27/2016	Settled	NA	NA	NA	N
PA	UGI Utilities Inc.	UGI	D-R-2015-2518438	Natural Gas	Distribution	1/19/2016	9/1/2016	Settled	NA	NA	NA	N
SC	Piedmont Natural Gas Co.	DUK	D-2016-7-G	Natural Gas	Distribution	6/15/2016	10/13/2016	Settled	7.68	10.20	53.00	N
SC	South Carolina Electric & Gas	SCG	D-2016-6-G	Natural Gas	Distribution	6/15/2016	10/13/2016	Fully Litigated	8.11	NA	51.35	N
TX	Texas Gas Service Co.	OGS	D-GUD-10526	Natural Gas	Distribution	6/20/2016	11/15/2016	Settled	NA	NA	NA	N
TX	Texas Gas Service Co.	OGS	D-GUD-10506	Natural Gas	Distribution	3/31/2016	9/27/2016	Fully Litigated	7.28	9.50	60.10	N
UT	Questar Gas Co.	D	D-16-057-03	Natural Gas	Distribution	7/1/2016	8/22/2016	Settled	NA	NA	NA	N
VA	Columbia Gas of Virginia Inc	NI	C-PUE-2016-00087 (SAVE)	Natural Gas	Limited-Issue Rider	6/1/2016	12/20/2016	Fully Litigated	NA	NA	NA	N
VA	Washington Gas Light Co.	WGL	C-PUE-2016-00083 (SAVE)	Natural Gas	Limited-Issue Rider	8/1/2016	12/21/2016	Fully Litigated	NA	NA	NA	N
WA	Avista Corp.	AVA	D-UG-160229	Natural Gas	Distribution	2/19/2016	12/15/2016	Fully Litigated	NA	NA	NA	N
WA	Avista Corp.	AVA	D-UG-150205	Natural Gas	Distribution	2/9/2015	1/6/2016	Settled	7.29	9.50	48.50	N
WA	Cascade Natural Gas Corp.	MDU	D-UG-152286	Natural Gas	Distribution	12/1/2015	7/7/2016	Settled	7.35	NA	NA	N
WI	Madison Gas and Electric Co.	MGEE	D-3270-UR-121 (Gas)	Natural Gas	Distribution	4/8/2016	11/9/2016	Fully Litigated	7.88	9.80	57.16	N
WI	Northern States Power Co - WI	XEL	D-4220-UR-122 (Gas)	Natural Gas	Distribution	4/1/2016	10/26/2016	Fully Litigated	NA	NA	NA	N
WI	Wisconsin Power and Light Co	LNT	D-6680-UR-120 (Gas)	Natural Gas	Distribution	5/20/2016	11/18/2016	Settled	7.84	10.00	52.20	N
									Total Average	9.54	50.06	
									Average without Limited-Issue Riders	9.53	49.89	
									Average without Zero Cost Capital Structures	9.52	51.85	
									Average without LIRs and Zero Cost	9.51	51.74	
									Average of Dist & Fully Litigated	9.59	51.82	
									Average of Dist & Fully Litigated w/o Zero Cost	9.53	53.28	

Schedule DM-s4-2
Page 1 of 1

LAC and MGE
GR-2017-0215 GR-2017-0216

2015 Natural Gas Utility Rate Cases

State	Company	Parent Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)	Zero Cost (Y/N)
AK	ENSTAR Natural Gas Co.	ALA	D-U-14-111	Natural Gas	Distribution	9/11/2014	9/29/2015	Settled	NA	NA	NA	N
ID	Avista Corp.	AVA	C-AVU-G-15-01	Natural Gas	Distribution	6/1/2015	12/18/2015	Settled	7.42	9.50	50.00	N
IL	Ameren Illinois	AEE	D-15-0142	Natural Gas	Distribution	1/23/2015	12/9/2015	Settled	7.65	9.60	50.00	N
IL	North Shore Gas Co.	WEC	D-14-0224	Natural Gas	Distribution	2/26/2014	1/21/2015	Fully Litigated	6.26	9.05	50.48	N
IL	Peoples Gas Light & Coke Co.	WEC	D-14-0225	Natural Gas	Distribution	2/26/2014	1/21/2015	Fully Litigated	6.56	9.05	50.33	N
IN	Indiana Gas Co.	VVC	Ca-44430-TDSIC-2	Natural Gas	Limited-Issue Rider	4/1/2015	7/22/2015	Fully Litigated	NA	NA	NA	N
IN	Indiana Gas Co.	VVC	Ca-44430-TDSIC-1	Natural Gas	Limited-Issue Rider	10/1/2014	1/14/2015	Fully Litigated	NA	NA	NA	N
IN	Northern IN Public Svc Co.	NI	Ca-44403-TDSIC-1	Natural Gas	Limited-Issue Rider	8/28/2014	1/28/2015	Fully Litigated	NA	NA	NA	N
IN	Southern Indiana Gas & Elec Co	VVC	Ca-44429-TDSIC-2	Natural Gas	Limited-Issue Rider	4/1/2015	7/22/2015	Fully Litigated	NA	NA	NA	N
IN	Southern Indiana Gas & Elec Co	VVC	Ca-44429-TDSIC-1	Natural Gas	Limited-Issue Rider	10/1/2014	1/14/2015	Fully Litigated	NA	NA	NA	N
KS	Atmos Energy Corp.	ATO	D-15-ATMG-202-TAR (GSRS)	Natural Gas	Limited-Issue Rider	11/14/2014	1/27/2015	Fully Litigated	NA	NA	NA	N
KS	Kansas Gas Service Co.	OGS	D-16-KGSG-104-TAR (GSRS)	Natural Gas	Limited-Issue Rider	8/26/2015	11/5/2015	Fully Litigated	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2015-00272 (PRP)	Natural Gas	Limited-Issue Rider	7/31/2015	9/23/2015	Fully Litigated	NA	NA	NA	N
KY	Delta Natural Gas Co.		C-2015-00066 (PRP)	Natural Gas	Limited-Issue Rider	2/27/2015	4/7/2015	Fully Litigated	NA	NA	NA	N
