BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

CENTERPOINT ENERGY ARKLA, EX PARTE

DOCKET NO. U-_____

In Re: Application for Renewal of CenterPoint Energy Arkla's Rate Stabilization Plan Rider RSP-1 for an additional Three-Year Term.

PRE-FILED DIRECT TESTIMONY

OF

ANN E. BULKLEY

ON BEHALF OF

CENTERPOINT ENERGY RESOURCES CORP.
D/B/A CENTERPOINT ENERGY ARKLA

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I. INTRODUCTION AND OVERVIEW

Q. What is your name, business address, and position?

A. My name is Ann E. Bulkley. I am a Principal at The Brattle Group (Brattle). My business address is One Beacon Street, Suite 2600, Boston, Massachusetts 02108.

Q. Please describe your educational background, as well as your business and professional experience.

A. I hold a Bachelor's degree in Economics and Finance from Simmons College and a Master's degree in Economics from Boston University, with over 25 years of experience consulting to the energy industry. I have advised numerous energy and utility clients on a wide range of financial and economic issues with primary concentrations in valuation and utility rate matters. Many of these assignments have included the determination of the cost of capital for valuation and ratemaking purposes. My resume and a summary of testimony that I have filed in other proceedings, including previously before the Commission, are included as **Exhibit AEB-1** to this testimony.

Q. On whose behalf are you testifying?

A. I am submitting this Direct Testimony before the Louisiana Public Service Commission ("Commission" or "LPSC") on behalf of CenterPoint Energy Resources Corp. ("CERC") d/b/a CenterPoint Energy Arkla in North Louisiana ("CenterPoint Energy Arkla" or the "Company").

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to evaluate the appropriateness of the Company's proposal to maintain its current authorized Return on Equity ("ROE") midpoint of 9.95 percent[1] and overall rate of return to be used for ratemaking purposes as part of its request to renew its Rate Stabilization Plan Rider RSP-1 ("RSP"). In doing so, I present evidence regarding the cost of equity range required by equity investors to invest in CenterPoint Energy Arkla in today's capital market environment, and assess the Company's current authorized midpoint ROE relative to that range. I also address the appropriateness of the Company's proposal to maintain its currently authorized hypothetical capital structure, and assess the reasonableness of continuing to use the most recent actual long-term and short-term debt.

Q. Was your testimony, including associated schedules and exhibits, prepared by you or under your control and direction?

A. Yes. My analyses and recommendations are supported by the data presented in Exhibits AEB-2 through 15, which were prepared by me or under my direction.

[1] The Company's current RSP includes an ROE bandwidth of 9.45 percent to 10.45 percent, with a midpoint of 9.95 percent.

Q. Please provide a brief overview of the analyses that led to your ROE recommendation.

A. As discussed in more detail in Section VI, I applied the Constant Growth form of the Discounted Cash Flow ("DCF") model, the traditional and empirical forms of the Capital Asset Pricing Model ("CAPM"), and the Bond Yield Plus Risk Premium approach. My recommendation also takes into consideration: (1) CenterPoint Energy Arkla's small size relative to the proxy group; (2) the Company's capital expenditure requirements; (3) the increased risk associated with the prevalence of severe weather in the Company's service territory; (4) the regulatory environment in which the Company operates, including its RSP; and (5) the costs associated with issuing common stock (also referred to as "flotation costs"). Finally, I considered the Company's proposed capital structure as compared to the capital structures of the proxy companies.[2]

Q. How is the remainder of your Direct Testimony organized?

A. Section II provides a summary of my analyses and conclusions. Section III reviews the regulatory guidelines pertinent to the development of the cost of capital. Section IV discusses current and projected capital market conditions and the effect of those conditions on CenterPoint Energy Arkla's cost of equity in Louisiana. Section V explains my selection of a proxy group of natural gas utilities. Section

[2] The selection and purpose of developing a group of comparable companies will be discussed in detail in Section V of my Direct Testimony.

VI describes my analyses and the analytical basis for my recommended ROE range for CenterPoint Energy Arkla. Section VII discusses the specific regulatory and business risks that have a direct bearing on the ROE to be authorized for CenterPoint Energy Arkla in this case. Section VIII assesses the proposed capital structure, cost of debt and overall rate of return of CenterPoint Energy Arkla. Lastly, Section IX presents my conclusions and recommendations for the market cost of equity and capital structure.

II. SUMMARY OF ANALYSIS AND CONCLUSIONS

Q. Please summarize the key factors considered in your analyses, upon which your recommendation is based.

A. In developing my recommended ROE for CenterPoint Energy Arkla, I considered the following:

- The United States Supreme Court's *Hope* and *Bluefield* decisions[3] that established the standards for determining a fair and reasonable allowed ROE for public utilities, including consistency of the allowed return with the returns of other businesses having similar risk, adequacy of the return to provide access to capital and support credit quality, and the requirement that the result lead to just and reasonable rates.
- The effect of current and prospective capital market conditions on the cost of equity estimation models and on investors' return requirements.
- The results of several analytical approaches that provide estimates of the Company's cost of equity, including the Constant Growth DCF model, the traditional and empirical forms of the CAPM, and the Bond Yield Plus Risk Premium approach. Because the Company's authorized ROE should be a

[3] *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944, "Hope"); *Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923, "Bluefield").

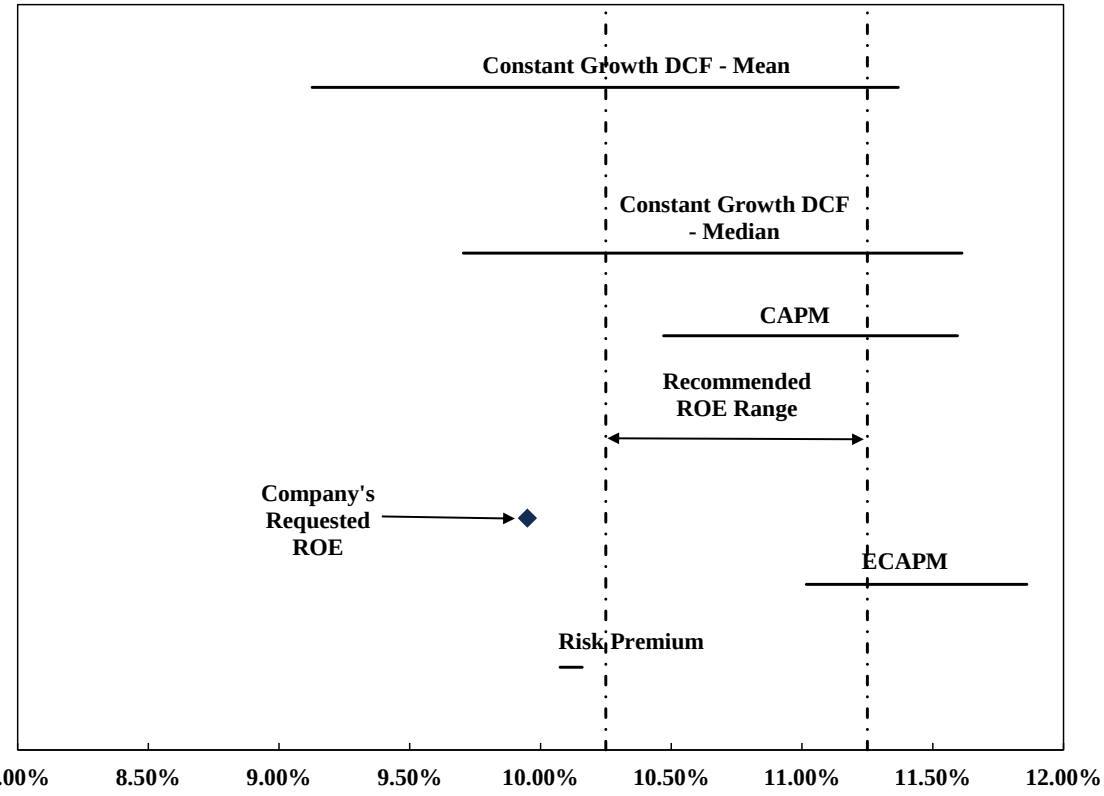
forward-looking estimate over the period during which the rates will be in effect, these analyses rely on forward-looking inputs and assumptions (*e.g.*, projected analyst growth rates in the DCF model, forecasted risk-free rate and market risk premium in the CAPM analysis).

- Although the companies in my proxy group are generally comparable to CenterPoint Energy Arkla, each company is unique, and no two companies have the exact same business and financial risk profiles. Accordingly, I considered the Company's regulatory, business, and financial risks relative to the proxy group of comparable companies, and the implications of those risks on the Company's ROE.

Q. What are the results of the models that you have used to estimate the market-based cost of equity for CenterPoint Energy Arkla?

A. Figure 1 summarizes the range of results produced by the cost of equity analyses.

Figure 1: Summary of Cost of Equity Analytical Results



As shown, the range of results across all methodologies is wide. While it is common to consider multiple models to estimate the cost of equity, it is particularly important when the range of results varies considerably across methodologies.

Q. Are prospective capital market conditions expected to affect the results of the cost of equity analyses for the Company during the period in which the rates established pursuant to the results of this proceeding will be in effect?

A. Yes. Capital market conditions are expected to affect the results of the cost of equity estimation models. Specifically:

- Long-term interest rates have increased substantially over the past two years and are expected to remain relatively high at least over the next year in response to inflation.

- Since (i) utility dividend yields are less attractive than the risk-free rates of government bonds; (ii) interest rates are expected to remain near current levels over the next year, and (iii) utility stock prices are inversely related to changes in interest rates; utility share prices could either decline or remain depressed.

- Similarly, equity analysts have noted the increased risk for the utility sector as a result of elevated interest rates and expect the sector to underperform in 2024.

