Exhibit No.:	
Issue(s):	Rate of Return (ROR)/ Capital Structure
Witness/Type of Exhibit:	Murray/Direct
Sponsoring Party:	Public Counsel
Case No.:	GR-2022-0179

DIRECT TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

SPIRE MISSOURI, INC.

CASE NO. GR-2022-0179

** _____ **
Denotes Confidential Information that has been redacted

August 31, 2022

PUBLIC

TABLE OF CONTENTS

DIRECT TESTIMONY

OF

DAVID MURRAY

SPIRE MISSOURI INC.

FILE NO. GR-2022-0179

Q. Please state your name and business address.

A. My name is David Murray and my business address is P.O. Box 2230, Jefferson City, Missouri 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Utility Regulatory Manager.

Q. On whose behalf are you testifying?

A. I am testifying on the behalf of the OPC.

Q. What it the purpose of your testimony?

A. To recommend a fair and reasonable rate of return ("ROR") for purposes of setting Spire Missouri Inc.'s ("Spire Missouri") revenue requirement.

Q. What experience, knowledge, and education qualify you to sponsor ROR testimony in this case?

A. Please see the attached Schedule DM-D-1 for my qualifications as well as a summary of the cases in which I have sponsored testimony on ROR and other financial issues.

Q. What aspects of ROR will you address?

A. I will address a fair and reasonable allowed return on common equity ("ROE") and a fair and reasonable capital structure.

Q. Is this rate case unique as it relates to the proximity to Spire Missouri's last rate case, Case No. GR-2021-0108?

A. Yes. This rate case was filed within a few months of the conclusion of Spire Missouri's last rate case, not because Spire Missouri experienced an increased cost of service, but rather because Spire Missouri disagreed with the Commission's decision on two primary issues in the 2021 rate case – (1) capitalization of overheads and (2) the Commission's authorized rate of return ("ROR").

Q. Which issue do you address in your testimony?

A. A fair and reasonable authorized ROR.

Q. What updated test year did the Commission order for purposes of this rate case?

A. May 31, 2021.

Q. Did the Commission order this updated test year to be trued-up?

A. Yes. The Commission ordered a true-up period through September 30, 2022.

Q. Is the ordered updated test year in this case the same as the ordered true-up period in the 2021 rate case?

A. Yes. Parties that sponsored true-up testimony in the 2021 rate case considered financial information through May 31, 2021 for purposes of supporting their final capital structure and resulting ROR recommendations

Q. Will your direct testimony in this case differ from your true-up testimony in the 2021 rate case?

A. Yes, but only as it relates to providing further analysis, support and explanation for my recommended ratemaking capital structure through the true-up date as well as an explanation of the approach taken to implement the Commission's capital structure decision in its Report and Order ("R&O") in Case No. GR-2021-0108. Specifically, I will

explain the extent to which implementation of the Commission's decision on capital structure relied on Spire Missouri's sponsored evidence in the 2021 rate case.

Q. Will you analyze and discuss current capital market conditions to determine whether the Commission should reconsider its recently awarded ROE of 9.37% to Spire Missouri?

A. Yes. Although my capital structure recommendation is based on my consideration of Spire Inc.'s and Spire Missouri's financial statements through the ordered updated test year of May 31, 2021, which is ordered to be trued-up through September 30, 2022, my recommended ROE is based on my analysis of recent capital market conditions. Therefore, I will start my testimony by reviewing and analyzing current capital market conditions and providing my opinion as to whether this evidence supports a different ROE than that which the Commission just authorized Spire Missouri in November 2021.

Q. What is your main conclusion after analyzing Spire Missouri's specific financial situation as well as the current state of capital markets?

A. The Commission set Spire Missouri's current authorized ROE of 9.37% in Case No. GR-2021-0108 less than a year ago.[1] The Commission heard evidence related to capital market conditions through the summer of 2021. While utilities' cost of long-term debt have increased since this period, the expansion in price-to-earnings (P/E)[2] ratios for natural gas local distribution companies ("LDC") implies their COE is lower. This is likely due to several factors, which include the fact that, at the time of Spire Missouri's 2021 rate case, LDCs had been trading at a discount to regulated electric utilities and the broader utility industry had been trading at a discount to the S&P 500. Factors impacting the current valuation levels of LDCs include private equity funds' completed and pending acquisitions of local natural gas distribution systems, as well as the defensive characterstics of LDC

[1] Case No. GR-2021-0108, Amended Report and Order, November 12, 2021.
[2] Price-to-earnings ratios are measured many different ways with earnings being the primary cause of differing indicated ratios. The most common measurements of earnings are typically either the last-twelve-months ("LTM") of earnings or the projected next-twelve-months ("NTM") of earnings. Because stock prices reflect forward expectations, it is typically preferred to determine the ratio based on forward earnings expectations. Unless specifically noted otherwise in my testimony, the P/E ratios I provide are premised on projected NTM of earnings.

P

stocks, which become relatively more attractive investments when economic growth is expected to slow.

As it relates specifically to Spire Inc., its stock price was negatively impacted by the Commission's decision in Spire Missouri's last rate case, Case No. GR-2021-0108. While Spire Inc.'s negative stock price reaction would appear to support an opinion that Spire Inc.'s cost of equity has increased because of regulatory uncertainty, I will present evidence that shows that Spire Inc.'s guidance to investors causes higher than reasonable expectations for regulatory outcomes. Additionally, if earnings levels are lowered to more reasonable expectations, then a reduction in a company's stock price simply reflects this lower earnings level, not an increase in risk to earnings after the earnings level is rebased. I will analyze, interpret and explain this information to attempt to provide the Commission with as much useful information as possible for it to set a fair and reasonable allowed ROR for Spire Missouri.

As it relates to a fair and reasonable ratemaking capital structure to set Spire Missouri's authorized ROR, I will present information consistent with my position in Spire Missouri's last rate case, which was to set Spire Missouri's authorized ROR based on Spire Inc.'s capital structure ratios, which recognizes the amount of financial risk (i.e. use of debt) consistent with Spire Missouri's low-risk regulated utility assets.

My testimony will also discuss the Commission's capital structure decision in Case No. GR-2021-0108, the evidence relied on to implement the Commission's decision and investors' expectations and reaction to the Commission's decision.

Q. What is your recommended overall ROR?

A. Based on my recommended capital structure of 45% common equity, 48% long-term debt and 7% short-term debt, and applying the following returns to each component respectively, 9.25%, 3.99% and 2.7%, I recommend an overall after-tax ROR of 6.27% (*see* Schedule DM-D-2). The remainder of my testimony supports and explains why my recommendation is fair and reasonable.

P

FAIR RETURN ON COMMON EQUITY

Q. How did you determine the approach you would take to estimate a fair and reasonable allowed ROE for purposes of this case?

A. I reconciled the principles established in *Hope* and *Bluefield*[3] with the modern financial models used to estimate the COE. While setting the allowed ROE based on the COE is at least theoretically sufficient to allow a company to attract capital in efficient markets, the fact that average allowed ROEs have been set higher than rational COE estimates also needs to be considered when determining a fair and reasonable allowed ROE. In fact, this Commission has set a "zone of reasonableness standard" [4] for purposes of setting an allowed ROE with the starting point for this zone of reasonableness being a recent industry average allowed ROE. Considering these principles, I first estimate Spire Missouri's current COE, then compare Spire Missouri's current COE to the COE last year when the Commission awarded Spire Missouri an ROE of 9.37% in Case No. GR-2021-0108. I also consider the longer-term trend in the changes to LDCs' and electric utilities' P/E ratios.

Q. Based on your analysis, what is your estimate of Spire Missouri's current COE?

A. Spire Missouri's current COE is in the range of 7.25% to 7.5%.

Q. How does this compare to your COE estimates in Spire Missouri's 2021 rate case?

A. It is within my COE range of 6.5% to 7.5% in the 2021 rate case.

Q. Why are you estimating a narrower range in this case?

A. I have more confidence in my COE estimates utilizing the multi-stage DCF, which directly incorporates utility stock prices into the methodology. Utility stocks have not been trading consistent with their long-term relationship to long-term interest rates. Over the long-term, utility stocks typically have a strong inverse correlation to long-term interest rates.

[3] *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943); *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, *43 S.Ct. 675, 67 L.Ed. 1176* (1923).
[4] *State ex rel. Missouri Gas Energy v. Public Service Commission,* 186 S.W.3d 376, 383 (Mo App. W.D. 2005)

P

However, lately, utility stock prices have had a positive correlation to interest rates. Consequently, while it is certainly true that the utility industry's cost of debt has increased, the same is not true as it relates to the utility industry's cost of equity. In fact, according to my multi-stage DCF analysis, which does not incorporate interest rates into the method, Spire Missouri's COE has actually declined since the 2021 rate case.

Q. Based on your analysis and awareness of capital market conditions, investor expectations, and recent average allowed ROEs for utilities, what do you consider to be a fair and reasonable allowed ROE for Spire Missouri?

A. 9.00% to 9.25%. Based on the average gas utility authorized ROE of 9.33% for the first six months of 2022, and consideration for the fact that LDC stock valuation levels have improved since last year, I consider an authorized ROE of no higher than 9.25% to be consistent with market conditions for the LDC industry.

Q. How did you inform yourself for purposes of determining the best methods and approaches to use to estimate Spire Missouri's COE?

A. In addition to the information I had already analyzed in Spire Missouri's 2021 rate case, I reviewed Spire Inc.'s Board of Directors ("BOD") strategic financing and investment considerations for the period through April 2022. Other than a few exceptions, as compared to the last rate case, Spire Missouri has been much more cooperative with providing OPC access to this information.

I also reviewed investment industry research covering Spire Inc., the general utility industry, and the LDC industry since January 1, 2021. I also generally considered the research I performed for purposes of Spire Missouri's 2021 rate case. This research provided me insight as to the types of methods/models investors typically use to determine fair prices to pay for utility stocks. After performing this research, I estimated Spire Missouri's COE by performing a company-specific COE analysis on Spire Inc. as well as a COE analysis on a proxy group of companies generally categorized as being in the LDC industry.

Q. What specific COE models did you use?

A. I used a multi-stage discounted cash flow ("DCF") method, with specific emphasis on equity analysts' consensus estimated dividends and the modeled growth of dividends. When the DCF method is applied to dividends as the proxy for cash flow, it is more specifically defined as the dividend discount model ("DDM"). I also applied the Capital Asset Pricing Model ("CAPM") to both Spire Inc. and the LDC proxy group. Finally, I performed simple and logical reasonableness checks to test the reasonableness of my COE estimates. These reasonableness checks recognize the basic characteristics of utility stocks, mainly being that they are perceived as yield/income investments by the investment community. One such reasonableness check is a straight-forward bond-yield-plus-risk-premium method discussed in the Chartered Financial Analyst ("CFA") Program curriculum. Another is evaluating the models' projected proportion of a utility's return achieved from capital gains as compared to the dividend yield.

Q. Can you describe current capital market conditions as it relates to the utility industry in general, the LDC industry, and Spire Inc. in particular before you explain how you specifically estimated Spire Missouri's COE?

A. Yes. This information provides context as to the current state of utility capital markets and what this implies about the trend in capital markets over approximately the last decade when long-term interest rates entered into a prolonged period of lower levels with a declining trend. At times, I focus on a shorter time period beginning in 2015, as opposed to a full decade, because this period particularly highlights several phases in trading patterns of the LDC industry compared to the regulated electric utility industry, which are as follows: (1) trading at a premium to the electric utility industry (2015-2019), (2) trading at a discount to the electric utility industry (2020), (3) trading close to par with the electric utility industry in early 2021, (4) a consistent discount in late 2021, and (5) oscillating between a discount to around parity during much of 2022.