KY	Louisville Gas & Electric Co.	PPL	C-2014-00372 (gas)	Natural Gas	Distribution	11/26/2014	6/30/2015	Settled	NA	NA	NA	N
MA	Bay State Gas Company	NI	DPU 15-50	Natural Gas	Distribution	4/16/2015	10/7/2015	Settled	7.75	9.55	53.54	N
MA	NSTAR Gas Co.	ES	DPU 14-150	Natural Gas	Distribution	12/17/2014	10/30/2015	Fully Litigated	7.72	9.80	52.10	N
MI	Consumers Energy Co.	CMS	C-U-17643	Natural Gas	Distribution	7/1/2014	1/13/2015	Settled	NA	10.30	NA	N
MI	Michigan Gas Utilities Corp	WEC	C-U-17880	Natural Gas	Distribution	6/22/2015	12/11/2015	Settled	5.51	9.90	52.00	N
MN	Northern States Power Co. - MN	XEL	D-G-002/M-14-336 (GUIC Rider)	Natural Gas	Limited-Issue Rider	8/1/2014	1/27/2015	Fully Litigated	NA	NA	NA	N
MO	Liberty Utilities (Midstates)	AQN	C-GO-2015-0350 (ISRS)	Natural Gas	Limited-Issue Rider	6/30/2015	9/16/2015	Fully Litigated	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2015-0343 (ISRS)	Natural Gas	Limited-Issue Rider	8/3/2015	11/12/2015	Fully Litigated	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2015-0270 (ISRS)	Natural Gas	Limited-Issue Rider	4/17/2015	5/13/2015	Fully Litigated	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2015-0179 (ISRS)	Natural Gas	Limited-Issue Rider	1/30/2015	4/16/2015	NA	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2015-0341 (ISRS)	Natural Gas	Limited-Issue Rider	8/3/2015	11/12/2015	Fully Litigated	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2015-0269 (ISRS)	Natural Gas	Limited-Issue Rider	4/17/2015	5/20/2015	Fully Litigated	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2015-0178 (ISRS)	Natural Gas	Limited-Issue Rider	1/30/2015	4/16/2015	NA	NA	NA	NA	N
NC	Piedmont Natural Gas Co.	DUK	D-G-9, Sub 631, 642 (IMR)	Natural Gas	Limited-Issue Rider	11/16/2015	12/1/2015	Fully Litigated	NA	NA	NA	N
NC	Piedmont Natural Gas Co.	DUK	D-G-9, Sub 642, 659 (IMR)	Natural Gas	Limited-Issue Rider	12/1/2014	1/26/2015	Fully Litigated	NA	NA	NA	N
NH	Liberty Utilities EnergyNorth	AQN	D-DG-14-180	Natural Gas	Distribution	8/1/2014	6/26/2015	Settled	NA	NA	NA	N
NY	Central Hudson Gas & Electric	FTS	C-14-G-0319	Natural Gas	Distribution	7/25/2014	6/17/2015	Settled	6.62	9.00	48.00	N
NY	Orange & Rockland Utils Inc.	ED	C-14-G-0454	Natural Gas	Distribution	11/14/2014	10/15/2015	Settled	7.10	9.00	48.00	N
OK	CenterPoint Energy Resources	CNP	Ca-PUD201500118	Natural Gas	Distribution	3/13/2015	11/4/2015	Fully Litigated	8.64	NA	49.86	N
OR	Avista Corp.	AVA	D-UG-284	Natural Gas	Distribution	9/2/2014	4/9/2015	Settled	7.52	9.50	51.00	N
PA	Columbia Gas of Pennsylvania	NI	D-R-2015-2468056	Natural Gas	Distribution	3/19/2015	12/3/2015	Settled	NA	NA	NA	N
TN	Atmos Energy Corp.	ATO	D-14-00146	Natural Gas	Distribution	11/25/2014	5/11/2015	Settled	7.73	9.80	53.13	N
TX	Atmos Energy Corp.	ATO	D-GUD-10359 (Mid-Tex Division)	Natural Gas	Distribution	5/30/2014	7/28/2015	Settled	NA	NA	NA	N
TX	CenterPoint Energy Resources	CNP	D-GUD-10432	Natural Gas	Distribution	3/27/2015	8/25/2015	Settled	NA	NA	NA	N
VA	Columbia Gas of Virginia Inc	NI	C-PUE-2014-00020	Natural Gas	Distribution	4/30/2014	8/21/2015	Settled	7.35	9.75	42.01	N
WI	Northern States Power Co - WI	XEL	D-4220-UR-121 (Gas)	Natural Gas	Distribution	5/29/2015	12/3/2015	Fully Litigated	7.81	10.00	52.49	N
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-124 (Gas)	Natural Gas	Distribution	4/17/2015	11/19/2015	Fully Litigated	7.80	10.00	50.47	N
WV	Mountaineer Gas Company		C-15-0003-G-42T	Natural Gas	Distribution	1/5/2015	10/13/2015	Settled	7.96	9.75	45.50	N
								Total Average		9.60	49.93	
								Average without Limited-Issue Riders		9.60	49.93	
								Average without Zero Cost Capital Structures		9.60	49.93	
								Average without LIRs and Zero Cost		9.60	49.93	
								Average of Dist & Fully Litigated		9.58	50.96	
								Average of Dist & Fully Litigated w/o Zero Cost		9.58	50.96	