- Consequently, it is important to consider that if utility share prices decline, the results of the DCF model, which relies on current utility share prices, would understate the cost of equity during the period that the Company's rates will be in effect.

- Rating agencies have responded to the risks of the utility sector, citing factors including elevated capital expenditures, interest rates, and inflation that create pressures for customer affordability and prompt rate recovery, and have noted the importance of regulatory support in their current outlooks.

It is appropriate to consider all of these factors when estimating a reasonable range of the investor-required cost of equity and the reasonableness of the Company's requested ROE.

Q. What is your recommended ROE for CenterPoint Energy Arkla?

A. Considering the analytical results presented in Figure 1, as well as the level of regulatory, business, and financial risk faced by the Company's natural gas operations in Louisiana relative to the proxy group, I believe a range from 10.25 percent to 11.25 percent is reasonable. The Company's proposal to maintain its midpoint ROE 9.95 percent is below the low end of the range and conservative.

Q. Is CenterPoint Energy Arkla's requested capital structure reasonable and appropriate?

A. Yes. CenterPoint Energy Arkla's proposal to maintain its current hypothetical capital structure consisting of 52 percent common equity and 48 percent total debt is reasonable. The Company's proposed equity ratio of 52 percent is well within the range of the actual capital structures of the utility operating subsidiaries of the proxy group companies and is below the average of the proxy group. Further, the Company's proposed equity ratio is reasonable considering that credit rating agencies have identified in their outlook for the utility sector significant risks such as elevated interest rates and inflation, record levels of capital spending, and the need to fund capital spending in a credit supportive manner.

Q. Are the Company's requested short-term and long-term cost of debt reasonable and appropriate?

A. Yes. Comparing the cost of each of the Company's long-term debt issuances to the market at the time of issuance indicates that the Company's embedded costs of long-term debt are reasonable. Similarly, I compared the Company's actual short-term debt cost of 5.44 percent to the 30-day average yield on the 1-year Treasury bill of 5.13 percent as of June 28, 2024.[4] Because the Company's proposed short-

[4] Short-term debt is generally defined as debt obligations with a term of one year or less.

term debt rate is consistent with the current rates on short-term debt, I conclude the Company's short-term debt rate is reasonable.

III. REGULATORY GUIDELINES

Q. Please describe the guiding principles to be used in establishing the cost of capital for a regulated utility.

A. The United States Supreme Court's precedent-setting *Hope* and *Bluefield* cases established the standards for determining the fairness or reasonableness of a utility's allowed ROE. Among the standards established by the Court in those cases are: (1) consistency with other businesses having similar or comparable risks; (2) adequacy of the return to support credit quality and access to capital; and (3) the principle that the result reached, as opposed to the methodology employed, is the controlling factor in arriving at just and reasonable rates.[5]

Q. Has Louisiana provided similar guidance in establishing the appropriate return on common equity?

A. Yes, it has. In *Central Louisiana Electric Company v. Louisiana Public Service Commission*, the Louisiana Supreme Court stated: "In utility rate-making, the primary objective is to allow the company sufficient revenues to meet its operating

[5] *Hope*, 320 U.S. 591 (1944); *Bluefield*, 262 U.S. 679 (1923).

expenses, provide its shareholders with a reasonable rate of return, and attract new capital"[6]

This guidance is in accordance with the *Hope* and *Bluefield* decisions and the principles I employed to estimate the cost of equity and recommended ROE range for the Company, including the principle that an allowed rate of return must be sufficient to enable regulated companies like CenterPoint Energy Arkla to attract capital on reasonable terms.

Q. Why is it important for a utility to be allowed the opportunity to earn an ROE that is adequate to attract capital at reasonable terms?

A. An ROE that is adequate to attract capital at reasonable terms enables the Company to continue to provide safe, reliable natural gas service while maintaining its financial integrity. The authorized return should be commensurate with returns expected elsewhere in the market for investments of equivalent risk. If it is not, debt and equity investors will seek alternative investment opportunities for which the expected return reflects the perceived risks, thereby inhibiting the Company's ability to attract capital at reasonable cost, which negatively affects customers.

[6] *Cleco v. Public Service Com'n*, 508 So. 2d 1361, 1364 (La. 1987).

Q. Is a utility's ability to attract capital affected by the ROEs authorized for other utilities?

A. Yes. Utilities compete directly for capital with other investments of similar risk, which include other electric, natural gas and water utilities. Therefore, the ROE authorized for a utility sends an important signal to investors regarding whether there is regulatory support for financial integrity, dividends, growth, and fair compensation for business and financial risk. The cost of capital represents an opportunity cost to investors. If higher returns are available elsewhere for other investments of comparable risk over the same time-period, investors have an incentive to direct their capital to those alternative investments. Thus, an authorized ROE significantly below authorized ROEs for other regulated utilities of similar risk can inhibit the utility's ability to attract capital for investment.

Q. What is the standard for setting the ROE in any jurisdiction?

A. The stand-alone ratemaking principle is a foundation of jurisdictional ratemaking. This principle requires that the rates that are charged in any operating jurisdiction be for the costs incurred in that jurisdiction. The stand-alone ratemaking principle ensures that customers in each jurisdiction only pay for the costs of the service provided in that jurisdiction, which is not influenced by the business operations in other operating companies. Consistent with this principle, the cost of equity analysis is performed for an individual operating company as a stand-alone entity.

As such, I have evaluated the investor-required return for CenterPoint Energy Arkla's natural gas operations.

Q. Does the fact that the Company is a subsidiary of CenterPoint Energy Inc. ("CNP"), a publicly traded company, affect your analysis?

A. No. In this proceeding, consistent with the stand-alone ratemaking principle, it is appropriate to establish the cost of equity for the Company, not its publicly traded entity, CNP. More importantly, however, it is appropriate to establish a cost of equity and capital structure that provide the Company the ability to attract capital on reasonable terms on a stand-alone basis and within CNP.

Q. Are the regulatory framework, the authorized ROE, and equity ratio important to the financial community?

A. Yes. The regulatory framework is one of the most important factors in investors' assessments of risk. Specifically, the authorized ROE and equity ratio for regulated utilities is very important for determining the degree of regulatory support for supporting a utility's creditworthiness and financial stability in the jurisdiction. To the extent that authorized returns in a jurisdiction are lower than the returns that have been authorized more broadly, such actions are considered by both debt and equity investors in the overall risk assessment of the regulatory jurisdiction in which the company operates.

Q. What are your conclusions regarding regulatory guidelines?

A. The ratemaking process is premised on the principle that in order for investors and companies to commit the capital needed to provide safe and reliable utility services, a utility must have a reasonable opportunity to recover the return of, and the market-required return on its invested capital. Accordingly, the Commission's order in this proceeding should provide the Company with a reasonable opportunity to earn an ROE that is adequate to attract capital at reasonable terms and sufficient to ensure its financial integrity. It is important for the ROE authorized in this proceeding to take into consideration current and projected capital market conditions, as well as investors' expectations and requirements for both risks and returns. Because utility operations are capital-intensive, regulatory decisions should enable the utility to attract capital at reasonable terms under a variety of economic and financial market conditions. Providing the opportunity to earn a market-based cost of capital supports the financial integrity of the Company, which is in the interest of both customers and shareholders.

IV. CAPITAL MARKET CONDITIONS

Q. Why is it important to analyze capital market conditions?

A. The models used to estimate the cost of equity rely on market data and thus the results of those models can be affected by prevailing market conditions at the time the analysis is performed. While the ROE established in a rate proceeding is intended to be forward-looking, the analyst uses current and projected market data,

including stock prices, dividends, growth rates, and interest rates, in the cost of equity estimation models to estimate the investor-required return for the subject company.

Analysts and regulatory commissions recognize that current market conditions affect the results of the cost of equity estimation models. As a result, it is important to consider the effect of the market conditions on these models when determining an appropriate range for the ROE and the ROE to be used for ratemaking purposes for a future period. If investors do not expect current market conditions to be sustained in the future, it is possible that the cost of equity estimation models will not provide an accurate estimate of investors' required return during that rate period. Therefore, it is important to consider projected market data to estimate the return for that forward-looking period.

Q. What factors affect the cost of equity for regulated utilities in the current and prospective capital markets?

A. The cost of equity for regulated utility companies is being affected by several factors in the current and prospective capital markets, including: (1) changes in monetary policy; (2) relatively high inflation; and (3) increased interest rates that are expected to remain relatively high over the next few years. These factors affect the assumptions used in the cost of equity estimation models.