P

Q. Did you sponsor ROR testimony in Spire Missouri's 2017 rate case and 2021 rate case?

A. Yes. In the 2017 rate case, I testified on behalf of the Staff of the Missouri Public Service Commission ("Staff"). In the 2021 rate case, I testified on behalf of the Missouri Office of the Public Counsel ("OPC").

Q. What was your recommended allowed ROE in those cases?

A. In the 2021 rate case, I recommended an ROE in the range of 8.5% to 9.5%, with a point recommendation of 9.25%. In the 2017 rate case, I recommended an ROE in the range of 9% to 9.5%, with a point recommendation of 9.25%.

Q. Was your recommended allowed ROE in those cases equal to your COE estimates?

A. No. My estimated COE range was 6.9% to 7.7% in Spire Missouri's 2017 rate case. As I indicated earlier, my estimated COE range was 6.5% to 7.5% in the 2021 rate case.

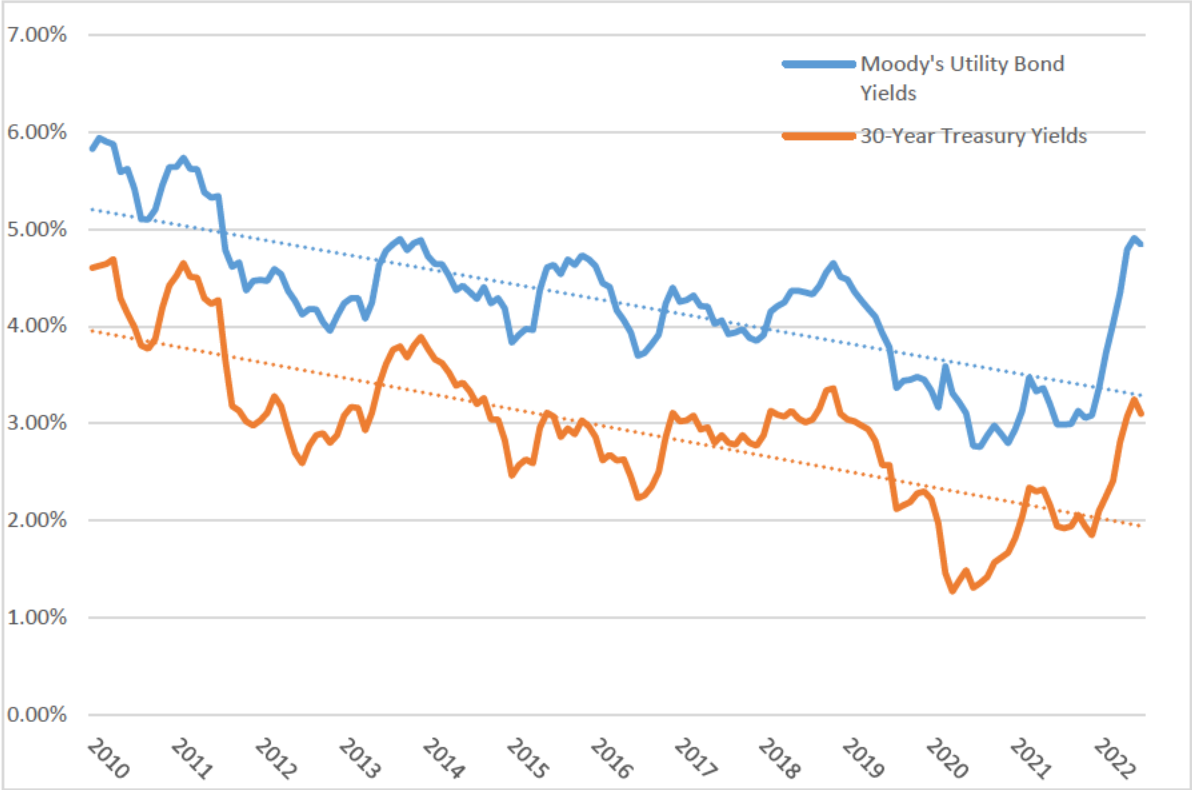
Q. How do current investment grade utility bond yields compare to investment grade utility bond yields over the past decade?

A. On a trend line basis they are lower.[5] However, bond yields have increased rapidly since early 2022 after reaching historic lows in 2020 and 2021.

The below graph shows long-term bond yields since January 1, 2010, which captures the prolonged period of lower long-term interest rates post the recession/financial crisis of 2008/2009. While the early stages of lower long-term interest rates in the first half of this decade were considered by some as potentially anomalous because of the Federal Reserve Bank's ("Fed") quantitative easing ("QE") programs[6] through the end of 2013, since that time, long-term interest rates continued an overall declining trend, until they reached all-

[5] S&P assigns the same corporate credit rating of 'A-'to Spire Inc. and Spire Missouri 'A-'; Moody's rates Spire Inc. unsecured long-term debt 'Baa2'and Spire Missouri first mortgage bonds 'A1'.
[6] QE involved three rounds of the Fed's direct intervention in bond markets beyond just lowering the Fed Funds rate. The Fed's QE programs had the express intent of reducing long-term interest rates.

time lows in 2020 and 2021. However, as can be seen, they increased dramatically during the first few months in 2022.



Average utility long-term bond yields had dropped to modern all-time lows in the latter half of 2020 - levels not experienced since the late 1940s and early 1950s (I am not aware of a publication at the time, such as Regulatory Research Associates, that compiled information on allowed returns for context as it relates to current decisions). However, the average yield on the Moody's Public Utility Bond index has increased by approximately 100 basis points since early 2022 and 30-year UST yields have increased by twice that amount during the same time frame. Analyzing bond yields over the last few months may cause one to conclude that the utility industry's COE has increased, just as analyzing bond yields during much of 2020 and 2021 may have caused one to conclude that utility's COE had decreased. However, post onset of Covid-19, capital markets have not traded consistent with fundamentals. Much of this appears to be driven by the Fed's and U.S. Congress' massive interventions through monetary and fiscal policies, respectively.

P

Q. Why is it typically important to evaluate trends in long-term interest rates when evaluating the utility industry's COE?

A. The investment community typically regards regulated LDC stocks and electric utility stocks as bond proxies/pseudo bonds, meaning that if long-term bond yields decline, then this typically causes regulated electric and gas utility stocks prices to increase. Therefore, changes in utility stock valuation levels typically have a strong inverse correlation to changes in bond yields, i.e. as bond yields decline, utility stock prices increase.

Q. Since April 2020, have utility stock valuations and bond yields provided traditional and consistent signals about utilities' cost of capital?

A. No. Utility and corporate bond yields have declined significantly since even before the pandemic, which were already trading at yields-to-maturity ("YTM") that were at 60-year lows. During the months following the onset of Covid-19, the YTM on utility and corporate bonds' traded at 70-to-80 year lows. However, at the same time, broader utility industry stocks (mainly LDC and electric utility stocks) declined on both an absolute and relative basis (as compared to the S&P 500). Consistent with recent atypical trading patterns, despite recent increases in utility and corporate bond yields, broader utility industry stocks increased on both an absolute and relative basis.

Consequently, while the utility industry's debt costs have fluctuated along with the macro changes in interest rates, the same is not true for the utility industry's cost of equity. For example, as I will discuss later in my analysis using the Capital Asset Pricing Model ("CAPM") analysis, the cost of equity indications using the CAPM implies that utility's COE has also fluctuated significantly, but such indications are not consistent with current utility equity market conditions. Current utility equity market conditions imply that investors currently require a lower equity risk premium to invest in utility stocks as compared to bonds.

P

Q. Can you provide a graphic illustration that compares the LDC industry's price-to-next-twelve-months-earnings (P/E) ratios to the electric utility industry's P/E ratios since January 1, 2012?

A. Yes. However, I will first identify the companies I used to represent the electric and LDC industries. This is especially important as it relates to the LDC industry because of the eight publicly-traded companies (Atmos Energy Corporation, NiSource Inc., New Jersey Resources Corporation, Northwest Natural Holding Company, ONE Gas Inc., South Jersey Industries Inc., Southwest Gas Holdings Inc., and Spire Inc.), two (South Jersey Industries Inc. and Southwest Gas Holdings Inc.) are either a target of an acquisition (South Jersey Industries Inc.) or have recently been the subject of a strategic review, which included the possibility of being acquired (Southwest Gas Holdings Inc.). Therefore, six of the eight companies' stock prices should be a function of standard business and financial risk associated with their assets, rather than being influenced by announced transactions or potential transactions. The following proxy group of electric companies' stock prices have not been unduly influenced by potential merger and acquisition transactions: Alliant Energy Corporation, American Electric Power Company Inc., CMS Energy Corporation, DTE Energy Company, IDACORP Inc., OGE Energy Corp., Pinnacle West Capital Corporation, Portland General Electric Company, The Southern Company, WEC Energy Group Inc., Xcel Energy Inc. and Ameren Corporation.

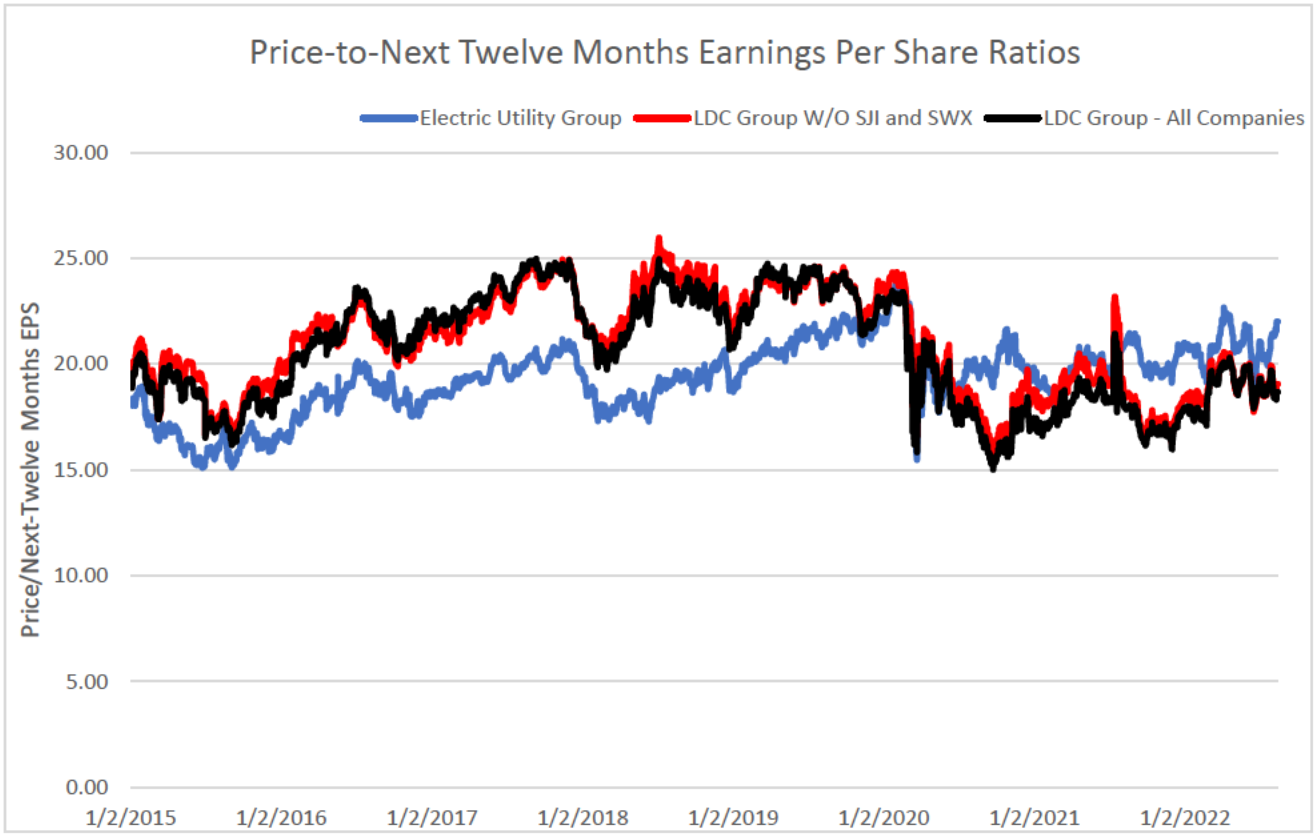
The graph below compares the P/E ratios of the electric utility group to the LDC group, with and without Southwest Gas Holdings Inc. ("Southwest Gas") and South Jersey Industries ("South Jersey").[7] Also, for context regarding the favorableness of utility P/E ratios over the past several years, utility P/E ratios averaged 14.4x since 1995.[8] A graph of the P/E ratios for the LDC and electric utility industry follows:

[7] One Gas Inc. is excluded from both groups because it didn't exist before 2014.
[8] Durgesh Chopra, et. al., "Up & Up – Strong First Quarter Electric Demand," Evercore ISI, April 10, 2022, p. 8.