LAC and MGE
GR-2017-0215 GR-2017-0216

2014 Natural Gas Utility Rate Cases

State	Company	Parent Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)	Zero Cost (Y/N)
AR	Arkansas Oklahoma Gas Corp.		D-13-078-U	Natural Gas	Distribution	10/15/2013	7/25/2014	Settled	6.18	9.30	39.94	Y
AR	Black Hills Energy Arkansas	BKH	D-13-079-U	Natural Gas	Distribution	9/9/2013	7/7/2014	Settled	5.71	9.30	41.60	Y
CA	Pacific Gas and Electric Co.	PCG	AP-12-11-009 (Gas)	Natural Gas	Distribution	11/15/2012	8/14/2014	Fully Litigated	NA	NA	NA	N
CA	Southwest Gas Corp.	SWX	A-12-12-024 (SoCal)	Natural Gas	Distribution	12/20/2012	6/12/2014	Fully Litigated	6.83	10.10	55.00	N
CA	Southwest Gas Corp.	SWX	A-12-12-024 (NoCal)	Natural Gas	Distribution	12/20/2012	6/12/2014	Fully Litigated	8.18	10.10	55.00	N
CA	Southwest Gas Corp.	SWX	A-12-12-024 (LkTah)	Natural Gas	Distribution	12/20/2012	6/12/2014	Fully Litigated	8.18	10.10	55.00	N
CO	Atmos Energy Corp.	ATO	D-13AL-0496G	Natural Gas	Distribution	5/8/2013	3/16/2014	Settled	8.07	9.72	52.57	N
CT	CT Natural Gas Corp.	IBE	D-13-06-08	Natural Gas	Distribution	7/8/2013	1/22/2014	Fully Litigated	7.88	9.18	52.52	N
ID	Avista Corp.	AVA	C-AVU-G-14-01	Natural Gas	Distribution	5/30/2014	9/18/2014	Settled	NA	NA	NA	N
KS	Atmos Energy Corp.	ATO	D-14-ATMG-320-RTS	Natural Gas	Distribution	1/9/2014	9/4/2014	Settled	7.75	9.10	53.00	N
KS	Atmos Energy Corp.	ATO	D-14-ATMG-221-TAR (GSRS)	Natural Gas	Limited-Issue Rider	11/12/2013	1/28/2014	Settled	NA	NA	NA	N
KS	Black Hills Kansas Gas Utility	BKH	D-14-BHCG-593-TAR (GSRS)	Natural Gas	Limited-Issue Rider	6/24/2014	10/7/2014	Fully Litigated	NA	NA	NA	N
KS	Black Hills Kansas Gas Utility	BKH	D-14-BHCG-502-RTS	Natural Gas	Distribution	4/29/2014	12/16/2014	Settled	NA	NA	NA	N
KS	Kansas Gas Service Co.	OGS	D-15-KGSG-088-TAR (GSRS)	Natural Gas	Limited-Issue Rider	8/25/2014	11/25/2014	Fully Litigated	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2014-00274 (PRP)	Natural Gas	Limited-Issue Rider	7/31/2014	10/10/2014	Fully Litigated	NA	NA	NA	N
KY	Atmos Energy Corp.	ATO	C-2013-00148	Natural Gas	Distribution	5/13/2013	4/22/2014	Fully Litigated	7.71	9.80	49.16	N
KY	Delta Natural Gas Co.		C-2014-00072 (PRP)	Natural Gas	Limited-Issue Rider	2/28/2014	5/15/2014	Fully Litigated	NA	NA	NA	N
MA	Bay State Gas Company	NI	DPU 13-75	Natural Gas	Distribution	4/16/2013	2/28/2014	Fully Litigated	7.83	9.55	53.68	N
MD	Baltimore Gas and Electric Co.	EXC	C-9355 (gas)	Natural Gas	Distribution	7/2/2014	12/12/2014	Settled	NA	NA	NA	N
MD	Baltimore Gas and Electric Co.	EXC	C-9331 (STRIDE Rider)	Natural Gas	Limited-Issue Rider	8/2/2013	1/29/2014	Fully Litigated	NA	NA	NA	N
MD	Columbia Gas of Maryland Inc	NI	C-9332 Phase 2 (IRIS)	Natural Gas	Limited-Issue Rider	4/1/2014	8/18/2014	Fully Litigated	NA	NA	NA	N
MD	Columbia Gas of Maryland Inc	NI	C-9332 (STRIDE Rider)	Natural Gas	Limited-Issue Rider	8/5/2013	1/31/2014	Fully Litigated	NA	NA	NA	N
MD	Washington Gas Light Co.	WGL	C-9335 (STRIDE Rider)	Natural Gas	Limited-Issue Rider	11/7/2013	6/4/2014	Fully Litigated	NA	NA	NA	N
MN	CenterPoint Energy Resources	CNP	D-G-008/GR-13-316	Natural Gas	Distribution	8/2/2013	5/8/2014	Fully Litigated	7.42	9.59	52.60	N
MN	Minnesota Energy Resources	WEC	D-G-011/GR-13-617	Natural Gas	Distribution	9/30/2013	9/24/2014	Fully Litigated	7.30	9.35	50.31	N
MO	Liberty Utilities (Midstates)	AQN	C-GR-2014-0152	Natural Gas	Distribution	2/6/2014	12/3/2014	Settled	7.22	10.00	45.89	N
MO	Missouri Gas Energy	SR	C-GR-2015-0025 (ISRS)	Natural Gas	Limited-Issue Rider	7/25/2014	10/8/2014	Settled	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GO-2014-0179 (ISRS)	Natural Gas	Limited-Issue Rider	12/6/2013	3/19/2014	Settled	NA	NA	NA	N
MO	Missouri Gas Energy	SR	C-GR-2014-0007	Natural Gas	Distribution	9/16/2013	4/23/2014	Settled	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GR-2015-0026 (ISRS)	Natural Gas	Limited-Issue Rider	7/25/2014	10/15/2014	Settled	NA	NA	NA	N
MO	Spire Missouri Inc.	SR	C-GO-2014-0212 (ISRS)	Natural Gas	Limited-Issue Rider	1/17/2014	4/2/2014	Settled	NA	NA	NA	N
MO	Summit Natural Gas of Missouri	JPM	C-GR-2014-0086	Natural Gas	Distribution	1/2/2014	10/29/2014	Fully Litigated	7.54	10.80	57.00	N
NH	Northern Utilities Inc.	UTL	D-DG-13-086	Natural Gas	Distribution	4/15/2013	4/21/2014	Settled	8.28	9.50	51.76	N
NJ	South Jersey Gas Co.	SJI	D-GR-13111137	Natural Gas	Distribution	11/29/2013	9/30/2014	Settled	7.10	9.75	51.90	N
NY	Consolidated Edison Co. of NY	ED	C-13-G-0031	Natural Gas	Distribution	1/25/2013	2/20/2014	Settled	7.10	9.30	48.00	N
NY	National Fuel Gas Dist Corp.	NFG	C-13-G-0136	Natural Gas	Distribution	4/19/2013	5/8/2014	Settled	7.56	9.10	48.00	N
OK	CenterPoint Energy Resources	CNP	Ca-PUD201400070	Natural Gas	Distribution	3/14/2014	7/3/2014	Settled	8.64	NA	50.00	N
OK	Oklahoma Natural Gas Co	OGS	Ca-PUD201400069	Natural Gas	Distribution	3/14/2014	8/5/2014	Settled	NA	NA	NA	N
OR	Avista Corp.	AVA	D-UG-246	Natural Gas	Distribution	8/15/2013	1/21/2014	Settled	7.47	9.65	48.00	N
PA	Columbia Gas of Pennsylvania	NI	D-R-2014-2406274	Natural Gas	Distribution	3/21/2014	11/13/2014	Settled	NA	NA	NA	N
SC	South Carolina Electric & Gas	SCG	D-2014-6-G	Natural Gas	Distribution	6/13/2014	10/15/2014	Fully Litigated	8.13	NA	53.52	N
TN	Atmos Energy Corp.	ATO	D-14-00081	Natural Gas	Limited-Issue Rider	8/28/2014	12/8/2014	NA	NA	NA	NA	N
UT	Questar Gas Co.	D	D-13-057-05	Natural Gas	Distribution	7/1/2013	2/21/2014	Fully Litigated	7.64	9.85	52.07	N
WA	Avista Corp.	AVA	D-UG-140189	Natural Gas	Distribution	2/4/2014	11/25/2014	Settled	NA	NA	NA	N
WI	Madison Gas and Electric Co.	MGEE	D-3270-UR-120 (Gas)	Natural Gas	Distribution	4/17/2014	11/26/2014	Fully Litigated	7.98	10.20	58.96	N
WI	Wisconsin Electric Power Co.	WEC	D-05-UR-107 (WEP-Gas)	Natural Gas	Distribution	5/30/2014	11/14/2014	Fully Litigated	8.60	10.20	51.90	N
WI	Wisconsin Gas LLC	WEC	D-05-UR-107 (WG)	Natural Gas	Distribution	5/30/2014	11/14/2014	Fully Litigated	8.36	10.30	48.91	N
WI	Wisconsin Power and Light Co	LNT	D-6680-UR-119 (Gas)	Natural Gas	Distribution	4/9/2014	6/6/2014	Fully Litigated	NA	10.40	50.46	N
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-123 (Gas)	Natural Gas	Distribution	4/1/2014	11/6/2014	Fully Litigated	7.95	10.20	50.28	N
WY	Cheyenne Light Fuel Power Co.	BKH	D-30005-182-GR-13	Natural Gas	Distribution	12/2/2013	7/31/2014	Settled	7.98	9.90	54.00	N
										Total Average	9.78	51.11
										Average without Limited-Issue Riders	9.78	51.11
										Average without Zero Cost Capital Structures	9.82	51.90
										Average without LIRs and Zero Cost	9.82	51.90
										Average of Dist & Fully Litigated	9.98	52.90
										Average of Dist & Fully Litigated w/o Zero Cost	9.98	52.90