A. Inflationary Expectations in Current and Projected Capital Market Conditions

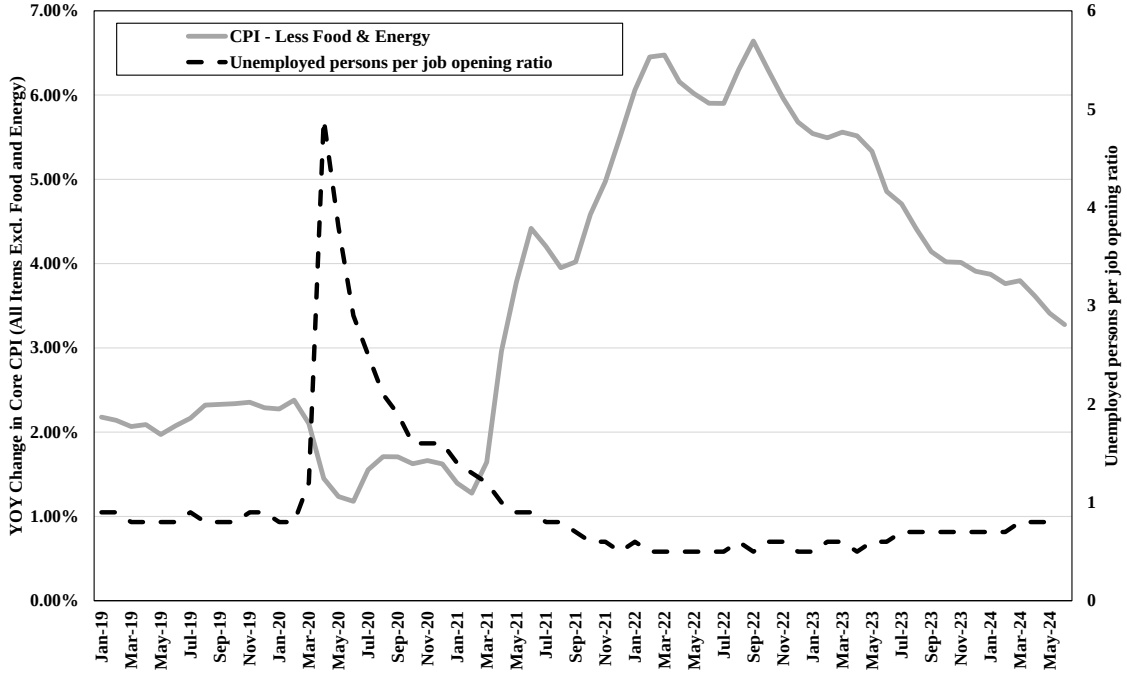
Q. What has the level of inflation been over the past few years?

A. As shown in Figure 2, core inflation increased steadily beginning in early 2021, rising from 1.41 percent in January 2021 to a high of 6.64 percent in September 2022, which was the largest 12-month increase since 1982.[7] Since that time, while core inflation has declined in response to the Federal Reserve's monetary policy, it continues to remain significantly above the Federal Reserve's target level of 2.0 percent.

In addition, I also considered the ratio of unemployed persons per job opening, which is currently 0.8 and has been consistently below 1.0 since 2021, despite the Federal Reserve's accelerated policy normalization. This metric indicates sustained strength in the labor market. Given the Federal Reserve's dual mandate of maximum employment and price stability, the continued increased levels of core inflation coupled with the strength in the labor market has resulted in the Federal Reserve's sustained focus on the priority of reducing inflation.

[7] Figure 2 presents the year-over-year (YOY) change in core inflation, as measured by the Consumer Price Index (CPI) excluding food and energy prices as published by the Bureau of Labor Statistics. I considered core inflation because it is the preferred inflation indicator of the Federal Reserve for determining the direction of monetary policy. Core inflation is preferred by the Federal Reserve because it removes the effect of food and energy prices, which can be highly volatile.

Figure 2: YOY Percent Change in the Consumer Price Index, January 2019–June 2024[8]



Q. What are the expectations for inflation over the near-term?

A. Over the last several months the Federal Reserve Open Market Committee ("FOMC") has been clear that they intend to rely on market data before making any changes to interest rates. In the FOMC's meeting on June 12, 2024, Chairman Powell observed that the FOMC will make their decision "meeting by meeting."[9] Further, while the FOMC forecast one 25 basis point rate cut in 2024,[10] Chairman Powell noted that is just a projection and not a "plan," and indicated that the FOMC

[8] Bureau of Labor Statistics.
[9] Federal Reserve, Transcript of Chair Powell's Press Conference, June 12, 2024, at 4.
[10] Federal Reserve, Summary of Economic Projections, June 12, 2024, at 2.

is prepared to maintain the current federal funds rate range higher for longer if needed to reduce inflation.[11]

Similarly, Boston Federal Reserve President Susan Collins recently commented that she thought the federal funds rate would need to be kept at its current level until there was greater confidence that inflation was moving sustainably towards 2 percent.[12] Ms. Collins cited improvements in supply chains as the reason inflation declined in 2023, but that may not continue in 2024 and that slower economic growth will be needed to reduce demand in order to further reduce inflation.[13] New York Federal Reserve President John Williams and Minneapolis Federal Reserve President Neel Kashkari also stated that the federal funds rate will need to remain at its current level for longer as more data is collected.[14] Mr. Kashkari recently added that he wanted to see "[m]any more months of positive inflation data" before there is rate cut and that he has not ruled out further rate increases if inflation does not continue to decrease.[15]

[11] Federal Reserve, Transcript of Chair Powell's Press Conference, June 12, 2024, at 4.
[12] Steve Matthews, "Fed's Collins Says Reaching 2% Inflation Goal May Take Longer," Bloomberg, May 8, 2024.
[13] Jennifer Schonberger, "Collins Becomes Latest Fed Official to Warn Rates Will Likely Stay Higher for Longer," Yahoo! Finance, May 8, 2024.
[14] *Id*.
[15] Karen Gilchrist, "Fed's Kashkari wants to see 'many more months' of positive inflation data before a rate cut," CNBC, May 28, 2024.

Q. What is the market's expectation about interest rate cuts?

A. The market has recognized the strength in the economy and the labor market and has tempered its expectations regarding how much the FOMC will decrease the federal funds rate in 2024. The CME Group, which publishes a "FedWatch" probability chart of FOMC activity, reported on July 19, 2024, that federal funds rate futures contracts reflect expectations of approximately 75 basis points in rate cuts this year, which is substantially lower than the 150 basis points in rate cuts that were expected in January 2024.[16] In summary, the market is expecting that interest rates will remain higher for longer than anticipated at the beginning of 2024.

Q. What policy actions has the Federal Reserve enacted to respond to increased inflation?

A. The dramatic increase in inflation has prompted the Federal Reserve to pursue an aggressive normalization of monetary policy, removing the accommodative policy programs used to mitigate the economic effects of COVID-19. Beginning in March 2022 and through September 2023, the Federal Reserve increased the target federal funds rate through a series of increases from a range of 0.00 – 0.25 percent to 5.25 - 5.50 percent.[17] While inflation has declined from its peak, it still is above the Federal Reserve's target of 2 percent, and therefore, as just noted, the Federal

[16] CME Group, FedWatch Tool, June 14, 2024.
[17] Federal Reserve, Press Releases, March 16, 2022, May 4, 2022, June 15, 2022, September 22, 2022, November 2, 2022, February 1, 2023, March 22, 2023, May 3, 2023, July 26, 2023, September 20, 2023, and November 1, 2023.

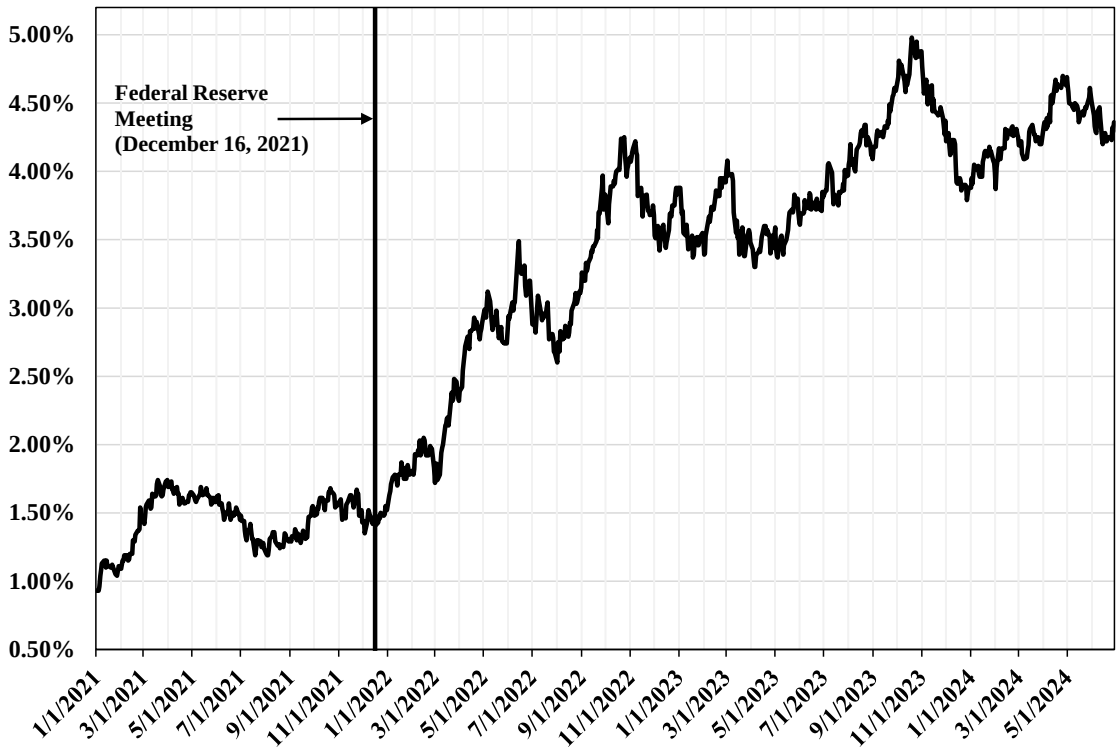
Reserve anticipates maintaining short-term interest rates higher for longer in order to achieve its goal of 2 percent inflation over the long-run.

B. The Effect of Inflation and Monetary Policy on Interest Rates and the Investor-Required Return

Q. Have the yields on long-term government bonds increased in response to inflation and the Federal Reserve's normalization of monetary policy?

A. Yes. As the Federal Reserve has substantially increased the federal funds rate in response to increased levels of inflation that have persisted for longer than originally projected, longer term interest rates have also increased. As shown in Figure 3, since the Federal Reserve's December 2021 meeting, the yield on 10-year Treasury bonds has approximately tripled, increasing from 1.47 percent on December 15, 2021 to 4.36 percent on June 28, 2024.