P

First, as is apparent from the chart, the P/E ratios of the two LDC proxies, with and without South Jersey and Southwest Gas, are fairly similar. Therefore, the composition of the LDC group does not explain valuation differences between the LDC proxy and the electric utility proxy. As can be seen, the LDC industry traded at a premium to the electric utility industry until the end of 2019. The premium was especially pronounced during the latter half of the last decade. Because the above graph did not include ONE Gas Inc. (the only 100% pure-play LDC company of all of the publicly-traded LDCs) because it did not become a publicly-traded company until 2014, I provide a graph below comparing the LDC industry (with One Gas Inc. included) to the electric utility industry P/E ratios since January 1, 2015:

P



As is graphically illustrated, LDC's traded at a significant premium to electric utilities for the five-year period, January 1, 2015 through December 31, 2019. The average P/E multiple was approximately 3x higher over this period. However, beginning in early 2020 and through most of 2021, LDC's started trading at a discount to electric utilities. In the last couple of months LDC's have been trading at a P/E ratio of around 19x compared to around 21x for electric utilities.

Q. What are some logical explanations for LDCs trading at a slight discount to electric utility companies?

A. I have seen several explanations from equity analysts attempting to explain LDCs trading at discounts to electric utilities in recent years. The following captures the major themes:

First, the fact that the recently passed federal climate legislation that offers financial incentives to electric utilities' renewable energy initiatives, coupled with some states' and cities' initiatives for electrification, the future viability of natural gas utility service for

P

space heating and other ancillary uses has been a matter of debate. This naturally influences investors' expectations and pricing of LDC stocks. In fact, subsequent to Massachussetts' recent passage of a law allowing cities to ban new natural gas hookups, Boston announced its intent to pursue such a program.[9] These initiatives cast doubt about the potential for the LDC industry to continue to grow over the long-term, if not whether the industry will even exist several decades into the future.

Second, not only does the foregoing not bode well for the LDC industry, but it would be an opportunity for electric utility companies to expand through additional customers and investment in renewable energy. These policies would cause investors to expect the electric utility industry to be more viable as compared to LDCs.

Third, most companies that are considered LDC companies, other than Atmos Energy Corporation and NiSource Inc., are smaller companies (considered mid-cap or less because the market capitalization of their publicly-traded equity is less than $5 billion). Smaller companies typically trade much more cyclically even if their underlying fundamentals are solid (smaller utility companies still had fairly predictable demand and earnings during the pandemic and were even allowed to book regulatory assets for excess costs incurred during the pandemic).[10]

Finally, although the companies in the LDC industry are predominately state regulated monopoly local gas distribution utilities, several of the companies have commodity exposure through their non-regulated businesses, such as Spire Inc.'s gas marketing businesses. This commodity exposure can allow for better returns during expansionary economic periods, but lower returns during economic downturns. Recent recessionary fears related to the Fed's aggressive action to bring inflation under control can cause commodity-sensitive stocks to trade at lower P/E ratios as compared to pure-play regulated utility companies that pass fuel and purchased power costs directly through to ratepayers. LDCs with the most non-regulated business exposure are New Jersey Resources Inc., South

[9] CIQ Pro: Boston will pursue natural gas ban in new buildings (spglobal.com)
[10] Neil Kalton, et. al., "Reshuffling the Deck Amidst Unwind of ESG/Quality Trade: Upgrading WEC, PCG, BEP & BEPC; Downgrading SJI, SR & CWT," p. 5, March 4, 2021.

Jersey, Southwest Gas, and Spire Inc. Typically, the more a company is exposed to commodity pricing risk, the more the company's stock will fluctuate with economic cycles (and consequently the broader markets). While this is certainly a risk incurred by these companies' non-regulated business segments, this is not a risk that regulated utility ratepayers should subsidize through a higher ROE.

Q. Does the fact that LDCs are trading at a discount to electric utility companies mean that their cost of equity is higher than electric utilities?

A. No. It certainly implies such, but comparing my multi-stage DCF COE estimates for the LDC industry in this case compared to my electric utility COE estimates in the concurrent Evergy Missouri West and Evergy Metro rate cases does not support this conclusion. Based on my analysis in this case and my analysis in the Evergy rate cases, it appears that the COE for LDCs and electric utilities are currently about the same.

Q. If the future viability of the LDC industry is in doubt due to long-term goals to decarbonize energy, then how would this impact the LDC's expected long-term growth rates and potential terminal values?

A. It would cause downward pressure on potential growth for the industry. It is even possible that some investors may potentially start factoring in a contraction (i.e. negative growth) in the industry. This would affect investors' estimates of terminal value, which would partly explain LDC's P/E ratios being lower relative to the electric utility industry.

Q. Are you aware of investment analysts analyzing scenarios in which the LDC industry has $0 in terminal value several decades in the future?

A. Yes. Wells Fargo evaluated a scenario in which the LDC industry would have no value ($0) to investors by the year 2060. In this scenario, Wells Fargo used a 6.5% COE to

determine a fair value estimate of LDC companies. Wells Fargo's analysis implied a 30% discount to the average electric utility P/E would be justified under this scenario.[11]

Q. What valuation model did Wells Fargo use for its assessment of this scenario?

A. A dividend discount model ("DDM"), which is synonymous with the discounted cash flow ("DCF") method in regulated utility cost of capital debates.

Q. Do these current utility industry issues cause additional difficulties in estimating a proper perpetual growth rate for LDC companies when estimating LDCs' COE?

A. Yes. Historical industry growth data for the LDC industry typically supported a potential perpetual growth rate slightly higher than those achieved by the electric utility industry, but now it appears that the LDC industry may be hard pressed to achieve much growth after each company completes its pipeline replacement programs, which range from completed by Northwest Natural Holding Company to over 10 years for other companies.[12]

Q. Doesn't the uncertainty surrounding the LDC industries' long-term viability cause additional risk to investors in LDCs?

A. Yes. As I will explain in more detail when I describe my COE analysis, it is my opinion that Spire Missouri's allowed ROE should not be lower than that which is considered reasonable for an electric utility. In Spire Missouri's 2017 rate case I recommended Spire Missouri's authorized ROE should be at least 25 basis points lower than that which is considered reasonable for an electric utility with a similar overall risk profile (i.e. both business risk and financial risk). If the Commission were to authorize Spire Missouri an ROE consistent with my recommended allowed ROE of 9.25%, this is consistent with the Commission's most recent authorized ROE of 9.25% for a Missouri electric utility.[13] A

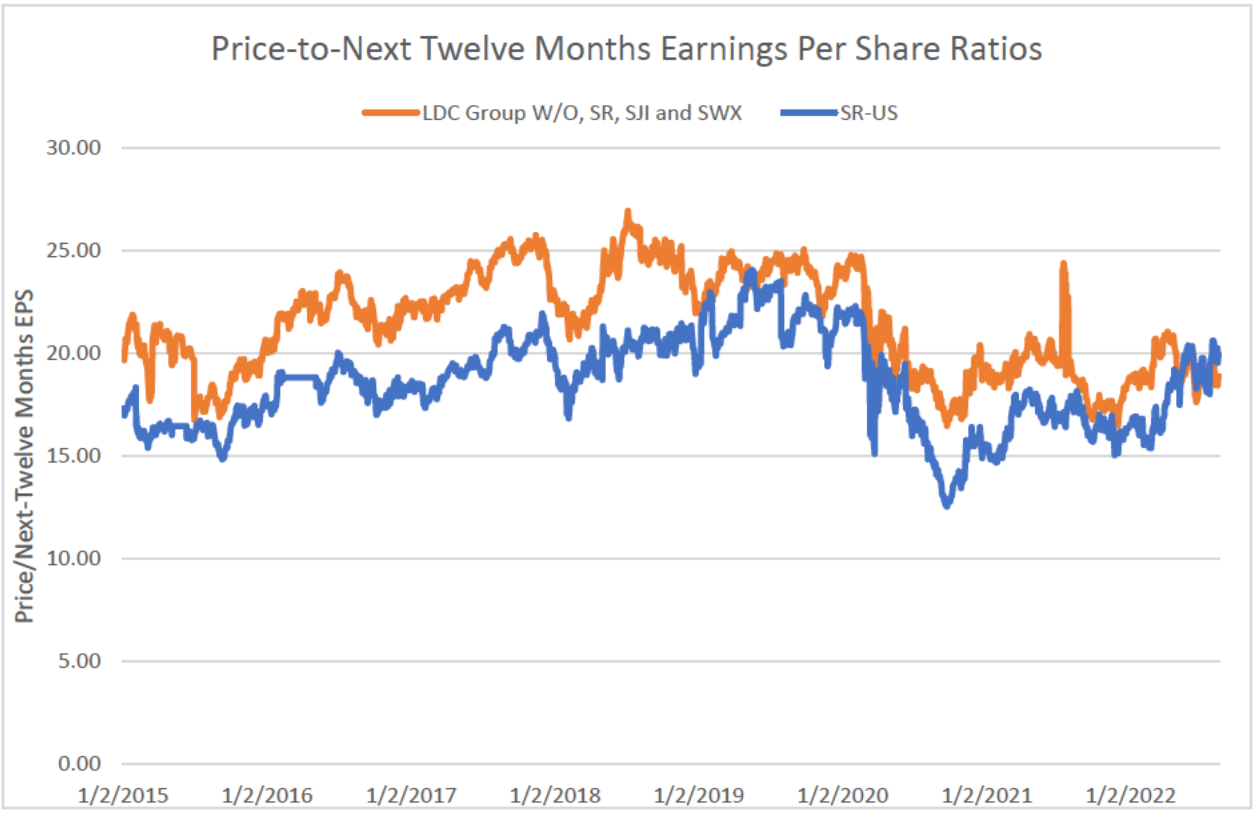
[11] Sarah Akers, et. al., "Gas Utilities: Exploring Recent Underperformance + LDCs in an ESG Era," September 27, 2020, Wells Fargo.
[12] *Id.*
[13] Case No. ER-2019-0374.

P

9.25% authorized ROE allows for 200 basis point spread over the mid-point of my COE estimated range of 7.0% to 7.5%.

Q. How has Spire Inc.'s P/E ratios compared to the LDC industry?

A. See the below chart:



Spire Inc. traded at a discount relative to the rest of the LDC industry from 2015 through 2018. Spire Inc. more or less traded in-line with the LDC industry during 2019 and most of 2020. However, during the Fall of 2020 and into 2021, Spire Inc. once again traded at a discount to the LDC industry. Bank of America indicated the following about Spire Inc.'s underperformance compared to its peers in a July 21, 2020, report:

> SR has traded at a discount to peers due to ongoing overhangs related to: 1) uncertainty in recovering Infrastructure System Replacement Surcharge (ISRS) revenues in MO; 2) lack of confidence in mgmt.'s storage strategy; and, 3) unclear messaging from mgmt. on its long term growth target (i.e. the base year for the 4-7% growth range). Given mgmt. was able to settle the 2016-2018 ISRS appeal, legislation was signed by the governor to

P

> clarify future ISRS recovery, and the company recently took a $130-150mn impairment charge on its storage assets, the story is becoming much cleaner.[14]

Of particular interest in this case, considering the fact that Spire Missouri filed this rate case on the heels of the 2021 rate case, which was decided in the Fall of 2021, is the fact that Spire Inc.'s P/E ratios traded at a discount to the LDC industry during the Fall of 2021 and into early 2022, but is now trading in line with the LDC industry.