LAC and MGE
GR-2017-0215 GR-2017-0216

2017 Electric Utility Rate Cases

State	Company	Parent Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)
AR	Oklahoma Gas and Electric Co.	OGE	D-16-052-U	Electric	Vertically Integrated	8/25/2016	5/18/2017	Settled	5.42	9.50	36.38
AZ	Arizona Public Service Co.	PNW	D-E-01345A-16-0036	Electric	Vertically Integrated	6/1/2016	8/15/2017	Settled	7.85	10.00	55.80
AZ	Tucson Electric Power Co.	FTS	D-E-01933A-15-0322	Electric	Vertically Integrated	11/5/2015	2/24/2017	Settled	7.04	9.75	50.03
CA	Pacific Gas and Electric Co.	PCG	Advise No. 3887-G/5148-E	Electric	Vertically Integrated	9/29/2017	10/26/2017	Settled	7.69	10.25	52.00
CA	Pacific Gas and Electric Co.	PCG	A-15-09-001 (Elec)	Electric	Vertically Integrated	9/1/2015	5/11/2017	Settled	NA	NA	NA
CA	San Diego Gas & Electric Co.	SRE	Advice No. 3120-E	Electric	Vertically Integrated	9/29/2017	10/26/2017	Settled	7.55	10.20	52.00
CA	Southern California Edison Co.	EIX	Advice No. 3865-E	Electric	Vertically Integrated	9/29/2017	10/26/2017	Settled	7.61	10.30	48.00
DC	Potomac Electric Power Co.	EXC	FC-1139	Electric	Distribution	6/30/2016	7/24/2017	Fully Litigated	7.46	9.50	49.14
DE	Delmarva Power & Light Co.	EXC	D-16-0649	Electric	Distribution	5/17/2016	5/23/2017	Settled	NA	9.70	NA
FL	Duke Energy Florida LLC	DUK	D-20170183	Electric	Vertically Integrated	8/29/2017	10/25/2017	Settled	NA	NA	NA
FL	Gulf Power Co.	SO	D-160186-EI	Electric	Vertically Integrated	10/12/2016	4/4/2017	Settled	NA	10.25	NA
FL	Tampa Electric Co.	EMA	D-20170210	Electric	Vertically Integrated	9/27/2017	11/6/2017	NA	NA	10.25	NA
HI	Maui Electric Company Ltd	HE	D-2014-0318	Electric	Vertically Integrated	12/30/2014	8/4/2017	NA	NA	NA	NA
ID	Idaho Power Co.	IDA	C-IPC-E-16-24	Electric	Limited-Issue Rider	10/21/2016	5/31/2017	Settled	NA	9.50	NA
IN	Indianapolis Power & Light Co.	AES	Ca-44893	Electric	Vertically Integrated	12/22/2016	2/24/2017	NA	NA	NA	NA
IN	Northern IN Public Svc Co.	NI	Ca-44733-TDSIC-1	Electric	Limited-Issue Rider	6/30/2016	1/25/2017	Settled	NA	NA	NA
KS	Empire District Electric Co.	AQN	D-17-EPDE-101-RTS	Electric	Vertically Integrated	9/16/2016	1/10/2017	NA	NA	NA	NA
KS	Kansas City Power & Light	GXP	D-17-KCPE-201-RTS	Electric	Vertically Integrated	11/9/2016	6/6/2017	Settled	NA	NA	NA
KS	Westar Energy Inc.	WR	D-17-WSEE-147-RTS	Electric	Vertically Integrated	10/28/2016	6/8/2017	Settled	NA	NA	NA
KY	Kentucky Utilities Co.	PPL	C-2016-00370	Electric	Vertically Integrated	11/23/2016	6/22/2017	Settled	NA	9.70	NA
KY	Louisville Gas & Electric Co.	PPL	C-2016-00371 (elec.)	Electric	Vertically Integrated	11/23/2016	6/22/2017	Settled	NA	9.70	NA
MD	Delmarva Power & Light Co.	EXC	C-9424	Electric	Distribution	7/20/2016	2/15/2017	Fully Litigated	6.74	9.60	49.10
MD	Potomac Electric Power Co.	EXC	C-9443	Electric	Distribution	3/24/2017	10/20/2017	Fully Litigated	7.43	9.50	50.15
MI	Consumers Energy Co.	CMS	C-U-17990	Electric	Vertically Integrated	3/1/2016	2/28/2017	Fully Litigated	5.94	10.10	40.75
MI	DTE Electric Co.	DTE	C-U-18014	Electric	Vertically Integrated	2/1/2016	1/31/2017	Fully Litigated	5.55	10.10	37.49
MN	Northern States Power Co. - MN	XEL	D-E-002/GR-15-826	Electric	Vertically Integrated	11/2/2015	5/11/2017	Settled	7.08	9.20	52.50
MN	Otter Tail Power Co.	OTTR	D-E-017/GR-15-1033	Electric	Vertically Integrated	2/16/2016	3/2/2017	Fully Litigated	7.51	9.41	52.50
MO	Kansas City Power & Light	GXP	C-ER-2016-0285	Electric	Vertically Integrated	7/1/2016	5/3/2017	Fully Litigated	7.43	9.50	49.20
MO	Union Electric Co.	AEE	C-ER-2016-0179	Electric	Vertically Integrated	7/1/2016	3/8/2017	Settled	NA	NA	NA
ND	MDU Resources Group Inc.	MDU	C-PU-16-666	Electric	Vertically Integrated	10/14/2016	6/16/2017	Settled	7.36	9.65	51.40
NH	Liberty Utilities Granite St	AQN	D-DE-16-383	Electric	Distribution	4/29/2016	4/12/2017	Settled	7.64	9.40	50.00
NH	Unitil Energy Systems Inc.	UTL	D-DE-16-384	Electric	Distribution	4/29/2016	4/20/2017	Settled	8.34	9.50	50.97
NJ	Atlantic City Electric Co.	EXC	D-ER-17030308	Electric	Distribution	3/30/2017	9/22/2017	Settled	7.60	9.60	50.47
NJ	Rockland Electric Company	ED	D-ER-16050428	Electric	Distribution	5/13/2016	2/22/2017	Settled	7.47	9.60	49.70
NM	Southwestern Public Service Co	XEL	C-16-00269-UT	Electric	Vertically Integrated	11/1/2016	4/19/2017	Fully Litigated	NA	NA	NA
NY	Consolidated Edison Co. of NY	ED	C-16-E-0060	Electric	Distribution	1/29/2016	1/24/2017	Settled	6.82	9.00	48.00
OK	Oklahoma Gas and Electric Co.	OGE	Ca-PUD201500273	Electric	Vertically Integrated	12/18/2015	3/20/2017	Fully Litigated	7.69	9.50	53.31
PA	Metropolitan Edison Co.	FE	D-R-2016-2537349	Electric	Distribution	4/28/2016	1/19/2017	Settled	NA	NA	NA
PA	Pennsylvania Electric Co.	FE	D-R-2016-2537352	Electric	Distribution	4/28/2016	1/19/2017	Settled	NA	NA	NA
PA	Pennsylvania Power Co.	FE	D-R-2016-2537355	Electric	Distribution	4/28/2016	1/19/2017	Settled	NA	NA	NA
PA	West Penn Power Co.	FE	D-R-2016-2537359	Electric	Distribution	4/28/2016	1/19/2017	Settled	NA	NA	NA
TX	Cross Texas Transmission		D-45636--CTT	Electric	Transmission	12/6/2016	1/17/2017	Settled	NA	NA	NA
TX	Electric Transmission Texas		D-45636-ETT	Electric	Transmission	1/4/2017	1/12/2017	Settled	6.39	9.60	40.00
TX	Oncor Electric Delivery Co.		D-46957	Electric	Distribution	3/17/2017	9/28/2017	Settled	7.44	9.80	42.50
TX	Sharyland Utilities		D-45414	Electric	Distribution	4/29/2016	9/28/2017	Settled	NA	NA	NA
TX	Southwestern Public Service Co	XEL	D-45524	Electric	Vertically Integrated	2/16/2016	1/26/2017	Settled	NA	NA	NA
VA	Appalachian Power Co.	AEP	C-PUE-2016-00090 (VM-RAC)	Electric	Limited-Issue Rider	11/17/2016	7/17/2017	Fully Litigated	NA	NA	NA
VA	Appalachian Power Co.	AEP	C-PUE-2016-00089 (RAC-EE)	Electric	Limited-Issue Rider	8/31/2016	5/11/2017	Settled	NA	NA	NA
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00136 (Rider U)	Electric	Limited-Issue Rider	12/1/2016	9/1/2017	Fully Litigated	6.81	9.40	50.23
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00111 (Rider DSM)	Electric	Limited-Issue Rider	10/3/2016	6/1/2017	Fully Litigated	6.74	9.40	49.49
VA	Virginia Electric & Power Co.	D	PUE-2016-00112 (Rider BW)	Electric	Limited-Issue Rider	10/3/2016	6/30/2017	Fully Litigated	7.24	10.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00113 (Rider US-2)	Electric	Limited-Issue Rider	10/3/2016	6/30/2017	Fully Litigated	6.74	9.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00059 (Rider B)	Electric	Limited-Issue Rider	6/1/2016	2/27/2017	Fully Litigated	7.73	11.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00060 (Rider GV)	Electric	Limited-Issue Rider	6/1/2016	2/27/2017	Fully Litigated	6.74	9.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00061 (Rider R)	Electric	Limited-Issue Rider	6/1/2016	2/27/2017	Fully Litigated	7.24	10.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00062 (Rider S)	Electric	Limited-Issue Rider	6/1/2016	2/27/2017	Fully Litigated	7.24	10.40	49.49
VA	Virginia Electric & Power Co.	D	C-PUE-2016-00063 (Rider W)	Electric	Limited-Issue Rider	6/1/2016	2/27/2017	Fully Litigated	7.24	10.40	49.49
WI	Wisconsin Electric Power Co.	WEC	D-5-UR-108 (WEP-Elec)	Electric	Vertically Integrated	4/4/2017	8/10/2017	Settled	NA	NA	NA
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-125 (Elec)	Electric	Vertically Integrated	4/4/2017	8/10/2017	Settled	NA	NA	NA
WY	MDU Resources Group Inc.	MDU	D-20004-117-ER-16	Electric	Vertically Integrated	6/10/2016	1/18/2017	Settled	7.25	9.45	50.99

Average Vertically Integrated	9.82
Average Distribution	9.52
Average Vertically Integrated & Fully Litigated	9.72
Average Vertically Integrated & T&D	9.71
Average of All	9.79