Figure 3: 10-Year Treasury Bond Yield, January 2021–June 2024[18]



Q. How have interest rates and inflation changed since the Company's last application filing to renew its RSP?

A. As shown in Figure 4, both short-term and long-term interest rates have increased substantially since the Commission's 2022 decision reauthorizing an ROE midpoint of 9.95 percent in the Company's last application filing to renew its RSP. For example, long-term interest rates have increased over 150 basis points as the Federal Reserve has increased the federal funds rate to combat inflation. While I recognize the rate of inflation has declined since the decision in the Company's last

[18] S&P Capital IQ Pro.

application to renew its RSP, it is important to note that it remains above the Federal Reserve's target.

Figure 4: Change in Market Conditions Since the Company's Last Rate Case[19]

Docket	Date	Federal Funds Rate	30-Day Avg 30 Year Treasury Bond Yield	Core Inflation Rate	Requested ROE	Auth'd ROE
Docket No. U-36126	5/19/2022	0.83%	2.98%	6.02%		9.95%
Current	6/30/2024	5.33%	4.50%	3.28%	9.95%	
Change		4.50%	1.52%	-2.74%		

Q. What have equity analysts said about long-term government bond yields?

A. Equity analysts have noted that they expect the yields on long-term government bonds to remain elevated. For example, the consensus estimate of the average yields on the 30-year Treasury bond reported by *Blue Chip Financial Forecasts* is 4.32 percent through 3Q/2025 and is also 4.30 percent over the longer term (through 2030), meaning long-term interest rates are expected to remain elevated during the period that the Company's rates will be in effect.[20] As a result, it is reasonable to expect that if government bond yields remain elevated, the cost of equity will remain higher than at the time of the Company's last application to renew its RSP.

[19] St. Louis Federal Reserve Bank; Bureau of Labor Statistics.
[20] *Blue Chip Financial Forecasts*, Vol. 43, No. 7, June 30, 2024, at 2 and *Blue Chip Financial Forecasts*, Vol. 43, No. 6, May 31, 2023, at 14.

C. Expected Performance of Utility Stocks and the Investor-Required Return on Utility Investments

Q. Are utility share prices correlated to changes in the yields on long-term government bonds?

A. Yes. Interest rates and utility share prices are inversely correlated, which means that increases in interest rates result in declines in the share prices of utilities and vice versa. For example, Goldman Sachs and Deutsche Bank examined the sensitivity of share prices of different industries to changes in interest rates over the past five years. Both Goldman Sachs and Deutsche Bank found that utilities had one of the strongest negative relationships with bond yields (*i.e.*, increases in bond yields resulted in the decline of utility share prices).[21]

Q. How do equity analysts expect the utilities sector to perform in 2024?

A. Various equity analysts continue to project that utilities will underperform the broader market given the substantial increases in interest rates over the past two years:

- Fidelity Investments classifies the utility sector as underweight.[22]
- CFRA Research recently classified the utility sector as underweight, stating that the 10-year Treasury yield, which CFRA noted is the "benchmark for gauging the attractiveness of utility valuations and yields," exceeded the dividend yield of the utilities included in the S&P Composite 1500.[23]

[21] Lee, Justina, "Wall Street Is Rethinking the Treasury Threat to Big Tech Stocks," Bloomberg.com, March 11, 2021.
[22] Fidelity Investments, "Second Quarter 2024 Investment Research Update," April 22, 2024, p. 3.
[23] Daniel Rich, "U.S. Utilities – Cherry-picking Quality in an Underperforming Sector," CFRA, January 26, 2024.

- UBS recently classified the 11 sectors of the S&P 500 as most preferred, neutral and least preferred for 2024 with the utility sector being classified as one of UBS's three least preferred sectors (*i.e.*, utilities, materials and real estate).[24]

- Professional investors surveyed by Barron's in its most recent Big Money poll published in May 2024 selected the utility sector as one of the five equity sectors that they liked the least over the next twelve months, indicating they are projecting that utilities will underperform the broader market over the next twelve months.[25]

Q. Why do equity analysts expect the utility sector to underperform over the near-term?

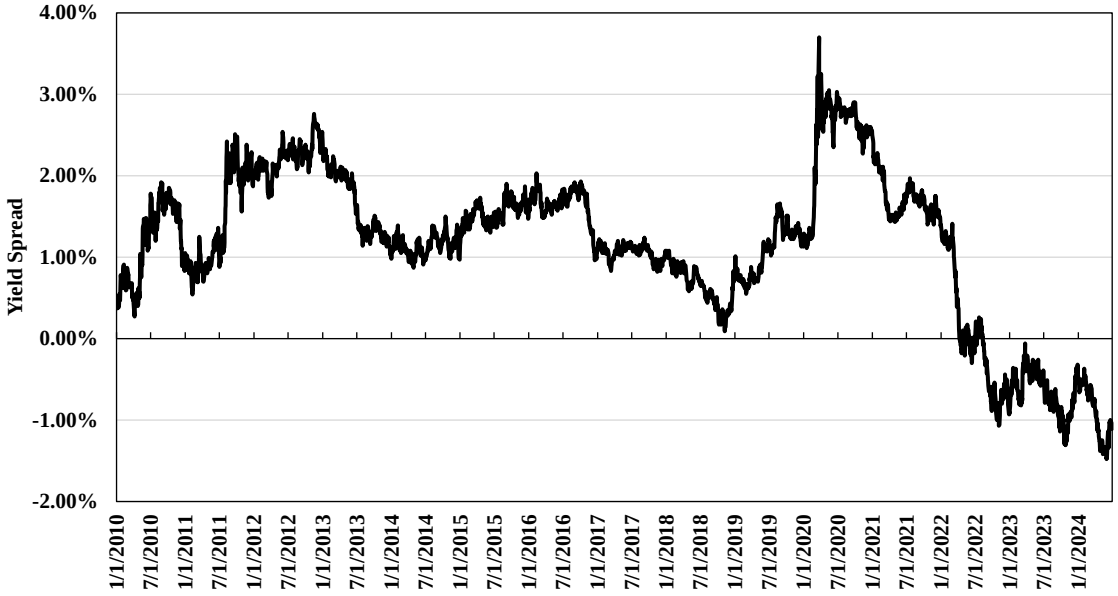
A. Equity analysts expect the utility sector to continue to underperform given that, on average, the yields for the utility sector remain lower than the yields on long-term government bonds. To illustrate this point, I examined the difference between the dividend yields of utility stocks and the yields on long-term government bonds from January 2010 through June 2024 (*i.e.*, yield spread). I selected the dividend yield on the S&P Utilities Index as the measure of the dividend yields for the utility sector and the yield on the 10-year Treasury bond as the estimate of the yield on long-term government bonds.

As shown in Figure 5, the recent significant increase in long-term government bonds yields has resulted in the yield on long-term government bonds exceeding the dividend yields of utilities. The yield spread as of June 30, 2024 was *negative*

[24] Jason Capul, "UBS Prefers Info Tech, Consumer Staples and Energy in 2024," Seeking Alpha (Dec. 12, 2023), seekingalpha.com/news/4045578-ubs-outlines-its-sector-outlook-and-offers-a-year-end-sp-price-target.
[25] Paul La Monica, "The Stock Market Will Rise Nearly 10% More This Year, Money Managers Predict in Barron's Latest Poll," Barron's, May 3, 2024.

1.11 percent, meaning that the yield on the 10-year Treasury bond exceeds the dividend yield for the S&P Utilities Index. However, the long-term average yield spread from 2010 to 2024 is (positive) 1.15 percent. Therefore, the current yield spread is well below the long-term average. Because of the fact that the yield spread is currently well below the long-term average, and the expectation that interest rates will remain relatively high through at least the next year, it is reasonable to conclude that the utility sector is likely to underperform over the near-term. This is because investors that purchased utility stocks as an alternative to the lower yields on long-term government bonds would otherwise be inclined to rotate into government bonds given the yields on long-term government bonds remain elevated and higher than utility dividend yields, thus resulting in a decrease in the share prices of utilities.

Figure 5: Spread between the S&P Utilities Index Dividend Yield and the 10-year Treasury Bond Yield, January 2010–June 2024[26]



D. Conclusion

Q. What are your conclusions regarding the effect of current market conditions on the cost of equity for CenterPoint Energy Arkla?

A. Due to their effect on the estimated cost of equity, it is important that current and projected market conditions be considered in setting the forward-looking ROE in this proceeding. Long-term interest rates remain substantially higher than when the decision was issued in the Company's last application to renew its RSP and are expected to remain higher for longer as macroeconomic indicators continue to indicate a strong economy and inflation remains above the Federal Reserve's long-term target level. These factors demonstrate that the cost of equity has increased

[26] S&P Capital IQ Pro and Bloomberg Professional.

since the Company's last application to renew its RSP, which should be considered when establishing the ROE in this proceeding.

V. PROXY GROUP SELECTION

Q. Please provide a brief profile of CenterPoint Energy Arkla.

A. CenterPoint Energy Arkla is a natural gas distribution company that is an operating division of CERC, which is an indirect, wholly owned subsidiary of CNP. CenterPoint Energy Arkla distributes natural gas to approximately 131,000 residential, commercial, industrial, and transportation customers in ten parishes in Louisiana.[27] As of December 31, 2023, CenterPoint Energy Arkla's net utility natural gas plant in Louisiana was approximately $256.9 million.[28] CERC's and CNP's long-term corporate or issuer ratings are shown in Figure 6 below:

[27] Company provided data.
[28] Company provided data.