Q. Considering Spire Inc.'s opinion that the Commission's 2021 rate case decision was unreasonably punitive, why would Spire Inc.'s current P/E ratios be trading in line with the rest of the industry?

A. Because Spire Inc.'s fundamental business risks and expected EPS growth hasn't changed. The Commission's decision in Spire Missouri's last rate case simply rebased a fair and reasonable earnings level. Spire Inc. continues to project 7% to 8% rate base growth, which causes it to guide investors toward a 5% to 7% long-term CAGR in EPS, but this growth is now based on a lower 2022 EPS level, which incorporates the lower revenue requirement authorized in the 2021 rate case.

Q. What are equity analysts' current consensus 2022 EPS estimates for Spire Inc.?

A. $3.89.

Q. What were they before the Commission's decision in the 2021 rate case?

A. $4.38.

Q. If you applied Spire Inc.'s P/E ratio of around 16.5x at the end of October 2021 (during Commission deliberations and before the Commission's Order) to the previous higher EPS estimate, how much were these earnings worth to shareholders?

A. Around $8 ($0.49 EPS x 16.5).

[14] Richard Ciciarelli, CFA, et. al., "2Q20 Gas LDC preview: Glimpse into the future of the gas utility outlook," Bank of America, July 21, 2020, p. 26.

Q. Did Spire's stock underperform the LDC industry by a similar value subsequent to the Commission's deliberations and decision in the 2021 rate case?

A. Yes. Spire Inc.'s stock underperformed the LDC group by approximately 12% through February 23, 2022, which translates into a little less than $8/share.

Q. Why did you compare the relative performance through February 23, 2022?

A. This is the date in which IIF announced its proposed acquisition of South Jersey, which directly impacted South Jersey's stock price and indirectly impacted other LDC stock prices.

Q. Does Spire Inc.'s stock price underperformance demonstrate higher risk related to earnings contributed by Spire Missouri going forward?

A. No. Once a fair and reasonable ROR is set, the expected growth in earnings is driven by rate base growth, new connections, productivity improvements, and/or cost savings. Other than allowing a higher return on short-term debt due to recent increases in the cost of short-term debt, there is no compelling reason for a significant change to the Commission's decision in the most recent rate case. As I will discuss when describing my COE analysis, Spire Inc.'s and the LDC industry's COE is lower now than it was during the 2021 rate case. This is directly due to higher current valuations compared to 2021.

Q. Do Spire Inc.'s communications to investors cause higher levels of EPS expectations and therefore a likely negative stock price reaction if the Commission makes decisions contrary to these expectations?

A. Yes. Despite the fact that I had communicated in my testimony in the last rate case that the Commission has included short-term debt in past authorized ratemaking capital structures when case-specific evidence supported such, as well as the fact that Spire Missouri itself had recommended short-term debt be included in its authorized ratemaking capital structure in 2002, Spire Inc. continues to communicate to investors that including short-term debt is "unprecedented." Since the Commission's decision in the 2021 rate case, Spire Inc. has communicated to investors it expects to be able to "fix" the Commission's

punitive decision by filing this rate case.[15] In fact, Spire Inc. has communicated that considerations other than evidence may cause a more favorable outcome in this rate case. Spire Inc. specifically communicated the following:

> Mgmt. noted that there is a different hearing examiner vs the prior case and some turnover at the Office of Public Counsel which could lead to a different outcome even if the issues are largely the same. Additionally, Spire's relationship with staff is healthy as evidenced by Staff's relatively constructive recommendation in the last case.[16]

Spire Inc. continues to communicate that it expects the Commission to authorize it a common equity ratio of approximately 55%. This common equity ratio is not targeted for purposes of financial stability or maintaining stable and cost efficient access to capital markets. If this were the case, then Spire Inc. would target a similar common equity ratio at the consolidated level. As I demonstrated in Spire Missouri's last rate case, Spire Inc.'s financial strategies are primarily driven by consideration of the impacts at the Spire Inc. consolidated level. This is clearly evident from Spire Inc.'s 2021 financing plan (*see* Schedule DM-D-3). It is Spire Inc.'s market-tested capital structure that the Commission should consider as at least a test of reasonableness of Spire Missouri's requested ratemaking capital structure. Spire Inc.'s consolidated capital structure continues to be much more levered than Spire Missouri, even after excluding goodwill from Spire Missouri's common equity balance.

COST OF EQUITY METHODS

Q. Now that you have provided some context on changes in utility capital market conditions generally, the LDC industry and Spire Inc., can you discuss how you decided to approach your COE estimate for Spire Missouri in this case?

A. Yes. I performed a company-specific COE analysis on Spire Inc. as well as a proxy group COE analysis. I used a multi-stage DCF approach and a CAPM. I then tested the

[15] Julien Dumoulin-Smith, et. al, "Gas LDC F1Q22 Preview: Where are the weather impacts? Who do we prefer?," Bank of America Securities, January 31, 2022.
[16] Julien Dumoulin-Smith, et. al, "AGA Conference 2022: The More Things Change, the More They Stay the Same," Bank of America Securities, May 19, 2022.

P

reasonableness of my estimates by using some simple, straightforward sanity checks, such as the simple, but reliable, bond-yield-plus-risk-premium method discussed in the CFA curriculum.[17]

Q. How have you informed yourself as to reasonable and rational inputs for your COE approaches?

A. Being that the objective of a ROR witness is to emulate investors' approaches to analyzing and making investment recommendations as it relates to investing in utility stocks, I have made it a priority to review and analyze how equity research analysts determine a utility stock price estimate in practice. This has allowed me to test the theory of cost of capital estimation in utility ROR testimony as it compares to how utility stocks are actually valued. I have discovered professional equity analysts typically use a combination of valuation approaches. Investment firms may use absolute/intrinsic valuation techniques, such as a multi-stage DCF approach to estimate fundamental values of utility stocks and/or they use relative valuation techniques that compare a company's P/E ratios to an average for the industry. In my experience, professional equity analysts project long-term CAGR in EPS to determine whether a company's P/E ratio deserves a premium or a discount to its peers. Professional equity analysts do not use these estimated long-term CAGRs in EPS for purposes of projecting a perpetual dividend growth rate, as some ROR witnesses suggest. If the investment analysts are performing an absolute valuation analysis, such as a DCF/DDM, they assume rational perpetual growth rates in the 2.7% to 3.3% range when discounting dividends for LDC companies. Finally, and most relevant to the task at hand, they estimate utilities' COE to be in the 5% to 6% range.[18]

Q. What equity research firms cover Spire Inc.'s stock?

A. According to Spire Inc.'s website, the following firms cover its stock: Bank of America Securities, Credit Suisse, Edward Jones, Guggenheim Securities, JP Morgan, Mizuho

[17] 2021 CFA Program Refresher Reading, Level II, Reading 25, p. 35.
[18] Durgesh Chopra, et. al, "Top Ten Touches – Q1 2022 Investor Activity," May 30, 2022, Evercore ISI. Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.

Securities USA, Morgan Stanley, RBC Capital Markets, Sidoti & Company, Stifel Nicolaus & Co., and Wells Fargo Securities.

Q. Why is it important to analyze this information to determine a fair and reasonable allowed ROE for Spire Missouri?

A. Analyzing this information is important because these professional investment analysts are the very individuals that underlie various consensus estimates widely considered by investors. ROR witnesses recognize the influence investment analysts have on utility stock prices by the very fact that they use consensus EPS forecasts for purposes of estimating the COE.

Q. Did you review any of these firms' research for purposes of performing your cost of equity analysis and preparing your testimony?

A. Yes. I mainly relied on reports Spire Missouri provided in response to OPC Data Request No. 3002. However, over my career I have established relationships with some firms/analysts who have distributed this material to me directly through their email distribution lists. These relationships were borne from my role as a regulator in which many of these analysts seek information related to Missouri's general and specific regulatory issues. I have also interacted with these analysts through my participation in organizations, such as the Society of Utility and Regulatory Financial Analysts ("SURFA").

Q. How did you approach the multi-stage DCF/DDM analysis you performed on Spire Inc.?

A. Schedule DM-D-4 attached to my testimony shows the primary logic and assumptions I used in my multi-stage approach. For the first stage, I used consensus analysts' estimates for annual dividend per share ("DPS") through 2026, which is the longest period for which this information is available for Spire Inc. Spire Inc.'s consensus dividend payout ratio is projected to be 64.12% in 2023. Spire Inc.'s current guidance on its dividend payout ratio

P

is 55% to 65%.[19] Being that Spire Inc.'s pipeline replacement program is expected to continue for approximately another 15 years,[20] I assumed Spire Inc. could continue to achieve a CAGR in EPS over the next 15 years that would be higher than inflationary growth. However, I assumed that equity analysts' median projected 5-year CAGR in EPS of 4.65% would gradually decline to a perpetual growth rate of anywhere from 0% in 2052 (no growth-maintain a constant rate base due to no industry growth) to 2.8% growth (Wells Fargo's assumed perpetual growth rate for Spire Inc.) starting in 2037. In order to sustain a growth rate consistent with inflation, Spire Inc.'s earnings retention rate does not need to be as high as its targeted rate of 35% to 45%. Based on a long-term 9.25% reinvestment return, Spire Inc. would need to retain a little over 20% of its earnings in order to sustain an inflationary growth rate.

Q. Did Spire Inc. increase its dividend at the end of 2021 despite its vociferous disappointment with the Commission's decision issued in November 2021?

A. Yes. Spire Inc. announced a 5.4% increase in its dividend in November 2021. This caused Spire Inc.'s dividend payout ratio to increase to over 70% based on 2022 estimated EPS.[21]

Q. Can you provide some additional explanation as to the rationale underlying your assumed growth rates for Spire Inc.?

A. Yes. Spire Inc. has provided guidance to investors that it expects to achieve a long-term CAGR in EPS in the range of 5% to 7%, supported by an anticipated long-term CAGR in rate base of 7% to 8%.[22] Investors have factored in an expected CAGR in Spire Inc.'s DPS of approximately 3.52% through 2026. However, Spire Inc.'s pipeline replacement programs are finite and they will eventually return to a maintenance level of capital

[19] Brian J. Russo, CFA "Downgrade Rating on Spire to Neutral (From Buy) On Valuation; Staff Audit Positive, Missouri Rate Case In Focus and STL FERC Remand Ongoing; Maintain $74 Target; Dividend Yields 3.6%" Sidoti & Company, April 13, 2022.
[20] Gabriel Moreen, "Spire Inc. – Regulated Growth In-Spires, but Valuation Gap has Closed; Initiate at Neutral, $78 PT," Mizuho Securities USA LLC, April 15, 2021.
[21] Brian J. Russo, CFA "Downgrade Rating on Spire to Neutral (From Buy) On Valuation; Staff Audit Positive, Missouri Rate Case In Focus and STL FERC Remand Ongoing; Maintain $74 Target; Dividend Yields 3.6%" Sidoti & Company, April 13, 2022.
[22] *Id.*

P

investment, similar to Northwest Natural Holdings Company's ("Northwest Natural") current status, which already has a higher payout ratio (approximately 75%) and a lower projected 5-year CAGR in EPS of 4.5% and is only expected to increase its dividend by 14 cents by 2026 (1.81% CAGR). Consequently, Northwest Natural is seeking to grow through the acquisition of water utilities to diversify its exposure to the LDC industry, as well as making investments in renewable natural gas. Once Spire Inc. achieves its constant state of growth, then its dividend payout ratio should converge to a target that ensures it will have sufficient internal equity capital to fund its investments. At a constant growth rate consistent with expected long-term inflation, the payout ratio target should be 78.38% assuming a 9.25% reinvestment return. Assuming a perpetual growth rate of 2.8% requires a dividend payout ratio target of 69.73%.