Schedule DM-s5-1

LAC and MGE
GR-2017-0215 GR-2017-0216
2016 Electric Utility Rate Cases

State	Company	Parent Company Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)
AR	Entergy Arkansas Inc.	ETR	D-16-036-FR	Electric	Vertically Integrated	7/22/2016	12/6/2016	Settled	NA	NA	NA
AR	Entergy Arkansas Inc.	ETR	D-15-015-U	Electric	Vertically Integrated	4/24/2015	2/23/2016	Settled	4.52	9.75	28.46
AZ	UNS Electric Inc.	FTS	D-E-04204A-15-0142	Electric	Vertically Integrated	5/5/2015	8/18/2016	Fully Litigated	7.22	9.50	52.83
CA	Liberty Utilities CalPeco Ele	AQN	A-15-05-008	Electric	Vertically Integrated	5/1/2015	12/1/2016	Settled	7.51	10.00	52.50
CA	San Diego Gas & Electric Co.	SRE	A-14-11-003 (Elec)	Electric	Vertically Integrated	11/14/2014	6/23/2016	Settled	NA	NA	NA
CO	Black Hills Colorado Electric	BKH	D-16AL-0326E	Electric	Vertically Integrated	5/3/2016	12/19/2016	Fully Litigated	7.43	9.37	52.39
CT	United Illuminating Co.		D-16-06-04	Electric	Distribution	7/1/2016	12/14/2016	Fully Litigated	7.08	9.10	50.00
FL	Florida Power & Light Co.	NEE	D-160021-EI	Electric	Vertically Integrated	3/15/2016	11/29/2016	Settled	NA	10.55	NA
GA	Georgia Power Co.	SO	D-32539 (2017 Update)	Electric	Limited-Issue Rider	11/1/2016	12/20/2016	NA	NA	NA	NA
HI	Hawaiian Electric Co.	HE	D-2013-0373	Electric	Vertically Integrated	6/27/2014	12/23/2016	Fully Litigated	NA	NA	NA
ID	Avista Corp.	AVA	C-AVU-E-16-03	Electric	Vertically Integrated	5/26/2016	12/28/2016	Settled	7.58	9.50	50
IL	Ameren Illinois	AEE	D-16-0262	Electric	Distribution	4/15/2016	12/6/2016	Fully Litigated	7.28	8.64	50
IL	Commonwealth Edison Co.	EXC	D-16-0259	Electric	Distribution	4/13/2016	12/6/2016	Fully Litigated	6.71	8.64	45.62
IN	Indianapolis Power & Light Co.	AES	Ca-44576	Electric	Vertically Integrated	12/29/2014	3/16/2016	Fully Litigated	6.51	9.85	37.33
IN	Northern IN Public Svc Co.	NI	Ca-44688	Electric	Vertically Integrated	10/1/2015	7/18/2016	Settled	6.74	9.98	47.42
IN	Northern IN Public Svc Co.	NI	Ca-44371-TDSIC-2	Electric	Limited-Issue Rider	2/26/2015	1/28/2016	NA	NA	NA	NA
MA	Fitchburg Gas & Electric Light	UTL	DPU 15-80	Electric	Distribution	6/16/2015	4/29/2016	Fully Litigated	8.46	9.8	52.17
MA	Massachusetts Electric Co.	NG.	DPU-15-155	Electric	Distribution	11/6/2015	9/30/2016	Fully Litigated	7.58	9.9	50.7
MD	Baltimore Gas and Electric Co.	EXC	C-9406 (elec)	Electric	Distribution	11/6/2015	6/3/2016	Fully Litigated	7.28	9.75	51.9
MD	Potomac Electric Power Co.	EXC	C-9418	Electric	Distribution	4/19/2016	11/15/2016	Fully Litigated	7.49	9.55	49.55
ME	Emera Maine	EMA	D-2015-00360	Electric	Distribution	3/21/2016	12/19/2016	Fully Litigated	7.45	9.00	49
MI	Upper Peninsula Power Co.		C-U-17895	Electric	Vertically Integrated	9/18/2015	9/8/2016	Fully Litigated	7.47	10.00	53.49
MO	Empire District Electric Co.	AQN	C-ER-2016-0023	Electric	Vertically Integrated	10/16/2015	8/10/2016	Settled	NA	NA	NA
MO	KCP&L Greater Missouri Op Co	GXP	C-ER-2016-0156 (MPS/L&P)	Electric	Vertically Integrated	2/23/2016	9/28/2016	Settled	NA	NA	NA
MT	MDU Resources Group Inc.	MDU	D-D2015.6.51	Electric	Vertically Integrated	6/25/2015	3/25/2016	Settled	NA	NA	NA
NC	Virginia Electric & Power Co.	D	D-E-22, Sub 532	Electric	Vertically Integrated	3/31/2016	12/22/2016	Settled	7.37	9.90	51.75
ND	MDU Resources Group Inc.	MDU	C-PU-15-703	Electric	Limited-Issue Rider	10/26/2015	1/5/2016	Settled	7.95	10.50	50.27
NJ	Atlantic City Electric Co.	EXC	D-ER-16030252	Electric	Distribution	3/22/2016	8/24/2016	Settled	7.64	9.75	49.48
NJ	Jersey Cntrl Power & Light Co.	FE	D-ER-16040383	Electric	Distribution	4/28/2016	12/12/2016	Settled	7.47	9.6	45
NM	El Paso Electric Co.	EE	C-15-00127-UT	Electric	Vertically Integrated	5/11/2015	6/8/2016	Fully Litigated	7.67	9.48	49.29
NM	Public Service Co. of NM	PNM	C-15-00261-UT	Electric	Vertically Integrated	8/27/2015	9/28/2016	Fully Litigated	7.71	9.58	49.61
NM	Southwestern Public Service Co	XEL	C-15-00296-UT	Electric	Vertically Integrated	10/16/2015	8/10/2016	Settled	NA	NA	NA
NV	Sierra Pacific Power Co.	BRK.A	D-16-06006	Electric	Vertically Integrated	6/6/2016	12/22/2016	Settled	6.65	9.60	48.03
NY	NY State Electric & Gas Corp.		C-15-E-0283	Electric	Distribution	5/20/2015	6/15/2016	Settled	6.68	9.00	48.00
NY	Rochester Gas & Electric Corp.		C-15-E-0285	Electric	Distribution	5/20/2015	6/15/2016	Settled	7.55	9	48
OK	Public Service Co. of OK	AEP	Ca-PUD201500208	Electric	Vertically Integrated	7/1/2015	11/10/2016	Fully Litigated	6.94	9.50	44.00
SC	Duke Energy Progress LLC	DUK	D-2016-227-E	Electric	Vertically Integrated	7/1/2016	12/7/2016	Settled	7.21	10.10	53.00
SC	South Carolina Electric & Gas	SCG	D-2016-224-E	Electric	Limited-Issue Rider	6/27/2016	10/19/2016	Fully Litigated	8.24	NA	51.35
TN	Kingsport Power Company	AEP	D-16-00001	Electric	Vertically Integrated	1/4/2016	8/9/2016	Settled	6.18	9.85	40.25
TX	El Paso Electric Co.	EE	D-44941	Electric	Vertically Integrated	8/10/2015	8/18/2016	Settled	NA	NA	NA
VA	Appalachian Power Co.	AEP	C-PUE-2016-00024 (G-RAC)	Electric	Limited-Issue Rider	3/31/2016	12/30/2016	Settled	7.3	10	47.22
VA	Appalachian Power Co.	AEP	C-PUE-2016-00038	Electric	Limited-Issue Rider	3/31/2016	10/6/2016	Fully Litigated	NA	9.4	NA
VA	Kentucky Utilities Co.	PPL	C-PUE-2015-00063	Electric	Vertically Integrated	6/30/2015	2/2/2016	Settled	NA	NA	NA
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00114 (Rider U)	Electric	Limited-Issue Rider	12/1/2015	8/22/2016	Settled	NA	NA	NA
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00102 (Rider BW)	Electric	Limited-Issue Rider	10/1/2015	6/30/2016	Fully Litigated	7.4	10.6	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00104 (Rider US-2)	Electric	Limited-Issue Rider	10/1/2015	6/30/2016	Fully Litigated	6.9	9.6	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00075 (Rider GV)	Electric	Limited-Issue Rider	7/1/2015	3/29/2016	Fully Litigated	6.9	9.6	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00058 (Rider B)	Electric	Limited-Issue Rider	6/1/2015	2/29/2016	Fully Litigated	7.9	11.6	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00059 (Rider R)	Electric	Limited-Issue Rider	6/1/2015	2/29/2016	Fully Litigated	7.40	10.60	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00060 (Rider S)	Electric	Limited-Issue Rider	6/1/2015	2/29/2016	Fully Litigated	7.40	10.60	49.99
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00061 (Rider W)	Electric	Limited-Issue Rider	6/1/2015	2/29/2016	Fully Litigated	7.40	10.60	49.99
WA	Avista Corp.	AVA	D-UE-160228	Electric	Vertically Integrated	2/19/2016	12/15/2016	Fully Litigated	NA	NA	NA
WA	Avista Corp.	AVA	D-UE-150204	Electric	Vertically Integrated	2/9/2015	1/6/2016	Settled	7.29	9.50	48.50
WA	PacifiCorp	BRK.A	D-UE-152253	Electric	Vertically Integrated	11/25/2015	9/1/2016	Fully Litigated	7.30	9.50	49.10
WI	Madison Gas and Electric Co.	MGEE	D-3270-UR-121 (Elec)	Electric	Vertically Integrated	4/8/2016	11/9/2016	Fully Litigated	7.89	9.80	57.16
WI	Northern States Power Co - WI	XEL	D-4220-UR-122 (Elec)	Electric	Vertically Integrated	4/1/2016	10/26/2016	Fully Litigated	NA	NA	NA
WI	Wisconsin Power and Light Co	LNT	D-6680-UR-120 (Elec)	Electric	Vertically Integrated	5/20/2016	11/18/2016	Settled	7.91	10.00	52.20
WV	Appalachian Power Co.	AEP	C-16-0239-E-ENEC	Electric	Limited-Issue Rider	3/1/2016	6/30/2016	Settled	NA	NA	NA
WV	Monongahela Power Co.	FE	C-16-1121-E-ENEC	Electric	Limited-Issue Rider	8/16/2016	12/9/2016	Settled	NA	NA	NA

Average Vertically Integrated	9.77
Average Distribution	9.31
Average Vertically Integrated & Fully Litigated	9.62
Average Vertically Integrated & T&D	9.60
Average of All	9.77