Figure 6: Long-Term Corporate/Issuer Credit Ratings

Company	S&P Rating (Outlook)	Moody's Rating (Outlook)
CenterPoint Energy Inc ("CNP")	BBB+ (Negative)[29]	Baa2 (Stable)[30]
CenterPoint Energy Resources Corp. ("CERC")	BBB+ (Negative)[31]	A3 (Stable)[32]

Q. Why have you used a group of proxy companies to estimate the cost of equity for CenterPoint Energy Arkla?

A. In this proceeding, we are focused on estimating the cost of equity for a natural gas utility company that is not itself publicly traded. Because the cost of equity is a market-based concept and because CenterPoint Energy Arkla's operations do not make up the entirety of a publicly traded entity, it is necessary to establish a group of companies that is both publicly traded and comparable to the Company in certain fundamental business and financial respects to serve as its "proxy" in the ROE estimation process.

Even if CenterPoint Energy Arkla was a publicly-traded entity, it is possible that transitory events could bias its market value over a given period. A significant benefit of using a proxy group is that it moderates the effects of unusual events that may be associated with any one company. The proxy companies used in my

[29] S&P Global Ratings as of March 19, 2024.
[30] Moody's Investors Service Credit Opinion, CenterPoint Energy, Inc., October 13, 2023.
[31] S&P Global Ratings, CenterPoint Energy Resources Corp., April 15, 2024.
[32] Moody's Investors Service Credit Opinion, CenterPoint Energy Resources Corp., October 6, 2023.

analyses all possess a set of operating and risk characteristics that are substantially comparable (but not identical) to the Company, and thus provide a reasonable basis to derive and estimate the appropriate ROE for CenterPoint Energy Arkla.

Q. How did you select the companies included in your proxy group?

A. I began with the group of 9 companies that Value Line Investment Survey ("Value Line") classifies as Natural Gas Distribution Utilities and applied the following screening criteria to select companies that:

- pay consistent quarterly cash dividends, because companies that do not cannot be analyzed using the Constant Growth DCF model;
- have investment grade long-term issuer ratings from Standard & Poor's ("S&P") and/or Moody's;
- are covered by at least two utility industry analysts;
- have positive long-term earnings growth forecasts from at least two utility industry equity analysts;
- derive more than 70.00 percent of their total operating income from regulated operations;
- derive more than 60.00 percent of regulated operating income from gas distribution operations; and
- were not parties to a merger or transformative transaction during the analytical periods relied on.

Q. What is the composition of your proxy group?

A. The screening criteria discussed above are shown in **Exhibit AEB-3** and resulted in a proxy group consisting of the companies shown in Figure 7 below.

Figure 7: Proxy Group

Company	Ticker
Atmos Energy Corporation	ATO
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
Spire, Inc.	SR

VI. COST OF EQUITY ESTIMATION

Q. Please briefly discuss the ROE in the context of the regulated rate of return.

A. The overall rate of return for a regulated utility is the weighted average cost of capital, in which the cost rates of the individual sources of capital are weighted by their respective book values. The ROE is the cost of common equity capital in the utility's capital structure for ratemaking purposes. While the costs of debt can be directly observed, the cost of equity is market-based and, therefore, must be estimated based on observable market data.

Q. How is the required cost of equity determined?

A. The required cost of equity is estimated by using analytical techniques that rely on market-based data to quantify investor expectations regarding equity returns, adjusted for certain incremental costs and risks. Informed judgment is then applied to determine where the Company's cost of equity falls within the range of results produced by multiple analytical techniques. The key consideration in determining the cost of equity is to ensure that the methodologies employed reasonably reflect

investors' views of the financial markets in general, as well as the subject company in the context of the proxy group, in particular.

Q. What methods did you use to establish your recommended ROE in this proceeding?

A. I considered the results of the Constant Growth DCF model, the CAPM, the ECAPM, and the Bond Yield Plus Risk Premium methodology. As discussed in more detail below, a reasonable ROE estimate appropriately considers alternative methodologies and the reasonableness of their individual and collective results.

Q. Why is it important to use more than one analytical approach?

A. Because the cost of equity is not directly observable, it must be estimated based on both quantitative and qualitative information. When faced with the task of estimating the cost of equity, analysts and investors are inclined to gather and evaluate as much relevant data as reasonably can be analyzed. Several models have been developed to estimate the cost of equity, and I use multiple approaches to estimate the cost of equity. As a practical matter, however, all of the models available for estimating the cost of equity are subject to limiting assumptions or other methodological constraints. Consequently, many well-regarded finance texts recommend using multiple approaches when estimating the cost of equity. For example, Copeland, Koller, and Murrin[33] suggest using the CAPM and Arbitrage

[33]Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, 3rd Ed. (New York: McKinsey & Company, Inc., 2000), at 214.

Pricing Theory model, while Brigham and Gapenski[34] recommend the CAPM, DCF, and Bond Yield Plus Risk Premium approaches.

Further, the recent changes in market conditions discussed previously highlight the benefit of using multiple models since each model relies on different assumptions, certain of which better reflect current and projected market conditions at different times. For example, the CAPM and ECAPM analyses rely directly on interest rates as an assumption in the models and therefore may more directly reflect the market conditions expected when the Company's rates are in effect. Accordingly, it is important to use multiple analytical approaches to ensure that the cost of equity results reflect market conditions that are expected during the period that the Company's rates will be in effect.

A. Constant Growth DCF Model

Q. Please describe the DCF approach.

A. The DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its most general form, the DCF model is expressed as follows:

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + ... + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

[34]Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

Where P_0 represents the current stock price, D1…D∞ are all expected future dividends, and k is the discount rate, or required ROE. Equation [1] is a standard present value calculation that can be simplified and rearranged into the following form:

$$k = \frac{D_0(1+g)}{P_0} + g \qquad [2]$$

Equation [2] is often referred to as the Constant Growth DCF model in which the first term is the expected dividend yield and the second term is the expected long-term growth rate.

Q. What assumptions are required for the Constant Growth DCF model?

A. The Constant Growth DCF model requires the following four assumptions: (1) a constant growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings ratio; and (4) a discount rate greater than the expected growth rate. To the extent that any of these assumptions are violated, considered judgment and/or specific adjustments should be applied to the results.

Q. What market data did you use to calculate the dividend yield in your Constant Growth DCF model?

A. The dividend yield in my Constant Growth DCF model is based on the proxy companies' current annualized dividend and average closing stock prices over the 30-, 90-, and 180-trading days ended June 30, 2024.

Q. Why did you use 30-, 90-, and 180-day averaging periods?

A. In my constant growth DCF model, I use an average of recent trading days to calculate the term P_0 in the DCF model to ensure that the cost of equity is not skewed by anomalous events that may affect stock prices on any given trading day. The averaging period should also be reasonably representative of expected capital market conditions over the long term.

Q. Did you make any adjustments to the dividend yield to account for periodic growth in dividends?

A. Yes, I did. Because utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Given that assumption, it is reasonable to apply one-half of the expected annual dividend growth rate for purposes of calculating the expected dividend yield component of the DCF model. This adjustment ensures that the expected first-year dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the aggregated dividends to be paid during that time.

Q. Why is it important to select appropriate measures of long-term growth in applying the DCF model?

A. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) assumes a single growth estimate in perpetuity. To reduce the long-term growth rate to a single measure, one must assume that the payout ratio remains constant and that earnings

per share, dividends per share and book value per share all grow at the same constant rate. Over the long run, however, dividend growth can only be sustained by earnings growth. Therefore, it is important to incorporate a variety of sources of long-term earnings growth rate projections into the Constant Growth DCF model.

Q. Which sources of long-term earnings growth rates did you use?

A. My Constant Growth DCF model incorporates three sources of long-term earnings growth rate projections: (1) Zacks Investment Research; (2) Yahoo! Finance; and (3) Value Line.

Q. Why are EPS growth rates the appropriate growth rates to be relied on in the DCF model?

A. Earnings are the fundamental driver of a company's ability to pay dividends; therefore, projected EPS growth is the appropriate measure of a company's long-term growth. In contrast, changes in a company's dividend payments are based on management decisions related to cash management and other factors. For example, a company may decide to retain earnings rather than pay out a portion of those earnings to shareholders through dividends. Therefore, dividend growth rates are less likely than earnings growth rates to reflect accurately investor perceptions of a company's growth prospects.

Q. How did you calculate the range of results for the Constant Growth DCF model?

A. I calculate the low-end result for the constant growth DCF model using the minimum growth rate of the three sources (*i.e.*, the lowest of the Zacks, Yahoo! Finance, and Value Line projected EPS growth rates) for each of the proxy group companies. I use a similar approach to calculate a high-end result, using the maximum growth rate of the three sources for each proxy group company. Lastly, I also calculate results using the average EPS growth rate from all three sources for each proxy group company.

Q. What were the results of your constant growth DCF analyses?

A. Figure 8 summarizes the results of my DCF analyses. As shown, the mean and median DCF results using the average growth rates range from 10.08 percent to 10.28 percent, and the mean and median results using the maximum growth rates range from 11.34 percent to 11.66 percent.

Figure 8: Discounted Cash Flow Results[35]

Constant Growth DCF			
	Mean Low	Mean	Mean High
30-Day Avg. Stock Price	9.10%	10.20%	11.34%
90-Day Avg. Stock Price	9.11%	10.22%	11.35%
180-Day Avg. Stock Price	9.17%	10.28%	11.41%
Average	9.13%	10.23%	11.37%
	Median Low	Median	Median High
30-Day Avg. Stock Price	9.68%	10.13%	11.58%
90-Day Avg. Stock Price	9.69%	10.08%	11.59%
180-Day Avg. Stock Price	9.75%	10.08%	11.66%
Average	9.70%	10.10%	11.61%

Q. Have regulatory commissions acknowledged that the DCF model might understate the cost of equity given the current capital market conditions of relatively high inflation and elevated interest rates?