Q. What type of growth has the LDC industry been able to achieve historically?

A. For the period 1968 through 2016, the 10-year rolling compound growth rates in DPS, EPS and BVPS for the LDC group were in the range of 2.5% to 5.5% with an average of around 4.25%. For the same period, Spire's 10-year rolling compound growth rates in DPS, EPS and BVPS ranged from 1.7% to 8.7% with an average of 4.2%.[23] This information suggests a constant growth rate of approximately 4% could be achieved. However, as I have explained, there is significant debate in the investment community as to what value, if any, should be assigned to the LDC industry several decades into the future, let alone a constant-growth rate as high as 4%. However, for sake of testing the reasonableness of my multi-stage DDM and CAPM, a constant-growth DDM estimate can be easily determined by adding the LDC group's average dividend yield to the 4% growth rate. The broad LDC proxy group average dividend yield is approximately 3.2%. A simple constant-growth DDM using a 4% growth rate suggests an LDC COE of approximately 7.2%.

[23] See Schedules 9-5 to 9-8 in Appendix 2 Attached to Staff's Cost of Service Report filed in Case No. GR-2017-0215.

P

Q. Are there any logical relationships related to regulated utility stocks that prove the aforementioned constant-growth DCF/DDM COE estimate is likely too high?

A. Yes. A Bernstein analysis showed that between 1974 to 2010, approximately 68% of returns from utility stocks were from the income received through dividends, with the remaining from capital gains.[24] The above constant-growth DCF/DDM COE estimate implies that an investor expects to achieve over 50% of their expected return from capital gains. This assumption defies the fundamental investment characteristics of yield investments, such as regulated utility stocks. If LDCs were to achieve no more than half of their returns from capital gains, this would imply an expected return of 6.4%.

Q. What is a rational and reasonable perpetual growth rate for LDCs?

A. Anywhere from 0% to 3.3%. However, I primarily rely on perpetual growth rates of 2% (inflationary growth) to 3.3% (highest used by Wells Fargo to estimate a fair value for LDCs). A perpetual growth rate within this range is also consistent with the "sustainable growth model," which estimates EPS growth by multiplying an average long-term industry retention rate by an expected book ROE. Assuming the LDC industry reverts to its long-term earnings retention rate of approximately 30% and allowed ROEs are eventually lowered to compress the spread between the COE and the allowed ROE, this would support a 2.78% perpetual growth rate (9.25% allowed ROE multiplied by 30%). Wells Fargo, a firm that follows Spire Inc., and Evercore ISI, a firm that follows other utility companies in the utility industry, assume long-term scenarios where allowed ROEs eventually decline to between 9% to 9.25% as the United States remains in a prolonged period of low costs of capital.[25]

[24] Hugh Wynne, Francois D. Broquin, and Saurabh Singh, "U.S. Utilities: Our Dividend Growth Model Identified Utilities Poised to Pay More," May 20, 2011, Bernstein Research.
[25] Durgesh Chopra, et. al, "Top Ten Touches – Q1 2022 Investor Activity," May 30, 2022, Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.

Q. How does your assumed perpetual growth rates compare to those used by equity analysts to estimate fair prices for LDC stocks?

A. This is fairly consistent with the perpetual growth rates used for purposes of estimating LDC utility stock prices. For example, Wells Fargo used an average perpetual growth rate in the range of 2.7% to 3.3% for LDC companies.[26]

Q. What cost of equity did you estimate performing a company-specific multi-stage DCF on Spire Inc.?

A. Using Spire Inc.'s average daily closing stock prices since March 31, 2022, $74.35, and discounting prospective dividends by reasonable growth rates in the intermediate future as well as perpetually (0% to 2.8%), the implied COE for Spire Inc. is approximately 7.26% to 7.54% (see Schedule DM-D-4). This compares to the 7.37% to 7.68% range I estimated in Spire Missouri's 2021 rate case. While Spire Inc.'s earnings are predominately derived from its regulated LDC operations (approximately 90%), it has non-regulated exposure to natural gas marketing operations and its storage business, which introduces higher volatility and uncertainty to Spire Inc.'s earnings. For example, in 2021, Spire Inc.'s net income increased by approximately $40 million, or $0.30 EPS, due to Spire Marketing's profits from Winter Storm Uri.[27] In 2020, Spire Inc. took $148.6 million of asset impairments related to its non-regulated investments, which reduced Spire Inc.'s EPS by $2.89 for the 2020 FY.[28] This volatility in EPS due to non-regulated operations certainly causes investors to discount Spire's stock price for this uncertainty. For this reason, I will also carefully consider the COE estimates for the companies in my LDC proxy group that have less exposure to non-regulated business risks.

[26] Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.
[27] Brian J. Russo, CFA "2Q:F21 Results Beat Our Estimates Driven By Gas Marketing Outperformance; Raise Estimates, Maintain NEUTRAL Rating And Raise Price Target to $76 (From $67); Dividend Yields 3.4%," Sidoti & Company, May 10, 2021.
[28] Spire Inc.'s Investor Presentation, "Year-end Fiscal 2020 Update", November 18, 2020, p. 10.

PROXY GROUP COST OF EQUITY

Q. Did you also estimate the COE for the LDC industry as compared to Spire Inc.?

A. Yes. Investors frequently evaluate the attractiveness of a utility company's share price by comparing it to the average of a peer group, whether it's based on a broader utility index or a custom proxy group.

Q. How did you approach selecting a custom proxy group for purposes of comparing Spire Inc.'s COE versus its peers?

A. The number of publicly-traded companies at least generally classified as LDCs is fairly small with Value Line classifying only 10 companies as LDCs. Additionally, based on my review of equity research reports covering the LDC industry, equity analysts typically only include eight to nine companies in their LDC peer groups. I decided to use the same proxy group I used in Spire Missouri's last rate case with the exception of South Jersey Industries because the Infrastructure Investment Fund, managed by JP Morgan, announced an acquisition offer on February 24, 2022. Although I decided to continue including Southwest Gas in my proxy group, I also show results without Southwest Gas because of the activist investor's (Carl Icahn) initiatives that has caused volatility in its stock price. Therefore, I used the following seven companies for my LDC proxy group: Atmos Energy Corporation ("Atmos"), New Jersey Resources Corporation ("New Jersey"), NiSource Inc. ("NiSource), Northwest Natural Holding Company ("Northwest"), ONE Gas Inc. ("One Gas"), Southwest Gas Holdings Inc. ("Southwest") and Spire Inc. Although I estimated the COE for all companies in the LDC group, I gave more weight to the results from companies that have operations that are almost entirely concentrated in the LDC industry or at least entirely concentrated in regulated utility operations (some electric and water). As I indicated, I also show results without Southwest Gas.

Q. Did you perform a multi-stage DCF analyses on these companies?

A. Yes. I applied the same principles as I did when estimating Spire Inc.'s COE, which was to specifically incorporate equity analysts' discrete dividend per share ("DPS") estimates

through 2026, then estimate DPS based on projected earnings per share ("EPS") growth and a sustainable DPS payout ratio as it relates to the projected EPS. For the terminal stage, I assumed all companies would have the same dividend payout ratios and growth rates.

My average LDC industry COE estimate based on application of the multi-stage DCF to the proxy group is generally in the range of 7.25% to 7.55% (see Schedules DM-D-5 through DM-D-7). This compares to my range of COE estimates of 7.7% to 7.9% in Spire Missouri's 2021 rate case.

Q. How is the multi-stage DCF analysis you have been performing while sponsoring testimony on behalf of OPC different than how you performed such analysis when sponsoring testimony on behalf of Staff?

A. While I was with Staff, the multi-stage DCF I performed was more generic. For the first stage (first five years), I assumed that DPS would grow at the same rate as EPS. For the second stage (next five years), I assumed the growth in DPS would gradually converge toward the perpetual growth rate, which was the third and final stage of the multi-stage DCF.

The multi-stage DCF I have sponsored since Ameren Missouri rate case, Case No. ER-2019-0335, still has 3 stages, but the first stage discounts discrete consensus annual DPS estimates for as many years as they are available for each company. At the point in which no discrete DPS estimates are available, I apply an estimated dividend payout ratio to each company's projected EPS in order to estimate the dividend payment. Because the projected EPS are based on analysts' estimates for the first five years and then transitions to a sustainable growth rate by the final stage, this approach captures the influence of analysts' estimates on utility stock prices, while still discounting the appropriate metric, DPS. This method also corrects for the fact that the appropriate dividend payout ratio will vary until the company reaches a sustainable state in which it manages its dividend payout ratio to ensure it is not required to issue new equity, which would reduce the value of existing shares.

My current multi-stage DCF approach is more consistent with anticipated impacts on projected DPS caused by investment opportunities and dividend strategies consistent with these investment opportunities. Typically, companies won't increase DPS at the same rate as EPS, especially during periods of higher capital expenditures. In such situations, typically the growth in DPS will lag that of EPS. After the increased capital expenditure cycle ends, then DPS may grow at a rate higher than EPS for a period of time. During this period, companies will adjust their dividend payout ratios to consider their stage in the building cycle. After the building cycle returns to a maintenance level of capital expenditures, then the payout ratio will increase until the company reaches its sustainable/constant state. After a build-cycle, especially with no expected growth in usage, eventually the growth rate would revert back to no higher than historical averages. However, considering the current threats to the LDC industry's ability to grow through expansion (additional customers and usage), historical average growth rates are an optimistic scenario.

Q. If you had performed your multi-stage similar to how you did so when with Staff, what COE would you have estimated?

A. My COE estimate would have been around 6.05% to 6.15% (see Schedule DM-D-8). This compares to the approximate 6.35% to 6.65% I estimated in Spire Missouri's last rate case.

Q. What other models did you use to analyze Spire Missouri and the LDC industry's COE?

A. I used the Capital Asset Pricing Model ("CAPM"). The CAPM shows the specific impact of lower interest rates on the cost of capital. Although COE estimates can be manipulated with the CAPM by using unreasonable risk premium estimates, fortunately there are a variety of authoritative sources that provide equity risk premium estimates that can form the basis for a consensus view on reasonable risk premium based on current capital market conditions.

Q. What is the underlying theory that supports the use of the CAPM to estimate the cost of equity for utilities?

A. The CAPM is based on capital market theory in which it is recognized that although the total risk of a company and/or industry consists of market ("systematic") risk and asset/business-specific ("unsystematic") risk, investors are only compensated for systematic risk because holding a diversified portfolio allows for the investor to avoid unsystematic risk. Systematic risks are unanticipated events in the economy, such as economic growth, changes in interest rates, demographic changes, etc., that affect almost all assets to some degree. The required risk premium for incurring the market risk as it relates to the investment/portfolio is determined by adjusting the market risk premium by the beta of the stock or portfolio. The adjusted risk premium is then added to a risk-free rate to determine the cost of equity. The CAPM is typically expressed in equation form as follows:

$$K_e = Rf + \beta\,(RP_m)$$

Where:
K_e = the cost of equity for a security;
Rf = the risk-free rate;
β = beta; and
RP_m = equity risk premium.