Schedule DM-s5-2

LAC and MGE
GR-2017-0215 GR-2017-0216

2015 Electric Utility Rate Cases

State	Company	Parent Company Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)
CA	Southern California Edison Co.	EIX	A-13-11-003	Electric	Vertically Integrated	11/12/2013	11/5/2015	Fully Litigated	NA	NA	NA
CO	Public Service Co. of CO	XEL	D-14AL-0660E	Electric	Vertically Integrated	6/17/2014	2/24/2015	Settled	7.55	9.83	56.00
GA	Georgia Power Co.	SO	D-32539 (2016 Update)	Electric	Limited-Issue Rider	10/30/2015	12/22/2015	Fully Litigated	NA	NA	NA
ID	Avista Corp.	AVA	C-AVU-E-15-05	Electric	Vertically Integrated	6/1/2015	12/18/2015	Settled	7.42	9.50	50.00
ID	PacifiCorp	BRK.A	C-PAC-E-15-09	Electric	Limited-Issue Rider	5/27/2015	12/23/2015	Settled	NA	NA	NA
IL	Ameren Illinois	AEE	D-15-0305	Electric	Distribution	4/24/2015	12/9/2015	Fully Litigated	7.65	9.14	50.00
IL	Commonwealth Edison Co.	EXC	D-15-0287	Electric	Distribution	4/15/2015	12/9/2015	Fully Litigated	7.05	9.14	46.25
KS	Kansas City Power & Light	GXP	D-15-KCPE-116-RTS	Electric	Vertically Integrated	1/2/2015	9/10/2015	Fully Litigated	7.44	9.30	50.48
KS	Westar Energy Inc.	WR	D-15-WSEE-115-RTS	Electric	Vertically Integrated	3/2/2015	9/24/2015	Settled	NA	NA	NA
KY	Kentucky Power Co.	AEP	C-2014-00396	Electric	Vertically Integrated	12/23/2014	6/22/2015	Settled	NA	NA	NA
KY	Kentucky Utilities Co.	PPL	C-2014-00371	Electric	Vertically Integrated	11/26/2014	6/30/2015	Settled	NA	NA	NA
KY	Louisville Gas & Electric Co.	PPL	C-2014-00372 (elec.)	Electric	Vertically Integrated	11/26/2014	6/30/2015	Settled	NA	NA	NA
MI	Consumers Energy Co.	CMS	C-U-17735	Electric	Vertically Integrated	12/5/2014	11/19/2015	Fully Litigated	6.18	10.3	41.5
MI	DTE Electric Co.	DTE	C-U-17767	Electric	Vertically Integrated	12/19/2014	12/11/2015	Fully Litigated	5.7	10.30	38.03
MI	Wisconsin Public Service Corp.	WEC	C-U-17669	Electric	Vertically Integrated	10/17/2014	4/23/2015	Settled	6.01	10.2	NA
MN	Northern States Power Co. - MN	XEL	D-E-002/GR-13-868	Electric	Vertically Integrated	11/4/2013	3/26/2015	Fully Litigated	7.37	9.72	52.5
MO	Empire District Electric Co.	AQN	C-ER-2014-0351	Electric	Vertically Integrated	8/29/2014	6/24/2015	Settled	NA	NA	NA
MO	Kansas City Power & Light	GXP	C-ER-2014-0370	Electric	Vertically Integrated	10/30/2014	9/2/2015	Fully Litigated	7.53	9.5	50.09
MO	Union Electric Co.	AEE	C-ER-2014-0258	Electric	Vertically Integrated	7/3/2014	4/29/2015	Fully Litigated	7.6	9.53	51.76
MS	Mississippi Power Co.	SO	D-2015-UN-0060	Electric	Limited-Issue Rider	5/15/2015	12/3/2015	Settled	6.68	9.23	49.73
MS	Mississippi Power Co.	SO	D-2013-UN-0014	Electric	Limited-Issue Rider	1/25/2013	7/7/2015	Fully Litigated	NA	NA	NA
NJ	Jersey Cntrl Power & Light Co.	FE	D-ER-12111052	Electric	Distribution	11/30/2012	3/18/2015	Fully Litigated	8.01	9.75	50.00
NM	Public Service Co. of NM	PNM	C-14-00332-UT	Electric	Vertically Integrated	12/11/2014	5/13/2015	Fully Litigated	NA	NA	NA
NM	Southwestern Public Service Co	XEL	C-15-00139-UT	Electric	Vertically Integrated	6/8/2015	6/24/2015	Fully Litigated	NA	NA	NA
NY	Central Hudson Gas & Electric	FTS	C-14-E-0318	Electric	Distribution	7/25/2014	6/17/2015	Settled	6.62	9.00	48.00
NY	Consolidated Edison Co. of NY	ED	C-15-E-0050/C-13-E-0030 (Ext)	Electric	Distribution	1/30/2015	6/17/2015	Settled	6.91	9.00	48.00
NY	Orange & Rockland Utils Inc.	ED	C-14-E-0493	Electric	Distribution	11/14/2014	10/15/2015	Settled	7.10	9.00	48.00
OK	Public Service Co. of OK	AEP	Ca-PUD201300217	Electric	Vertically Integrated	1/17/2014	4/14/2015	Settled	7.63	NA	NA
OR	Portland General Electric Co.	POR	D-UE-294	Electric	Vertically Integrated	2/12/2015	12/15/2015	Settled	7.51	9.6	50
PA	Metropolitan Edison Co.	FE	D-R-2014-2428745	Electric	Distribution	8/4/2014	4/9/2015	Settled	NA	NA	NA
PA	PECO Energy Co.	EXC	D-R-2015-2468981	Electric	Distribution	3/27/2015	12/17/2015	Settled	NA	NA	NA
PA	Pennsylvania Electric Co.	FE	D-R-2014-2428743	Electric	Distribution	8/4/2014	4/9/2015	Settled	NA	NA	NA
PA	Pennsylvania Power Co.	FE	D-R-2014-2428744	Electric	Distribution	8/4/2014	4/9/2015	Settled	NA	NA	NA
PA	PPL Electric Utilities Corp.	PPL	D-R-2015-2469275	Electric	Distribution	3/31/2015	11/19/2015	Settled	NA	NA	NA
PA	West Penn Power Co.	FE	D-R-2014-2428742	Electric	Distribution	8/4/2014	4/9/2015	Settled	NA	NA	NA
SC	South Carolina Electric & Gas	SCG	D-2015-160-E	Electric	Limited-Issue Rider	5/29/2015	9/23/2015	Fully Litigated	8.57	NA	52.66
SD	Black Hills Power Inc.	BKH	D-EL14-026	Electric	Vertically Integrated	3/31/2014	3/2/2015	Settled	7.76	NA	NA
SD	Northern States Power Co. - MN	XEL	D-EL14-058	Electric	Vertically Integrated	6/23/2014	6/15/2015	Settled	7.22	NA	NA
SD	NorthWestern Corp.	NWE	D-EL14-106	Electric	Vertically Integrated	12/19/2014	10/29/2015	Settled	7.24	NA	NA
TN	Kingsport Power Company	AEP	D-15-00093	Electric	Vertically Integrated	9/28/2015	12/15/2015	NA	NA	NA	NA
TX	Cross Texas Transmission		D-43950	Electric	Transmission	12/23/2014	5/1/2015	Settled	6.11	9.6	40
TX	Entergy Texas Inc.	ETR	D-44704	Electric	Vertically Integrated	6/12/2015	7/20/2015	Fully Litigated	NA	NA	NA
TX	Southwestern Public Service Co	XEL	D-43695	Electric	Vertically Integrated	12/8/2014	12/17/2015	Fully Litigated	7.88	9.70	51.00
VA	Virginia Electric & Power Co.	D	C-PUE-2015-00027	Electric	Vertically Integrated	3/31/2015	11/23/2015	Fully Litigated	NA	NA	NA
VA	Virginia Electric & Power Co.	D	C-PUE-2014-00103 (Rider BW)	Electric	Limited-Issue Rider	10/31/2014	4/21/2015	Settled	7.88	11	52.03
VA	Virginia Electric & Power Co.	D	C-PUE-2014-00050 (Rider B)	Electric	Limited-Issue Rider	6/16/2014	3/12/2015	Settled	8.4	12	52.03
VA	Virginia Electric & Power Co.	D	C-PUE-2014-00052 (Rider R)	Electric	Limited-Issue Rider	6/16/2014	3/12/2015	Settled	7.88	11	52.03
VA	Virginia Electric & Power Co.	D	C-PUE-2014-00051 (Rider S)	Electric	Limited-Issue Rider	6/16/2014	3/12/2015	Settled	7.88	11	52.03
VA	Virginia Electric & Power Co.	D	C-PUE-2014-00042 (Rider W)	Electric	Limited-Issue Rider	5/30/2014	2/18/2015	Settled	7.88	11.00	52.03
WA	PacifiCorp	BRK.A	D-UE-140762	Electric	Vertically Integrated	5/1/2014	3/25/2015	Fully Litigated	7.30	9.50	49.10
WI	Northern States Power Co - WI	XEL	D-4220-UR-121 (Elec)	Electric	Vertically Integrated	5/29/2015	12/3/2015	Fully Litigated	7.81	10.00	52.49
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-124 (Elec)	Electric	Vertically Integrated	4/17/2015	11/19/2015	Fully Litigated	8.24	10.00	50.47
WV	Appalachian Power Co.	AEP	C-14-1152-E-42T	Electric	Vertically Integrated	6/30/2014	5/26/2015	Fully Litigated	7.38	9.75	47.16
WV	Monongahela Power Co.	FE	C-14-0702-E-42T	Electric	Vertically Integrated	4/30/2014	2/4/2015	Settled	NA	NA	NA
WY	PacifiCorp	BRK.A	D-20000-469-ER-15	Electric	Vertically Integrated	3/2/2015	12/30/2015	Fully Litigated	7.41	9.50	51.44
WY	PacifiCorp	BRK.A	D-20000-446-ER-14	Electric	Vertically Integrated	3/3/2014	1/23/2015	Fully Litigated	7.41	9.50	51.43
									Average Vertically Integrated	9.75	
									Average Distribution	9.17	
									Average Vertically Integrated & Fully Litigated	9.74	
									Average Vertically Integrated & T&D	9.60	
									Average of All	9.85	