A. Yes. For example, in its May 2022 decision establishing the cost of equity for Aqua Pennsylvania, Inc., the Pennsylvania Public Utility Commission concluded that the current capital market conditions of high inflation and increased interest rates has resulted in the DCF model understating the utility cost of equity, and that weight should be placed on risk premium models, such as the CAPM, in the determination of the ROE:

> To help control rising inflation, the Federal Open Market Committee has signaled that it is ending its policies designed to maintain low interest rates. Aqua Exc. at 9. Because the DCF model does not directly account for interest rates, consequently, it is slow to respond to interest rate changes. However, I&E's CAPM model uses

[35] *See* **Exhibit AEB-4**.

> forecasted yields on ten-year Treasury bonds, and accordingly, its methodology captures forward looking changes in interest rates.
>
> Therefore, our methodology for determining Aqua's ROE shall utilize both I&E's DCF and CAPM methodologies. As noted above, the Commission recognizes the importance of informed judgment and information provided by other ROE models. In the 2012 PPL Order, the Commission considered PPL's CAPM and RP methods, tempered by informed judgment, instead of DCF-only results. We conclude that methodologies other than the DCF can be used as a check upon the reasonableness of the DCF derived ROE calculation. Historically, we have relied primarily upon the DCF methodology in arriving at ROE determinations and have utilized the results of the CAPM as a check upon the reasonableness of the DCF derived equity return. As such, where evidence based on other methods suggests that the DCF-only results may understate the utility's ROE, we will consider those other methods, to some degree, in determining the appropriate range of reasonableness for our equity return determination. In light of the above, we shall determine an appropriate ROE for Aqua using informed judgement based on I&E's DCF and CAPM methodologies.
>
> …..
>
> We have previously determined, above, that we shall utilize I&E's DCF and CAPM methodologies. I&E's DCF and CAPM produce a range of reasonableness for the ROE in this proceeding from 8.90% [DCF] to 9.89% [CAPM]. Based upon our informed judgment, which includes consideration of a variety of factors, including increasing inflation leading to increases in interest rates and capital costs since the rate filing, we determine that a base ROE of 9.75% is reasonable and appropriate for Aqua.[36]

Similarly, the Massachusetts Department of Public Utilities in a recent rate case for NSTAR Electric Company concluded that, given the increase in interest rates, there

[36] *Penn. Pub. Util. Comm'n et.al. v, Aqua Penn. Wastewater Inc.*, Docket Nos. R-2021-3027385 and R-2021-3027386, Opinion and Order at 154–155 (May 12, 2022).

was "greater certainty" that the results of the DCF model were understating the cost of equity for the utility.[37]

B. CAPM Analyses

Q. Please briefly describe the Capital Asset Pricing Model.

A. The CAPM is a risk premium approach that estimates the cost of equity for a given security as a function of a risk-free return plus a risk premium to compensate investors for the non-diversifiable or "systematic" risk of that security. This second component is the product of the market risk premium and the Beta coefficient, which measures the relative riskiness of the security being evaluated.

The CAPM is defined by four components, each of which must theoretically be a forward-looking estimate:

$$K_e = r_f + \beta\left(r_m - r_f\right) \quad [3]$$

Where:

K_e = the required market ROE;

β = Beta coefficient of an individual security;

r_f = the risk-free rate of return; and

r_m = the required return on the market.

[37] Petition of NSTAR Electric Company, doing business as Eversource Energy, pursuant to G.L. c. 164, § 94 and 220 CMR 5.00, for Approval of a General Increase in Base Distribution Rates for Electric Service and a Performance Based Ratemaking Plan, Docket D.P.U. 22-22, Final Order at 385-386 (Nov. 30, 2022).

In this specification, the term ($r_m - r_f$) represents the market risk premium. According to the theory underlying the CAPM, because unsystematic risk can be diversified away, investors should only be concerned with systematic or non-diversifiable risk. Non-diversifiable risk is measured by Beta, which is defined as:

$$\beta = \frac{Covariance(r_e, r_m)}{Variance(r_m)} \quad [4]$$

The variance of the market return (i.e., Variance (r_m)) is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the general market (*i.e.*, Covariance (r_e, r_m)) reflects the extent to which the return on that security will respond to a given change in the general market return. Thus, Beta represents the risk of the security relative to the general market.

Q. What risk-free rate did you use in your CAPM analysis?

A. I relied on three sources for my estimate of the risk-free rate: (1) the current 30-day average yield on 30-year U.S. Treasury bonds, which is 4.50% percent;[38] (2) the average projected 30-year U.S. Treasury bond yield for the fourth quarter of 2024 through the fourth quarter of 2025, which is 4.32 percent;[39] and (3) the average projected 30-year U.S. Treasury bond yield for 2026 through 2030, which is 4.30 percent.[40]

[38] Bloomberg Professional, as of June 30, 2024.
[39] Blue Chip Financial Forecasts, Vol. 43, No. 7, June 30, 2024, at 2.
[40] Blue Chip Financial Forecasts, Vol. 43, No. 6, May 31, 2024, at 14.

Q. What Beta coefficients did you use in your CAPM analyses?

A. As shown on **Exhibit AEB-5**, I used the Beta coefficients for the proxy group companies as reported by Bloomberg and Value Line. The Beta coefficients reported by Bloomberg were calculated using ten years of weekly returns relative to the S&P 500 Index. Value Line's calculation is based on five years of weekly returns relative to the New York Stock Exchange Composite Index.

Additionally, as shown in **Exhibit AEB-6**, I also considered an additional CAPM analysis which relies on the long-term average utility Beta coefficient for the companies in the proxy group. The long-term average utility Beta coefficient was calculated as an average of the Value Line Beta coefficients for the proxy group companies from 2013 through 2023.

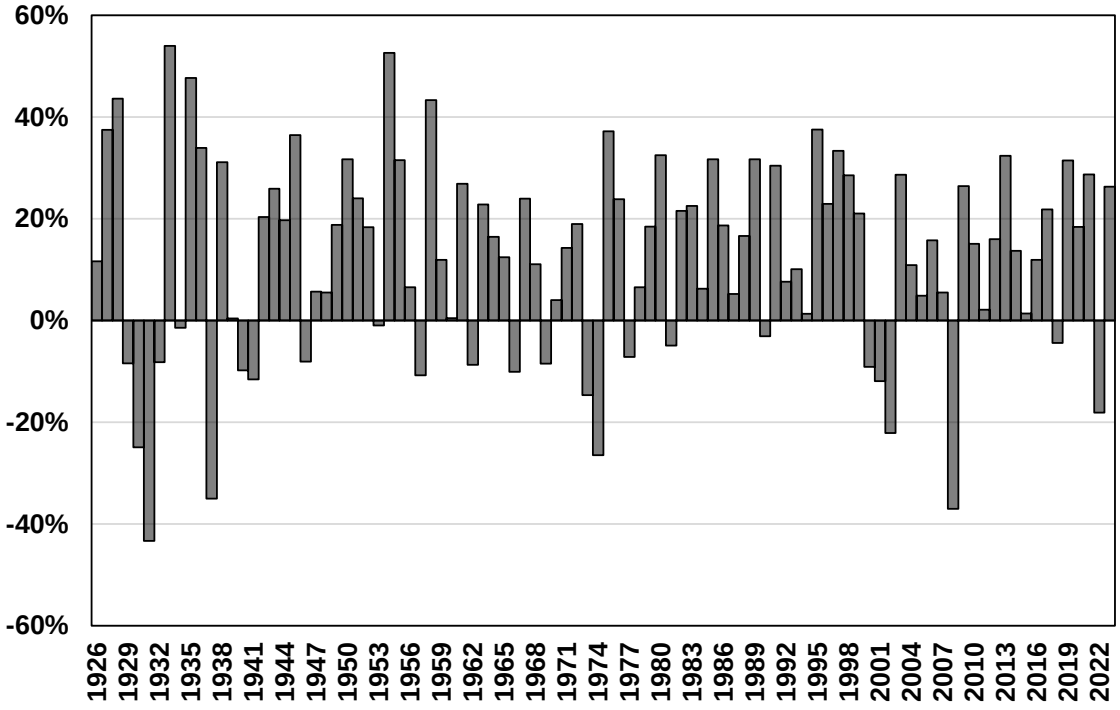
Q. How did you estimate the market risk premium in the CAPM?

A. I estimated the market risk premium as the difference between the implied expected equity market return and the risk-free rate. As shown in **Exhibit AEB-7**, the expected market return is calculated using the constant growth DCF model discussed previously as applied to the companies in the S&P 500 Index. Based on an estimated market capitalization-weighted dividend yield of 1.58 percent and a weighted long-term growth rate of 10.99 percent, the estimated required market return for the S&P 500 Index as of June 30, 2024 is 12.65 percent. Based on the three risk-free rates considered, the market risk premium ranges from 8.15 percent to 8.35 percent.

Q. How does the current expected market return of 12.65 percent compare to historical observed market returns?

A. Given the range of annual equity returns that have been observed over the past century (shown in Figure 9 below), a current expected return of 12.65 is not unreasonable. In 51 out of the past 98 years (or 52 percent of observations), the realized equity return was at least 12.65 or greater**.**

Figure 9: Realized U.S. equity market returns 1926-2023[41]



[41] Depicts total annual returns on large company stocks from 1926-2022, as reported in the 2023 Duff & Phelps SBBI Yearbook; the annual return for 2023 was calculated using total return data on the S&P 500 from S&P Capital IQ Pro.