For purposes of my CAPM analysis, I relied on Duff & Phelps (D&P) recommended equity risk premium of 5.5% provided as of December 8, 2020[29] and a range of realized historical market risk premiums of 4.92% (geometric historical mean for 1926 through 2021) to 6.37% (arithmetic historical annual mean for the period 1926 through 2021) derived from data provided by Ibbotson Associates' Stocks, Bonds, Bills and Inflation database. Although each of these market risk premium estimates use various methods and risk-free rates to arrive at their final estimates, I do not consider any estimate outside these to be consistent with the investment community's "consensus." One of the primary drivers of using a higher market risk premium versus a market risk premium is due to whether this market risk premium is applied to a normalized risk-free rate or a current risk-free rate

[29] https://www.duffandphelps.com/insights/publications/cost-of-capital/duff-and-phelps-recommended-us-equity-risk-premium-decreased-december-2020

(higher market risk premiums applied to lower current low risk-free rates). Long-term expected nominal market returns for the S&P 500 are as low as 4.1% to 6.37%.[30] Therefore, market risk premiums in the 5.5% to 6.0% range may actually be excessive for purposes of a CAPM analysis.

Q. What does the beta represent in a CAPM analysis?

A. Beta is statistically defined as the covariance of the returns on an asset (in this case an individual stock or group of stocks) with the return on the S&P 500 divided by the variance of the returns on the S&P 500. This statistical measure is intended to provide investors with insight regarding expected volatility of a security (or portfolio of securities) as it relates to market volatility. A beta of less than one implies less expected volatility than the market with the trade-off of a lower expected return than the market. The reverse is expected for a beta greater than one.

Q. What beta do you consider appropriate based on current market conditions?

A. Approximately 0.75.

Q. Based on your CAPM analysis, what is the estimated COE for Spire Inc. and the LDC group?

A. Spire Inc.'s COE is between approximately 6.9% to 8.2%, which is much higher than the 5.5% and 6.75% results from the 2021 rate case. The average beta for the LDC group is the same as Spire's so the COE estimates for the LDC group also ranges from 6.9% to 8% (see Schedules DM-D-9).

[30] First Quarter 2022 Survey of Professional Forecasters, Philadelphia Federal Reserve Board (Feb. 11, 2022), First Quarter 2022 Survey of Professional Forecasters (philadelphiafed.org) and John Bilton et al., *Executive Summary: 2022 Long-Term Capital Market Assumptions*, J.P.Morgan (Nov. 8, 2021), 2022 Long-Term Capital Market Assumptions Executive Summary (jpmorgan.com).

P

Q. Are there any other reasonableness tests to show your COE estimates are rational and logical?

A. Yes. First, as I indicated earlier in my testimony, a simple rule of thumb the Chartered Financial Analyst ("CFA") suggests in its curriculum to estimate the COE is to add 3% to 4% risk premium to a company's bond yield to provide a fairly simple, but objective cost of equity. Being that the investment community views utility stocks as bond surrogates/substitutes, it is logical and reasonable to not add a risk premium any higher than 3% to the bond. Applying a 3% risks premium to the average Moody's 'A' and 'Baa' utility bond yields since June 1, 2022 of 4.77% and 5.12%, respectively, implies a COE range of 7.77% to 8.12%, again, implying my multi-stage DCF COE estimates may be too low.

Second, one just needs to think about the basic characteristics of utility stocks, which is that investors view them as yield investments. A Bernstein analysis showed that between 1974 to 2010, approximately 68% of returns from utility stocks were from the income received through dividends, with the remaining from capital gains.[31] Even assuming Spire Inc. had sustainable investment opportunities to allow it to generate 50% of returns from capital gains, this would translated into a 7.4% expected return based on Spire Inc.'s current dividend yield of 3.7%. However, this expected return is not consistent with Spire Inc.'s current dividend payout ratio of approximately 70.52% (2.74/3.89). This implies around a 1/3 of Spire Inc.'s total return should comprise of capital gains. This equates into an expected return of approximately 5.55%, which implies my multi-stage DCF COE estimates are too high.

Q. Based on your analysis and understanding of the LDC industry's current COE, as well as the relative difference between the LDC industry's COE and the electric utility industry's COE, what would be a fair and reasonable allowed ROE in this case?

A. 9.25% based on a range of 9.0% to 9.25% is fair and reasonable.

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

CAPITAL STRUCTURE

Q. Will you briefly explain capital structure?

A. Capital structure represents how a company's assets are financed. The typical capital structure consist of common equity, long-term debt, and short-term debt. Although some operating utility subsidiaries may continue to have outstanding preferred stock, this is becoming much rarer under circumstances in which the operating subsidiary's holding company issues capital other than common equity. This is also true for Spire Missouri and Spire Inc. Although short-term debt is a typical component of a utility company's capital structure, if it is fully supporting CWIP, then it is typically excluded from the rate making capital structure and reflected in the allowance for funds used during construction (AFUDC) rate. However, this is has not been true for Spire Missouri.

CAPITAL STRUCTURE RECOMMENDATION

Q. Are you recommending the same general approach for setting Spire Missouri's ratemaking capital structure as you did in Spire Missouri's last rate case?

A. Yes. I still recommend consideration of Spire Inc.'s consolidated capital structure to determine fair and reasonable ratemaking capital structure ratios to set Spire Missouri's authorized ROR. For clarification, I am not recommending Spire Inc.'s consolidated capital costs and specific capital components be used to set Spire Missouri's ROR. In fact Spire Inc.'s capital structure consists of preferred stock and convertible equity units. If I had recommended Spire Missouri's ROR be set based on these capital components and costs, my ROR recommendation would have been lower, because Spire Inc. has been able to achieve a more cost efficient capital structure issuing these alternative rather than traditional common stock. I analyze Spire Inc.'s capitalization ratios to test the reasonableness of Spire Missouri's capital structure ratios. Spire Inc.'s capital structure provides the most transparent, objective and market-based insight as to the most efficient proportion of debt Spire Missouri's low-risk regulated natural gas utilities actually support.

Q. What capital structure do you recommend for purposes of setting Spire Missouri's rate of return (ROR)?

A. I recommend a capital structure that consists of approximately 45% common equity, 48% long-term debt, and 7% short-term debt. This capital structure is the same as my recommended capital structure in my True-Up Direct Testimony in Case No. GR-2021-0108, which captured data through the Commission-ordered true-up date, May 31, 2021, in that case, which is the same as the Commission-ordered test year in this case. My recommended common equity ratio is higher than the approximate 40.36% common equity ratio Spire Inc. has maintained the last three years when including short-term debt, but lower than the approximate 48.77% common equity ratio (preferred stock assigned 50/50 weighting to common equity and long-term debt) maintained at Spire Inc. the last three years when excluding short-term debt.[32]

Q. Did you attach schedules to your testimony showing the analysis you performed to determine the capital structure ratios you consider the most reasonable for purposes of setting Spire Missouri's ROR?

A. Yes. Schedules 10 and 11 attached to my testimony provide the quantitative details I analyzed to support my capital structure recommendation.

Q. What is the basis for this capital structure recommendation?

A. My recommended capital structure is consistent with Spire Inc.'s consolidated capital structure ratios, net of short-term debt adjusted for CWIP balances. This capital structure best represents the amount of debt capacity Spire Inc. considers reasonable and appropriate for its regulated utility assets, including Spire Missouri. Use of this capital structure ensures that Spire Missouri receives credit for the debt capacity its assets actually support. Since Spire Inc. acquired Alagasco (now Spire Alabama) on September 2, 2014,[33] Spire Inc.'s main goal relative to its capitalization strategy has been to reduce the amount of leverage it carries on a consolidated basis in order to show improvement in Spire Inc.'s

[32] See Schedule DM-D-9-1
[33] Spire Inc.'s 2014 SEC 10-K Filing.

P

consolidated credit metrics. Obviously, this can't be achieved if Spire Missouri used more leverage for its own benefit or else this would cancel any benefit to Spire Inc. reducing leverage at the holding company. Consequently, Spire Missouri's capital structure is not managed for the best interest of Spire Missouri, but rather for the best interest of Spire Inc. Spire Missouri's targeting of a higher common equity ratio for ratemaking, rather than for changes in business risk and/or economic conditions, contradicts one of the primary purposes of managing a capital structure – to achieve the lowest reasonable cost without jeopardizing financial stability. As I will discuss later in my testimony, Spire Missouri's lower business risk affords it the ability to utilize more leverage, but for its affiliation with Spire Inc. and its decisions to use significant leverage to pursue and execute its acquisitions of other companies.

Q. What capital structure has Spire Inc. managed for purposes of taking advantage of debt capacity afforded by Spire Inc.'s low-risk regulated utility subsidiaries?

A. Spire Inc. has managed its own consolidated capital structure for purposes of taking advantage of debt capacity afforded by Spire Inc.'s low-risk regulated utility subsidiaries. Spire Inc. issued a significant amount of holding company debt for purposes of acquiring Alagasco in 2014. This acquisition caused Spire Inc.'s common equity ratio to drop from 51.46% at the end of the 2013 fiscal year to 41.36% at the end of the 2014 fiscal year.[34] While it is true none of the proceeds from holding company debt were used for purposes of investing in Spire Missouri, this should not form the basis for determining whether this debt should be considered for purpose of determining a fair and reasonable capital structure to set Spire Missouri's allowed ROR. If not for Spire Missouri's and Spire Alabama's low-risk regulated utility operations, Spire Inc. would not be able to carry this much leverage and maintain strong investment grade credit ratings. In fact, Moody's indicated the following about Spire Inc.'s ability to service this debt:

> The roughly $31 million of annual parent level interest expense is essentially a fixed obligation that is generally serviced by the utilities, since the unregulated net income and distributable cash of Spire Inc.'s other

[34] Schedule DM-D-10, p. 2.

P

unregulated businesses, such as Spire Marketing, can be more volatile, less certain and insufficient to service the debt.[35]

In essence, Spire Inc. has used Spire Missouri's (and Spire Alabama's) debt capacity to enhance its shareholder returns utilizing a sizeable amount of leverage to acquire Spire Alabama. Authorizing Spire Missouri a lower common equity ratio and a corresponding higher debt ratio, along with its lower cost, would reduce the amount of cash flow Spire Inc. has available for holding company debt capacity.

Q. What proof do you have that Spire Missouri's debt capacity is impaired by the holding company's use of leverage?

A. The rating agencies observations of the impact Spire Inc.'s holding company debt has on Spire Missouri's financial flexibility. For example, in aforementioned Moody's report on Spire Missouri it explicitly indicated that Spire Inc.'s substantial amount of holding company debt puts pressure on Spire Missouri to provide upstream dividends to support the holding company's debt serviced needs.[36] S&P assigns Spire Missouri a corporate credit rating of 'A-' rather than its hypothetical stand-alone credit profile of 'A+' because of its association with Spire Inc.'s higher financial risk associated with its use of leverage, as well as its higher-risk non-regulated operations.

Q. How can this be looked at differently?

A. If Spire Missouri had issued the debt rather than Spire Inc., its corporate credit rating would be the same because Spire Inc.'s consolidated debt levels would be the same, rather the debt was issued directly by the subsidiaries. Of course, if this debt were recognized in the authorized capital structure, then Spire Missouri's ratepayers would be charged less for a lower ROR associated with the more cost efficient capital structure, which would reduce the amount of cash flow available to distribute to Spire Inc. However, at least Spire Missouri's reduced financial flexibility would be due to use of leverage for its own

[35] Moody's Credit Opinion on Spire Missouri, April 1, 2021.
[36] *Id.*

investment rather than Spire Missouri's debt capacity being misappropriated to Spire Inc. for purposes of funding acquisitions.

Q. Does Spire Inc. use the creditworthiness conferred to it from its regulated LDC companies to directly support credit for its non-regulated subsidiaries?

A. Yes. Spire Inc. explicitly guarantees obligations for the following entities: Spire Storage West LLC, Spire Marketing Inc. and Spire STL Pipeline LLC.

Q. Why do you think using Spire Inc.'s consolidated capital structure as a guide is more appropriate than making adjustments to Spire Missouri's current book value capital structure?