LAC and MGE
GR-2017-0215 GR-2017-0216

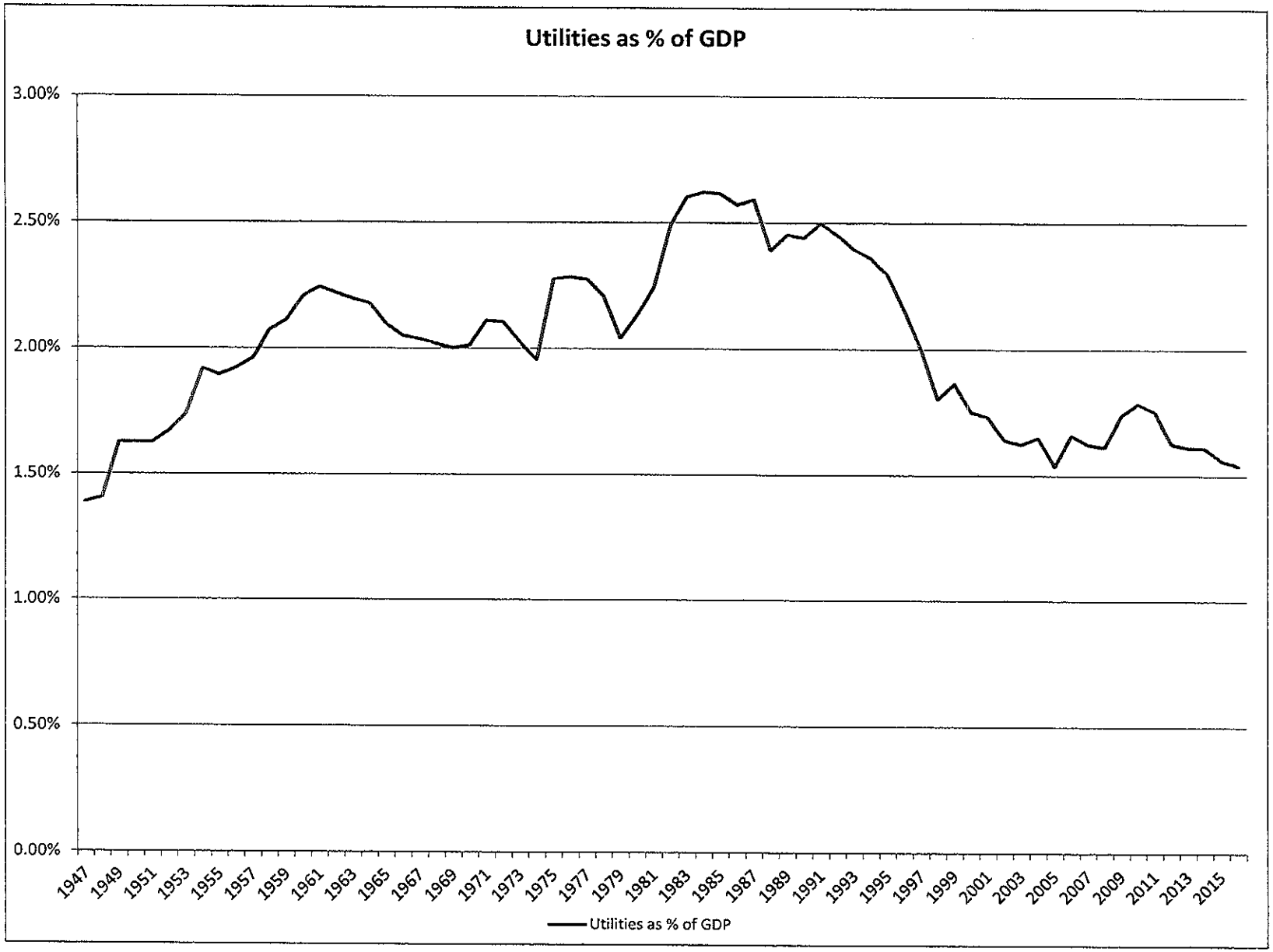
2014 Electric Utility Rate Cases

State	Company	Parent Company Ticker	Docket	Rate Case Service Type	Case Type	Date Filed	Date Complete	Decision Type	Return on Original Cost Rate (%)	Return on Equity (%)	Common Equity to Total Capital (%)
AZ	Arizona Public Service Co.	PNW	D-E-01345A-11-0224 (Four Cnrs)	Electric	Limited-Issue Rider	12/30/2013	12/18/2014	Fully Litigated	6.09	NA	NA
CA	Pacific Gas and Electric Co.	PCG	AP-12-11-009 (Elec)	Electric	Vertically Integrated	11/15/2012	8/14/2014	Fully Litigated	NA	NA	NA
CO	Black Hills Colorado Electric	BKH	D-14AL-0393E	Electric	Vertically Integrated	4/30/2014	12/18/2014	Fully Litigated	7.55	9.83	49.83
CT	Connecticut Light & Power Co.	ES	D-14-05-06	Electric	Distribution	6/9/2014	12/17/2014	Fully Litigated	7.31	9.17	50.38
DC	Potomac Electric Power Co.	EXC	FC-1116	Electric	Limited-Issue Rider	6/17/2014	11/12/2014	Fully Litigated	NA	NA	NA
DC	Potomac Electric Power Co.	EXC	FC-1103-2013-E	Electric	Distribution	3/8/2013	3/26/2014	Fully Litigated	7.65	9.40	49.19
DE	Delmarva Power & Light Co.	EXC	D-13-115	Electric	Distribution	3/22/2013	4/2/2014	Fully Litigated	7.26	9.70	49.22
FL	Florida Public Utilities Co.	CPK	D-140025-EI	Electric	Vertically Integrated	4/28/2014	9/15/2014	Settled	NA	10.25	NA
GA	Georgia Power Co.	SO	D-32539 (2015 Update)	Electric	Limited-Issue Rider	10/31/2014	12/18/2014	Fully Litigated	NA	NA	NA
IA	MidAmerican Energy Co.	BRK.A	D-RPU-2013-0004	Electric	Vertically Integrated	5/17/2013	2/28/2014	Settled	NA	NA	NA
ID	Avista Corp.	AVA	C-AVU-E-14-05	Electric	Vertically Integrated	5/30/2014	9/18/2014	Settled	NA	NA	NA
IL	Ameren Illinois	AEE	D-14-0317	Electric	Distribution	4/17/2014	12/10/2014	Fully Litigated	8.08	9.25	51
IL	Commonwealth Edison Co.	EXC	D-14-0312	Electric	Distribution	4/16/2014	12/10/2014	Fully Litigated	7.06	9.25	45.77
IL	MidAmerican Energy Co.	BRK.A	D-14-0066	Electric	Vertically Integrated	12/16/2013	11/6/2014	Fully Litigated	7.14	9.56	51.73
IN	Northern IN Public Svc Co.	NI	Ca-44371-TDSIC-1	Electric	Limited-Issue Rider	8/28/2014	11/25/2014	Fully Litigated	NA	NA	NA
KS	Kansas City Power & Light	GXP	D-14-KCPE-272-RTS	Electric	Vertically Integrated	12/9/2013	7/17/2014	Settled	NA	NA	NA
LA	Entergy Louisiana LLC	ETR	D-UD-13-01	Electric	Vertically Integrated	3/28/2013	7/10/2014	Settled	NA	9.95	NA
MA	Fitchburg Gas & Electric Light	UTL	DPU 13-90	Electric	Distribution	7/15/2013	5/30/2014	Fully Litigated	8.28	9.7	47.78
MD	Baltimore Gas and Electric Co.	EXC	C-9355 (elec)	Electric	Distribution	7/2/2014	12/12/2014	Settled	NA	NA	NA
MD	Potomac Electric Power Co.	EXC	C-9336	Electric	Distribution	12/4/2013	7/2/2014	Fully Litigated	7.61	9.62	49.18
ME	Central Maine Power Co.		D-2013-00168	Electric	Distribution	5/1/2013	7/29/2014	Settled	7.06	9.45	50
ME	Emera Maine	EMA	D-2013-00443	Electric	Distribution	12/6/2013	6/30/2014	Settled	NA	9.55	49.00
MS	Entergy Mississippi Inc.	ETR	D-2014-UN-0132	Electric	Vertically Integrated	6/10/2014	12/11/2014	Settled	7.51	10.07	NA
MT	NorthWestern Corp.	NWE	D-D2013.12.85	Electric	Limited-Issue Rider	12/20/2013	9/25/2014	Fully Litigated	6.91	9.80	48.00
ND	Northern States Power Co. - MN	XEL	C-PU-12-813	Electric	Vertically Integrated	12/18/2012	2/26/2014	Settled	7.45	9.75	52.56
NH	Liberty Utilities Granite St	AQN	D-DE-13-063	Electric	Distribution	3/29/2013	3/17/2014	Settled	7.92	9.55	55.00
NJ	Atlantic City Electric Co.	EXC	D-ER-14030245	Electric	Distribution	3/14/2014	8/20/2014	Settled	7.75	9.75	49.83
NJ	Rockland Electric Company	ED	D-ER-13111135	Electric	Distribution	11/27/2013	7/23/2014	Settled	7.83	9.75	50.35
NM	Southwestern Public Service Co	XEL	C-12-00350-UT	Electric	Vertically Integrated	12/12/2012	3/26/2014	Fully Litigated	8.26	9.96	53.89
NV	Nevada Power Co.	BRK.A	D-14-05004	Electric	Vertically Integrated	5/2/2014	10/9/2014	Settled	8.09	9.80	48.17
NY	Consolidated Edison Co. of NY	ED	C-13-E-0030	Electric	Distribution	1/25/2013	2/20/2014	Settled	7.05	9.20	48.00