Q. Did you consider another form of the CAPM in your analysis?

A. Yes. I have also considered the results of an Empirical CAPM ("ECAPM")[42] in estimating the cost of equity for CenterPoint Energy Arkla. The ECAPM calculates the product of the adjusted Beta coefficient and the market risk premium and applies a weight of 75 percent to that result. The model then applies a 25 percent weight to the market risk premium, without any effect from the Beta coefficient. The results of the two calculations are summed, along with the risk-free rate, to produce the ECAPM result, as noted in Equation [5] below:

$$k_e = r_f + 0.75\beta(r_m - r_f) + 0.25(r_m - r_f) \qquad [5]$$

Where:

k_e = the required market ROE;

β = Adjusted Beta coefficient of an individual security;

r_f = the risk-free rate of return; and

r_m = the required return on the market as a whole.

In essence, the Empirical form of the CAPM addresses the tendency of the "traditional" CAPM to underestimate the cost of equity for companies with low Beta coefficients such as regulated utilities. In that regard, the ECAPM is not redundant to the use of adjusted Betas; rather, it recognizes the results of academic research indicating that the risk-return relationship is different (in essence, flatter)

[42] *See e.g.*, Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 189.

than estimated by the CAPM, and that the CAPM underestimates the "alpha," or the constant return term.[43]

As with the CAPM, my application of the ECAPM uses the forward-looking market risk premium estimates, the three yields on 30-year Treasury securities noted earlier as the risk-free rate, and the current Bloomberg, current Value Line, and long-term Value Line beta coefficients.

Q. What are the results of your CAPM analyses?

A. As shown in Figure 10 (see also **Exhibit AEB-5**), my traditional CAPM analysis produces a range of returns from 10.47 percent to 11.59 percent for the proxy group. The ECAPM analysis results range from 11.02 percent to 11.86 percent for the proxy group.

Figure 10: CAPM Results

	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
CAPM			
Current *Value Line* Beta	11.59%	11.57%	11.57%
Current Bloomberg Beta	10.67%	10.63%	10.62%
Long-term Avg. *Value Line* Beta	10.52%	10.48%	10.47%
ECAPM			
Current *Value Line* Beta	11.86%	11.84%	11.84%
Current Bloomberg Beta	11.17%	11.14%	11.13%
Long-term Avg. *Value Line* Beta	11.06%	11.02%	11.02%

[43] *Id.,* at 191.

C. Bond Yield Plus Risk Premium Analysis

Q. Please describe the Bond Yield Plus Risk Premium approach.

A. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with equity ownership and therefore require a premium over the return they would have earned as a bondholder. That is, because returns to equity holders have greater risk than returns to bondholders, equity investors must be compensated to bear that risk. Risk premium approaches, therefore, estimate the cost of equity as the sum of the equity risk premium and the yield on a particular class of bonds. In my analysis, I used actual authorized returns for natural gas utility companies as the historical measure of the cost of equity to determine the risk premium.

Q. Are there other considerations that should be addressed in conducting this analysis?

A. Yes. It is important to recognize both academic literature and market evidence indicating that the equity risk premium (as used in this approach) is inversely related to the level of interest rates. That is, as interest rates increase (decrease), the equity risk premium decreases (increases). Consequently, it is important to develop an analysis that: (1) reflects the inverse relationship between interest rates and the equity risk premium; and (2) relies on recent and expected market conditions. Such an analysis can be developed based on a regression of the risk premium as a function of U.S. Treasury bond yields. If we let authorized ROEs for

natural gas utilities serve as the measure of required equity returns and define the yield on the long-term U.S. Treasury bond as the relevant measure of interest rates, the risk premium simply would be the difference between those two points.[44]

Q. Is the Bond Yield Plus Risk Premium analysis relevant to investors?

A. Yes. Investors are aware of ROE awards in other jurisdictions, and they consider those awards as a benchmark for a reasonable level of equity returns for utilities of comparable risk operating in other jurisdictions. Because my Bond Yield Plus Risk Premium analysis is based on authorized ROEs for utility companies relative to corresponding Treasury yields, it provides relevant information to assess the return expectations of investors.

Q. What did your Bond Yield Plus Risk Premium analysis reveal?

A. As shown in Figure 11 below, from 1992 through June 2024, there was a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:

$$RP = a + b(T) \quad [6]$$

Where:

[44] *See e.g.*, Berry, S. Keith. "Interest Rate Risk and Utility Risk Premia during 1982-93," Managerial and Decision Economics, Vol. 19, No. 2, March, 1998 (the author used a similar methodology, including using authorized ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates). *See also* Harris, Robert S. "Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return," Financial Management, Spring 1986, at 66.

RP = Risk Premium (difference between authorized ROEs for natural gas utilities and the yield on 30-year U.S. Treasury bonds)

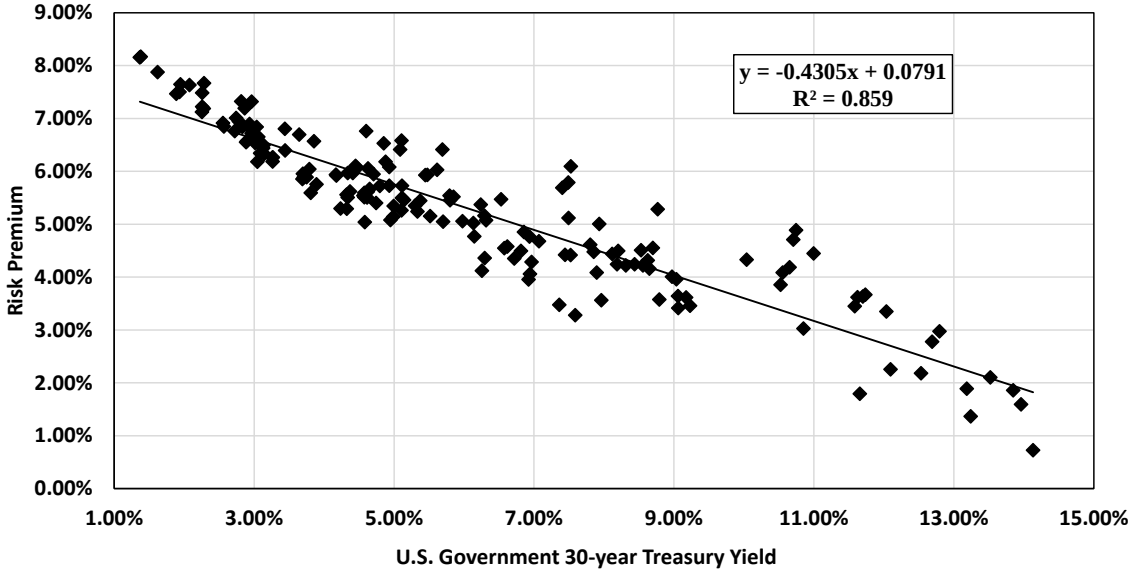
a = intercept term

b = slope term

T = 30-year U.S. Treasury bond yield

Data regarding allowed ROEs were derived from 1,301 natural gas utility rate cases from January 1980 through June 2024 as reported by Regulatory Research Associates ("RRA").[45] This equation's coefficients were statistically significant at the 99.00 percent level.

Figure 11: Risk Premium Regression Analysis



[45] This analysis began with a total of 1,874 cases and was screened to eliminate limited issue rider cases, transmission-only cases, and cases that were silent with respect to the authorized ROE. After applying those screening criteria, the analysis was based on data for 1,301 cases.

Q. What are the results of your Bond Yield Plus Risk Premium analysis?

A. The results of my Bond Yield Risk Premium analysis are shown in Figure 12 (and on **Exhibit AEB-8**).

Figure 12: Risk Premium Results

	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield	4.50%	5.97%	10.47%
Blue Chip Near-Term Projected Forecast (Q4 2024 - Q4 2025)	4.32%	6.05%	10.37%
Blue Chip Long-Term Projected Forecast (2026-2030)	4.30%	6.05%	10.35%
AVERAGE			10.40%

Q. How did the results of the Bond Yield Risk Premium inform your recommended ROE for CenterPoint Energy Arkla?

A. I have considered the results of the Bond Yield Risk Premium analysis in setting my recommended ROE for CenterPoint Energy Arkla. The results of my Bond Yield Risk Premium analysis support my conclusion that the Company's current authorized midpoint ROE of 9.95 percent is conservative. Also, as noted above, investors consider the ROE award of a company when assessing the risk of that company as compared to utilities of comparable risk operating in other jurisdictions.

VII. REGULATORY AND BUSINESS RISKS

Q. Do the results of the cost of equity analyses alone provide an appropriate estimate of the cost of equity for the Company?

A. No. These results provide only a range of the appropriate estimate of the Company's cost of equity. There are several additional factors that must be taken into consideration when determining where the Company's cost of equity falls within the range of results. These factors, which are discussed below, should be considered with respect to their overall effect on the Company's risk profile relative to the proxy group.

A. Small Size Risk

Q. Please explain the risk associated with small size.

A. Both the financial and academic communities have long accepted the proposition that the cost of equity for small firms is subject to a "size effect." While empirical evidence of the size effect often is based on studies of industries other than regulated utilities, utility analysts also have noted the risk associated with small market capitalizations. Specifically, an analyst for Ibbotson Associates noted:

> For small utilities, investors face additional obstacles, such as a smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return.[46]

[46] Michael Annin, Equity and the Small-Stock Effect, Public Utilities Fortnightly, October 15, 1995.

Q. How does the smaller size of a utility affect its business risk?

A. In general, smaller companies are less able to withstand adverse events that affect their revenues and expenses. The impact of weather variability, the loss of large customers to bypass opportunities, or the destruction of demand as a result of general macroeconomic conditions or fuel price volatility will have a proportionately greater impact on the earnings and cash flow volatility of smaller utilities. Similarly, capital expenditures for non-revenue producing investments, such as system maintenance and replacements, will put proportionately greater pressure on customer costs, potentially leading to customer attrition or demand reduction. Taken together, these risks affect the return required by investors for smaller companies**.**

Q. How does CenterPoint Energy Arkla's business in Louisiana compare in size to the proxy group companies?

A. CenterPoint Energy Arkla's operations in Louisiana are substantially smaller than the mean for the proxy group companies in terms of market capitalization. While CenterPoint Energy Arkla is not publicly-traded on a stand-alone basis, as shown on **Exhibit AEB-9**, CenterPoint Energy Arkla's common equity, based on its proposed equity ratio and approved June 2023 test year rate base,[47] is substantially smaller than the median market capitalization of the proxy group companies.