A. Because it is impossible to unwind all of the transactions that have occurred to determine how Missouri Gas Energy ("MGE") was originally capitalized, which is the intent of such regulatory exercises. Unlike the original Spire East assets, which had been organically funded by capital issued by Spire Missouri, this has not been the case for the Spire West system for at least 25 years. Because the Spire West system was owned directly at the parent level (not a subsidiary corporation) by its previous owner, Southern Union, no legacy debt (and therefore, capital structure) followed MGE, as it was an asset acquisition. If MGE had been a separate subsidiary corporation with its own capital structure, then Spire Inc. could have issued all of the capital for the acquisition, much like it did for Alagasco.

Q. Does this mean that Spire Missouri's capital structure already contains capital that wasn't used to invest organically into Spire Missouri's system?

A. Yes.

Q. Did you opine on this lack of an identifiable original capital structure in Spire Missouri's 2017 rate case?

A. Yes. I indicated the following:

> Spire Missouri's capital structure ideally would represent the financing that had been issued to directly fund capital expenditures in Spire Missouri's utility systems. But as we know from Spire Missouri's acquisition of MGE's assets, this is not the case. Spire Missouri acquired MGE from Southern Union on September 1, 2013. Because MGE was not a subsidiary corporation that issued its own debt, no legacy debt followed MGE. Consequently, the debt issued by Spire Missouri and the equity issued by Spire Inc. essentially recapitalized the system. However, now that Spire Missouri owns both the MGE and LAC systems, all of the funding issued to complete the acquisition of the MGE assets is now consolidated with all of Spire Missouri's securities. This was very similar to what transpired in Spire Inc.'s other acquisitions, except for the fact that Spire Inc. issued all of the capital, including the debt capital.
>
> The details of post-acquisition capital structures of utilities generally get muddied over the long run. Consequently, an attempt to reconcile capital issued to capital expenditures in the systems is futile. Traditional ratemaking typically assumes that the rate base can be reconciled with the capital in the capital structure. This is no longer possible after utility systems change owners and additional capital is issued to acquire the systems. While some would claim that if the transaction occurred solely at the utility holding company level, this allows for the original capital in the subsidiary corporation to be undisturbed, this ignores the fact that the capital issued at the holding company impacts the risk profile of the subsidiary. If the holding company's capital structure had consistent financial risk with that of the subsidiary, then it would be reasonable to use a subsidiary capital structure. However, when the subsidiary is affiliated with a holding company that has a more leveraged capital structure, then the subsidiary's less leveraged capital structure no longer attracts debt at costs consistent with its more conservative capital structure. This fact should be given consideration when determining the appropriate capital structure to use when setting the utility company's allowed ROR.[37]

Q. Do the above complications apply even if goodwill is removed from the capital structure?

A. Yes. Spire Missouri's capital costs are impacted by the use of holding company leverage regardless of the attempt to reconcile funding sources and uses. As cost of capital experts (including company ROR witnesses) frequently recognize in determining a fair and reasonable ROR, it is not the source of the capital that defines the cost of the capital, but it is the risk of the investment. Spire Inc.'s liberal use of leverage to capitalize its acquisitions

[37] Case No. GR-2017-0215, Staff Cost of Service Report, pages 25-26.

P

of regulated local gas distribution companies proves that these assets can and do support much higher amounts of leverage than that which is recognized in setting a fair and reasonable ROR for ratemaking. Not recognizing such, is unfair to ratepayers.

Q. If you adjusted Spire Inc.'s common equity balance by the amount of goodwill on its books, what is its indicated average common equity ratio for the period September 30, 2019 through May 31, 2021?

A. 25.91% without adjusting preferred stock, equity units and short-term debt. 30.5% after adjusting for preferred stock, equity units and short-term debt related to CWIP and Storm Uri[38]

Q. Why is Spire Inc.'s goodwill adjusted common equity ratio so low?

A. Because Spire Inc. paid a sizeable premium for Alagasco (now Spire Alabama). Spire Inc. booked $727.6 million of goodwill for the Alagasco purchase in 2014, which equates into an approximate 51% premium over the book value of Spire Alabama's assets as of September 30, 2014.[39] Spire Inc. booked $218.9 million of goodwill for the EnergySouth purchase in 2016, which equated into an approximate 79% premium over the book value of EnergySouth as of December 31, 2016.[40] The combined goodwill balances associated with Spire Alabama, Spire EnergySouth and Spire Missouri results in a consolidated goodwill asset value of $1.17 billion, which represents approximately 14% of Spire Inc.'s total assets as of September 30, 2020.

Q. If all of Spire Inc.'s regulated local gas distribution operations can support this much debt at the holding company, why not just issue this debt at the subsidiary level?

A. Because this would upset the balance of the capital structure at the subsidiary, which is primarily managed for ratemaking purposes. It is obvious from Spire Inc.'s use of leverage

[38] Schedule DM-D-11, p. 1.
[39] Laclede Group 2014 SEC 10-K Filing, p. 39.
[40] Spire Gulf and Spire Mississippi regulatory financial statements as of December 31, 2016.

at the holding company to finance its acquisition of these regulated utility assets, they can support much more leverage.

Q. What would happen if regulators recognized the true debt capacity associated with the regulated utility subsidiaries in determining an authorized ROR?

A. This would reduce the amount of cash flows generated by the utility properties, which would provide less cash flow to support the ability of the holding company to issue debt to leverage shareholder returns. However, if the holding company reduced the amount of debt it issued, then this would improve the consolidated company's financial stability and flexibility.

Q. Is this self-correcting balance eliminated when regulators ignore the use of leverage at the holding company?

A. Yes. If a company's management knows regulators will ignore holding company debt and continue to authorize capital structures based on subsidiary per books capital structures, then they can target such for ratemaking and use these more costly capital structures to support debt issued by the holding company.

Q. Are other companies in your LDC proxy group organized in a fashion that creates transparency and trust in the consolidated company's real capital structure rather than the disparity that exists between Spire Inc.'s consolidated capital structure and that of Spire Missouri?

A. Yes. ONE Gas and Atmos are not organized as holding companies that own regulated utility assets under separate subsidiary corporations. Consequently, to the extent that they desire their commissions to recognize a higher common equity ratio in their ratemaking capital structures, they have to issue equity to third-party shareholders. In a recent report addressing Atmos' capital structure, Bank of America indicated the following:

> While mgmt. is likely to defer equity needs as much as possible and be opportunistic in the market, another potential solution could be to establish a HoldCo. structure. That said, mgmt. has been somewhat opposed to this

P

in the past given the impact to leverage and minimization of questions from regulators on the equity capitalization.[41]

A review of Spire Inc. transactional structures for acquiring the MGE systems compared to the Alagasco System reveals the disparate treatment of regulatory capital structures based solely on how a company is organized and at what level it makes its acquisitions. If Spire Inc. owned all of its LDC assets directly, then all of the capital funding the acquisitions would require third-party investors. Because the LDCs would be funded directly by the parent company, only real third-party equity would be considered in the ratemaking capital structure. To the extent this capital structure is more conservative, this directly benefits the LDCs because of the financial stability and flexibility this capital structure affords. However, this stability and flexibility comes at the expense of existing shareholders due to dilution of their ownership, but only until the higher equity ratio is recognized in a subsequent rate case.

Q. What evidence can you provide that shows Spire Missouri's capital flows are not managed as if it were a stand-alone entity?

A. If Spire Missouri's capital structure were being managed for its own benefit, then one would expect that it would have a carefully managed dividend payment policy, similar to how Spire Inc. manages its dividend payments to a targeted payout ratio in the range of 55% to 65%. However, over the last six years, Spire Missouri's dividend payout ratio has ranged from 0% in the 2021 fiscal year to 80% in the 2016 fiscal year, with payouts of between 25% to 42% in fiscal years in between 2016 to 2021. If Spire Missouri were financially managed as a stand-alone entity accountable to third-party equity investors, it would be required to maintain a higher and more consistent payout ratio, similar to how Spire Inc. manages its dividends. Spire Missouri's retention of a significant amount of its earnings in recent years results in Spire Missouri's capital structure not receiving the benefit of the use of debt rather than retaining equity to meet it cash deficiencies.

[41] Julien Dumoulin-Smith, et. al., "Gas LDC 1Q21EPS preview: The day after the storm; measuring the Feb Uri," Bank of America, April 19, 2021.

Q. What other tools allow Spire Inc. to manage its subsidiaries' common equity ratios?

A. First, I should emphasize that technically, Spire Inc. does not specifically manage all of Spire Inc.'s subsidiaries, rather this function is performed by Spire Missouri employees that lend their services to Spire Inc. and its other subsidiaries.

Spire Inc. has a consolidated commercial paper program backed by a consolidated credit facility with borrowing sub-limits for Spire Inc., Spire Missouri, and Spire Alabama. Investors purchase Spire Inc.'s commercial paper issuances and then Spire Inc. loans these proceeds to its subsidiaries through intra-company short-term loans. Being that Spire Missouri and Spire Alabama have been retaining a significant amount of cash flow for reinvestment, Spire Inc. has not received sufficient cash from its subsidiaries to fund the payment of its dividend to third-party shareholders. For example, in 2021, between Spire Alabama and Spire Missouri, Spire Inc. only received $44 million of dividends despite the fact that it paid $148 million of dividends to third-party shareholders. While Spire Marketing earned $40 million during Storm Uri, assuming 100% of these funds were distributed to Spire Inc. to fund dividend, this still results in a $64 million shortfall in internal dividends available for Spire Inc. to pay dividends to third-party shareholders.

Q. Why do you consider Spire Inc.'s equity ratio to be the most appropriate for setting Spire Missouri's allowed ROR?

A Spire Inc. allocates capital to its companies to target and achieve ratemaking common equity ratios. The most objective and practical measure of the capital structure that captures the debt capacity of Spire Inc.'s regulated utility assets, is that of Spire Inc. on a consolidated basis. Consequently, this is why I recommend Spire Missouri's common equity ratio be set no higher than that which Spire Inc. typically considers reasonable for its consolidated capital structure, which is around 45%.

Q. What cost of long-term debt should be applied to your recommended capital structure?

A. I recommend applying Spire Missouri's embedded cost of long-term debt of 3.99% at May 31, 2021 to my recommended debt ratio of 48%. I will updated this cost of debt along with my recommended capital structure when true-up financial data through September 30, 2022 is available.

Q. What cost of short-term debt do you recommend applying to the ratio of short-term debt in your recommended capital structure?

A. 2.7% based on the approximate cost of 30-day A2/P2 commercial paper in late August 2022. At June 30, 2022, Spire Missouri's cost of short-term debt was 2.0% as of June 30, 2022.[42] Spire Missouri's short-term debt consists of affiliate notes from Spire Inc. Spire Inc.'s cost of short-term debt is also 2.0%, which comprises commercial paper issued to third-parties. Spire Inc.'s commercial paper is rated A2/P2. The current required yield on 30-day commercial paper rated A2/P2 is currently around 2.7%. The increase in commercial paper rates is a direct consequence of the Federal Reserve's increase of the Fed Funds by 75 basis points (0.75%) on July 28, 2022.

Q. Will Spire Missouri's cost of short-term debt fluctuate subsequent to the effective date of rates in this case?

A. Yes. The future path of short-term rates is difficult to predict. While investors still expect the Fed to increase the Fed Funds rates a few more times through mid-2023 to approximately 3.5% to 3.75%,[43] investors also anticipate that the Fed will start reducing rates shortly thereafter if inflation is under control and higher short-term rates are too restrictive for the economy. If the Fed Funds rate reaches this level, then Spire Inc.'s commercial paper costs may reach approximately 3.9% at their peak. However, rates should only remain this high for a short period. Due to the uncertainty of the path of short-

[42] Spire Inc. SEC Form 10-Q Filing, June 30, 2022, p. 32.
[43] Countdown to FOMC: CME FedWatch Tool (cmegroup.com)

term rates, I recommend the Commission use the most recent known cost of commercial paper, which is 2.7%.