OR	Portland General Electric Co.	POR	D-UE-283	Electric	Vertically Integrated	2/13/2014	12/4/2014	Settled	7.56	9.68	50.00
PA	Duquesne Light Co.		D-R-2013-2372129	Electric	Distribution	8/2/2013	4/23/2014	Settled	NA	NA	NA
SC	South Carolina Electric & Gas	SCG	D-2014-187-E	Electric	Limited-Issue Rider	5/30/2014	9/24/2014	Fully Litigated	8.53	NA	53.52
TX	Entergy Texas Inc.	ETR	D-41791	Electric	Vertically Integrated	9/25/2013	5/16/2014	Settled	NA	9.8	NA
TX	Lone Star Transmission LLC	NEE	D-42469	Electric	Transmission	5/15/2014	9/11/2014	Settled	6.37	9.60	45.00
TX	Southwestern Public Service Co	XEL	D-42004	Electric	Vertically Integrated	1/7/2014	12/18/2014	Settled	NA	NA	NA
UT	PacifiCorp	BRK.A	D-13-035-184	Electric	Vertically Integrated	1/3/2014	8/29/2014	Settled	7.57	9.8	51.43
VA	Appalachian Power Co.	AEP	C-PUE-2014-00026	Electric	Vertically Integrated	3/31/2014	11/26/2014	Fully Litigated	6.88	9.7	42.89
VA	Virginia Electric & Power Co.	D	C-PUE-2013-00122 (Rider BW)	Electric	Limited-Issue Rider	11/1/2013	7/8/2014	Fully Litigated	7.95	11	50
VA	Virginia Electric & Power Co.	D	C-PUE-2013-00061 (Rider S)	Electric	Limited-Issue Rider	6/14/2013	3/14/2014	Fully Litigated	NA	11	50
VA	Virginia Electric & Power Co.	D	C-PUE-2013-00060 (Rider B)	Electric	Limited-Issue Rider	6/14/2013	3/14/2014	Fully Litigated	NA	12	50
VA	Virginia Electric & Power Co.	D	C-PUE-2013-00065 (Rider W)	Electric	Limited-Issue Rider	5/31/2013	2/28/2014	Fully Litigated	7.95	11.00	50.00
VT	Green Mountain Power Corp.		D-8190, 8191	Electric	Vertically Integrated	12/20/2013	8/25/2014	Settled	7.46	9.60	50.00
WA	Avista Corp.	AVA	D-UE-140188	Electric	Vertically Integrated	2/4/2014	11/25/2014	Settled	NA	NA	NA
WI	Madison Gas and Electric Co.	MGEE	D-3270-UR-120 (Elec)	Electric	Vertically Integrated	4/17/2014	11/26/2014	Fully Litigated	7.96	10.2	58.96
WI	Northern States Power Co - WI	XEL	D-4220-UR-120 (Elec)	Electric	Vertically Integrated	5/30/2014	12/12/2014	Fully Litigated	NA	10.2	52.54
WI	Wisconsin Electric Power Co.	WEC	D-05-UR-107 (WEP-Elec)	Electric	Vertically Integrated	5/30/2014	11/14/2014	Fully Litigated	8.6	10.2	51.9
WI	Wisconsin Power and Light Co	LNT	D-6680-UR-119 (Elec)	Electric	Vertically Integrated	4/9/2014	6/6/2014	Fully Litigated	NA	10.40	50.46
WI	Wisconsin Public Service Corp.	WEC	D-6690-UR-123 (Elec)	Electric	Vertically Integrated	4/1/2014	11/6/2014	Fully Litigated	8.39	10.20	50.28
WY	Cheyenne Light Fuel Power Co.	BKH	D-20003-132-ER-13	Electric	Vertically Integrated	12/2/2013	7/31/2014	Settled	7.98	9.90	54.00
										9.94	
										9.49	
										10.03	
										9.75	
										9.91	

Average Vertically Integrated
Average Distribution
Average Vertically Integrated & Fully Litigated
Average Vertically Integrated & T&D
Average of All

Schedule DM-s5-4
Page 1 of 1

LAC and MGE
GR-2017-0215 GR-2017-0216



LAC and MGE
GR-2017-0215 GR-2017-0216
Spire Missouri Quarterly Capital Structures

	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017	Average
Not Adjusted																		
Percentage																		
Common Equity	49.12%	49.18%	52.73%	52.35%	49.06%	47.68%	52.42%	52.92%	49.92%	49.52%	52.85%	53.54%	50.49%	49.45%	51.43%	52.30%	49.87%	50.87%
Long-Term Debt	44.79%	43.84%	41.45%	41.18%	39.33%	37.50%	40.01%	40.34%	38.87%	37.64%	38.94%	39.72%	38.00%	36.39%	35.95%	36.04%	41.48%	39.50%
Short-Term Debt	6.09%	6.98%	5.82%	6.47%	11.61%	14.83%	7.58%	6.75%	11.21%	12.84%	8.22%	6.74%	11.52%	14.16%	12.61%	11.66%	8.65%	9.63%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Net of CWIP																		
Percentage																		
Common Equity	49.78%	49.79%	53.72%	53.61%	50.24%	48.86%	53.89%	54.60%	51.04%	50.46%	53.80%	54.72%	51.77%	50.87%	53.12%	54.49%	51.53%	52.13%
Long-Term Debt	45.39%	44.38%	42.23%	42.17%	40.28%	38.43%	41.13%	41.62%	39.74%	38.35%	39.64%	40.60%	38.96%	37.43%	37.13%	37.55%	42.86%	40.46%
Short-Term Debt	4.83%	5.82%	4.06%	4.22%	9.48%	12.71%	4.98%	3.78%	9.22%	11.19%	6.56%	4.68%	9.28%	11.70%	9.75%	7.97%	5.60%	7.40%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: SNL Financial