DISCUSSION REGARDING THE CAPITAL STRUCTURE ORDERED BY THE COMMISSION IN CASE NO. GR-2021-0108

Q. What was the main dispute as it relates to Spire Missouri's ratemaking capital structure in the 2021 rate case?

A. Whether short-term debt should be included in the authorized ratemaking capital structure and whether the inclusion of this short-term debt should dilute (i.e. reduce) the authorized common equity ratio.

Q. Did this dispute relate to your recommended ratemaking capital structure?

A. No. I recommended Spire Missouri's ratemaking capital structure be set consistent with Spire Inc.'s average capitalization ratios for the test year period (12-months ended September 30, 2020), updated through the Commission ordered true-up date, May 31, 2021. My updated true-up capital structure recommendation was not based on a snapshot at May 31, 2021, but rather considered whether more recent capital structure ratio balances implied a fundamental change to the management of Spire Inc.'s targeted capital structure ratios. My final recommended ratemaking capital structure for Spire Missouri consisted of 45% common equity, 48% long-term debt and 7% short-term debt.

Q. What was the basis for the Commission's authorized ratemaking capital structure?

A. The Commission ordered the use of Spire Missouri's common equity and long-term debt balances at the true-up date, May 31, 2021, with the inclusion of the amount of short-term debt that exceeded assets identified in company witness, Adam Woodard's Schedule AWW-SR-2. Therefore, the figures used to set Spire Missouri's authorized capital structure were those provided by Mr. Woodard.

Q. Is May 31, 2021 the ordered test year in this rate case?

A. Yes.

Q. Is it still your position that the Commission should set Spire Missouri's ROR based on your recommended capital structure in your true-up testimony in the 2021 rate case?

A. Yes.

Q. Despite this still being your position, can you explain the adjustments made to Mr. Woodard's Schedule AWW-SR-2 to effectuate the Commission's decision in the 2021 rate case?

A. Yes. The Commission's Order stated:

> The Commission finds that the appropriate capital structure to use for ratemaking purposes is that of Spire Missouri, modified to address the inclusion of short-term debt. The Commission finds that Spire Missouri's short-term debt is being used to finance long-term assets. Therefore, it is appropriate to include short-term debt in the capital structure of Spire Missouri used for ratemaking. However, the average short-term debt amount presented by OPC, which is the 13-month average short-term debt in excess of short-term assets, included both short-term assets and short-term debt associated with Winter Storm Uri. The Commission finds that it is not appropriate to include short-term assets and short-term debt associated with Winter Storm Uri in the capital structure. The Spire Missouri capital structure should be determined based on the equity and long-term debt as of May 31, 2021, and the average short-term debt in excess of short-term assets over the 13-month period ending May 31, 2021, excluding both short-term assets and short-term debt related to Winter Storm Uri during the months of March, April and May, 2021.[44]

The Commission's Order clearly adopted Mr. Woodard's recommended use of Spire Missouri's common equity and long-term debt balances as of May 31, 2021. Mr. Woodard provided these balances on page 2, lines 6-10 of his True-up Direct Testimony. The parties disputed the impact of the Commission's Order on the proper amount of short-term debt to

[44] Case No. GR-2021-0108, Amended Report and Order, November 12, 2021, p. 96.

P

include as well as whether the short-term debt should be added to the total common equity and long-term debt balances or substituted for long-term debt.

Q. The Commission's Order indicates that you presented a 13-month average of short-term debt net of short-term assets. Did you create the original schedule that presented this information?

A. No.

Q. Who did?

A. Mr. Woodard.

Q. How and when did he present this information?

A. He attached this information as Schedule AWW-S-2 to his surrebuttal testimony filed on June 17, 2021 in Case No. GR-2021-0108. Mr. Woodard testified as follows:

> The average of all short-term assets exceeded short-term debt after taking into consideration the funding of $250 million of new long-term debt during the test year. In the 20-month period ending May 31, 2021 (test year plus true-up period) the average short-term debt exceeded short-term assets by approximately ** ____ _____ **. However, this takes into account the unusually high short-term assets and liabilities associated with Winter Storm Uri as evidenced by the end of May 2021 actual balances ($195 million deferred gas costs associated with OFO penalties). Pursuant to the "point in time" analysis, short-term assets exceeded short-term debt in close to half the 15 months of this period (9 of 20 months).[45]

[45] Case No. GR-2021-0108, Woodard Surrebuttal, p. 17, lns. 7-15.

P

Q. What adjustments did you make to Schedule AWW-S-2 for purposes of your presentation of average short-term debt in excess of short-term assets?

A. I eliminated Mr. Woodard's hypothetical assumption that $250 million of new long-term debt issued in May 2021[46] reduced the short-term debt outstanding for the prior 20 months (September 2019 through May 2021).

Q. Did Mr. Woodard's Schedule AWW-S-2 adjust for impacts related to Storm Uri?

A. Yes. While Mr. Woodard's Schedule AWW-S-2 included additional short-term debt incurred to finance Storm Uri, it also included the extraordinary gas costs (see item "Deferred Gas Costs – OFO [Operational Flow Order] cover charge & penalties" in Schedule DM-D-12, p. 2) and deferred purchase gas costs as an offset to the additional short-term debt.

Q. Although Mr. Woodard's original Schedule AWW-S-2 already adjusted short-term debt for the $195.8 million of excess deferred gas costs, did the parties eliminate the $250 million term loan and the $195.8 million of excess deferred gas costs for purposes of determining short-term debt in excess of the short-term assets Mr. Woodard included in his schedule?

A. Yes. Paragraph 293 (p. 87) of the R&O recognized these amounts as associated with Storm Uri. Therefore, in order to implement the Commission's decision, Mr. Woodard's Schedule AWW-S-2 was simply adjusted to remove these amounts from the 13-month average.

Q. Did Spire Missouri provide any updated information in this case as it relates to Mr. Woodard's Schedule AWW-S-2?

A. Yes. In response to OPC Data Request No. 3011, Spire Missouri provided information for the accounts listed in Mr. Woodard's Schedule AWW-S-2. The unamortized PGA

[46] Spire Missouri issued $305 million of long-term debt in May 2021, but $55 million of the proceeds were used to redeem first mortgage bonds due March 15, 2023 (Source: Spire Inc. SEC Form 10-Q, June 30, 2021, p. 32).

balances provide in this DR response are different from those shown in Mr. Woodard's Schedule AWW-S-2 from the 2021 rate case. I am not sure why these balances changed. The CWIP balances provided in response to OPC DR No. 3011 are substantially the same with the exception that the DR response included amounts booked to the account "Preliminary Survey & Investigation." The balances of the other accounts listed in Mr. Woodard's Schedule AWW-S-2 are the same.

Q. If you updated Mr. Woodard's Schedule AWW-S-2 for the revised unamortized PGA balances, what is the balance of short-term debt in excess of the assets?

A. $254,178,757 as compared to the $259,950,225 determined for purposes of the 2021 rate case (*see* Schedule DM-D-12, p. 1).

Q. How would this change to Mr. Woodard's identified short-term assets in Schedule AWW-S-2 from the 2021 rate case impact the Commission's authorized capital structure?

A. It results in a 49.95% common equity ratio, 42.07% long-term debt ratio and 7.99% short-term debt ratio. This compares to the following authorized ratios in the 2021 rate case: 49.86% common equity, 41.99% long-term debt and 8.15% short-term debt. Schedule DM-D-13 shows a side-by-side comparison of these capital structures.

Q. Are you aware that Spire Missouri has proposed a new approach in this case for purposes of comparing short-term debt as it relates to short-term assets?

A. Yes. Spire Missouri proposed a revised approach in its Direct Testimony in this rate case. I will address Spire Missouri's revised approach in my rebuttal testimony.

Q. Subsequent to the Commission's 2021 R&O, have some investors tempered their expectations of the Commission authorizing Spire Missouri a higher common equity ratio going forward?

A. Yes. Analysts, such as Guggenheim's Shahriar Pourreza, have admitted that their expectations of an authorized 54% equity ratio may have been too optimistic.[47] I am not aware of many analysts factoring in the potential impact on Spire Inc.'s earnings if short-term debt is reflected in an authorized capital structure, but this is likely due to the fact that Spire Inc. never communicated this possibility to them. This is a bit surprising considering the fact that before Spire Missouri recommended including natural gas inventories in rate base in its 2017 rate case, its allowed return for gas inventories was premised on a short-term debt cost. Natural gas inventories had not been included in rate base since 2002. When gas inventories were in rate base, Spire Missouri (then Laclede Gas Company) recommended including short-term debt in its capital structure for purposes of determining its revenue requirement. Apparently Spire never communicated this fact to its investors.

Q. Was the Commission's authorized 49.86% authorized common equity ratio unreasonable?

A. No. Despite Spire Inc.'s communications to investors that it expected the Commission would continue to authorize a higher common equity ratio for ratemaking, a common equity ratio of around 50% is entirely reasonable. In fact, Spire's Mississippi natural gas distribution assets are authorized a 50% common equity ratio. Also, to the extent Spire Inc. considers a 50% common equity ratio to be unreasonable, then this certainly causes me concern about Spire Inc.'s much more leveraged consolidated capital structure.

[47] Shahriar Pourreza, CFA, "SR: Missouri Regulatory Deterioration Hits Spire Hard; Lowering Estimates, Shares Already Reflect Outcome," Guggenheim Securities, LLC, November 15, 2021.

Q. Despite Spire Inc.'s corporate structure, could it not capitalize itself more conservatively?

A. Yes, but this would not allow it to concentrate the earnings from its utilities to fewer shares outstanding.

Q. Did Spire Inc.'s capital structure become more leveraged through May 31, 2021, despite Spire Missouri's capital structure being managed to target a 54.28% common equity ratio?

A. Yes. My true-up direct testimony addressed the fact that Spire Inc.'s common equity ratio declined as of the ordered true-up period. Because Spire Inc. considered traditional common equity to be too costly in early 2021, it chose to issue equity units rather than traditional common equity shares. Spire Inc.'s careful consideration of the most cost efficient forms of capital to issue as it relates to its own capital structure highlights the skepticism the Commission should show regarding Spire Inc.'s steadfast commitment to a static 54.28% common equity ratio for Spire Missouri regardless of capital market conditions. If a more equity-rich capital structure is too costly for Spire Inc., then the same consideration should hold true for Spire Missouri and its ratepayers.

Q. What was the average and range of authorized common equity ratios for gas distribution utilities in the first half of 2022?

A. 50.21% with a range of 48% to 54.5%.[48]

SUMMARY AND CONCLUSIONS

Q. Can you summarize your main conclusions and views as it relates to an authorized ROR in this case?

A. Yes. Other than updating Spire Missouri's cost of short-term debt, there are few compelling reasons for the Commission to fundamentally change its decision on ROR from

[48] RRA Regulatory Focus, "Major energy rate case decisions in the US – January-June 2022," July 27, 2022, Table 5.

P

the 2021 rate case. A common equity ratio of approximately 50% is above the common equity ratio Spire Inc. targets for its own consolidated capital structure. If an equity-rich capital structure is critical to Spire Missouri's financial stability, then Spire Inc. should demonstrate a commitment to improve the consolidated capital structure. The Commission can incentivize Spire Inc. to improve its balance sheet by setting Spire Missouri's authorized common equity ratio consistent with that of Spire Inc. Spire Missouri's ratepayers should not be charged for an expensive capital structure that only serves to support Spire Inc.'s ability to leverage its returns. An authorized ROE of 9.37% is more than sufficient and is actually above recent authorized ROEs for other gas utilities.

Q. Does this conclude your testimony?

A. Yes.

P

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Spire Missouri, Inc. d/b/a Spire's Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company's Missouri Service Areas	))))))	Case No. GR-2022-0179

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

David Murray, of lawful age and being first duly sworn, deposes and states:

1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 31st day of August 2022.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #15637121

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.