[47] Company Provided data.

Q. How did you estimate the size premium for CenterPoint Energy Arkla?

A. Given this relative size information, it is possible to estimate the impact of size on the cost of equity for the Company using *Kroll* Cost of Capital Navigator data that estimates the stock risk premia based on the size of a company's market capitalization.[48] The median market capitalization of the proxy group is approximately $3.48 billion, which corresponds to the fifth decile of *Kroll's* market capitalization data.[49] Based on *Kroll's* analysis, that decile corresponds to a size premium of 0.95 percent (*i.e.*, 95 basis points). In comparison, the implied market capitalization of CenterPoint Energy Arkla's natural gas operations of approximately $97.78 million falls within the tenth decile, which corresponds to a size premium of 4.70 percent (*i.e.*, 470 basis points). The difference between the size premium for the Company and the size premium for the proxy group is 375 basis points (*i.e.*, 4.70 percent minus 0.95 percent).

Q. Are utility companies included in the size premium study conducted by Duff & Phelps?

A. Yes, they are. As shown in Exhibit 7.2 of Duff & Phelps' 2019 Valuation Handbook, OGE Energy Corp. had the largest market capitalization of the

[48] *Kroll* Cost of Capital Navigator – Size Premium; annual data as of December 31, 2023.
[49] *Id*.

companies contained in the fourth decile.[50] Therefore, Duff & Phelps includes utility companies in its size risk premium study.

Q. Is the size premium applicable to companies in regulated industries such as natural gas utilities?

A. Yes, it is. In the article "Cost of Equity for Energy Utilities: Beyond the CAPM",[51] Stéphane Chretien and Frank Coggins studied the CAPM and its ability to estimate the risk premium for the utility industry in particular subgroups of utilities. One of the subgroups was a group of natural gas distribution companies that contained many of the same natural gas distribution companies included in my proxy group.[52] The article considered the CAPM, the Fama-French three-factor model, and a model similar to the ECAPM that I considered above. In the article, the Fama-French three-factor model explicitly included an adjustment to the CAPM for risk associated with size. As Chretien and Coggins show, the Beta coefficient on the size variable for the U.S. natural gas utility group was positive and statistically significant indicating that small size risk was relevant for regulated natural gas utilities.[53]

[50] Duff & Phelps, Valuation Handbook: Guide to Cost of Capital, 2019, Exhibit 7.2.
[51] Chrétien, Stéphane, and Frank Coggins. "Cost Of Equity For Energy Utilities: Beyond The CAPM," *Energy Studies Review*, vol. 18, no. 2, 2011, doi:10.15173/esr.v18i2.531.
[52] The U.S. natural gas utility group included: AGL Resources Inc., Atmos Energy Corp., Laclede Group, New Jersey Resources Corp., Northwest Natural Gas Co., Piedmont Natural Gas Co., South Jersey Industries, Southwest Gas Corp. and WGL Holdings Inc.
[53] Chrétien, Stéphane, and Frank Coggins. "Cost Of Equity For Energy Utilities: Beyond The CAPM," *Energy Studies Review*, vol. 18, no. 2, 2011, doi:10.15173/esr.v18i2.531, at 31.

Additionally, Zepp (2003) provided the results of two studies that showed evidence of the required risk premium for small water utilities. The first study, which was conducted by the Staff of the California Public Utilities Commission, computed proxies for beta risk using accounting data from 1981 through 1991 for 58 water utilities and concluded that smaller water utilities had greater risk and required higher returns on equity than larger water utilities.[54] The second study examined the differences in required returns over the period of 1987 through 1997 for two large and two small water utilities in California. As Zepp (2003) showed, the required return for the two small water utilities calculated using the DCF model was on average 99 basis points higher than the two larger water utilities.[55]

Q. Have regulators in other jurisdictions made a specific risk adjustment to the ROE results based on a company's small size?

A. Yes, they have. In Order No. 15, the Regulatory Commission of Alaska ("RCA") concluded that Alaska Electric Light and Power Company ("AEL&P") was riskier than the proxy group companies due to small size as well as other business risks. The RCA did "not believe that adopting the upper end of the range of ROE analyses in this case, without an explicit adjustment, would adequately compensate AEL&P for its greater risk." [56] Thus, the RCA awarded AEL&P an ROE of 12.875 percent

[54] Thomas M. Zepp, Utility Stocks and the Size Effect—Revisited 578-582 (The Quarterly Review of Economics and Finance, Vol. 43, No. 3, 2003).
[55] *Id*.
[56] Docket No. U-10-29, In the Matter of the Revenue Requirement and Cost of Service Study Designated as TA381-1 Filed by Alaska Electric Light and Power Company, Order entered September 2, 2011 (Order No. 15), at 37.

which was 108 basis points above the highest return on equity estimate from any model presented in the case.[57] Similarly, in Order No. 19, the RCA noted that small size as well as other business risks such as structural regulatory lag, weather risk, alternative rate mechanisms, gas supply risk, geographic isolation and economic conditions increased the risk of ENSTAR Natural Gas Company.[58] Ultimately, the RCA concluded that:

> Although we agree that the risk factors identified by ENSTAR increase its risk, we do not attempt to quantify the amount of that increase. Rather, we take the factors into consideration when evaluating the remainder of the record and the recommendations presented by the parties. After applying our reasoned judgment to the record, we find that 11.875% represents a fair ROE for ENSTAR.[59]

Additionally, in Docket No. E017/GR-15-1033 for Otter Tail Power Company ("Otter Tail"), the Minnesota Public Utilities Commission ("Minnesota PUC") selected an ROE above the mean DCF results, as a result of multiple factors including Otter Tail's small size. The Minnesota PUC stated:

> The record in this case establishes a compelling basis for selecting an ROE above the mean average within the DCF range, given Otter Tail's unique characteristics and circumstances relative to other utilities in the proxy group. These factors include the company's relatively smaller size,

[57] *Id.*, at 32 and 37.
[58] Docket No. U-16-066, In the Matter of the Tariff Revision Designated as TA285-4 Filed by ENSTAR Natural Gas Company, A Division of SEMCO Energy, Inc., Order entered September 22, 2017 (Order No. 19), at 50–52.
[59] *Id*.

> geographically diffuse customer base, and the scope of the Company's planned infrastructure investments.[60]

Finally, in Opinion Nos. 569 and 569-A, the Federal Energy Regulatory Commission ("FERC") adopted a size premium adjustment in its CAPM estimates for electric utilities. In those decisions, the FERC noted that "the size adjustment was necessary to correct for the CAPM's inability to fully account for the impact of firm size when determining the cost of equity."[61]

Q. How have you considered the smaller size of CenterPoint Energy Arkla in your recommendation?

A. While I have estimated the effect of CenterPoint Energy Arkla's small size on the ROE, I am not proposing a specific adjustment for this risk factor. Rather, I believe it is important to consider the small size of CenterPoint Energy Arkla's natural gas operations in Louisiana in the determination of where, within the range of analytical results, the Company's required ROE falls. Therefore, the additional risk associated with small size indicates that the Company's ROE should be established above the mean results for the proxy group companies.

[60] Order in Docket No. E017/GR-15-1033, In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota (August 16, 2016), at 55.

[61] *Ass'n. of Businesses Advocating Tariff Equity, et. al., v. Midcontinent Indep. Sys. Operator, Inc., et. al.*, 171 FERC ¶ 61,154 (2020), at ¶ 75. The U.S. Court of Appeals recently vacated FERC Order No. 569 decisions that related to its risk premium model and remanded the case to FERC to reopen the proceedings. However, in its decision, the Court did not reject FERC's inclusion of the size premium to estimate the CAPM. *See*, United States Court of Appeals Case No. 16-1325, Decision No. 16-1325, August 9, 2022 at 20.

B. Capital Expenditures

Q. Please summarize the Company's capital expenditure requirements.

A. The Company's current projections for 2024 through 2028 include approximately $319 million in capital investments for the period.[62] Based on the Company's net utility plant of approximately $265.9 million as of December 31, 2023,[63] the $319 million of anticipated capital expenditures are approximately 124.2 percent of CenterPoint Energy Arkla's net utility plant as of December 31, 2023.

Q. How is the Company's risk profile affected by its substantial capital expenditure requirements?

A. As with any utility faced with substantial capital expenditure requirements, the Company's risk profile may be adversely affected in two significant and related ways: (1) the heightened level of investment increases the risk of under-recovery or delayed recovery of the invested capital; and (2) an inadequate return would put downward pressure on key credit metrics.

Q. Do credit rating agencies recognize the risks associated with elevated levels of capital expenditures?

A. Yes, they do. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure

[62] Data provided by CenterPoint Energy Arkla for planned capital expenditures for the years 2024–2028.
[63] Data provided by CenterPoint Energy Arkla.

on credit metrics and, therefore, credit ratings. To that point, S&P explains the importance of regulatory support for large capital projects:

> When applicable, a jurisdiction's willingness to support large capital projects with cash during construction is an important aspect of our analysis. This is especially true when the project represents a major addition to rate base and entails long lead times and technological risks that make it susceptible to construction delays. Broad support for all capital spending is the most credit-sustaining. Support for only specific types of capital spending, such as specific environmental projects or system integrity plans, is less so, but still favorable for creditors. Allowance of a cash return on construction work-in-progress or similar ratemaking methods historically were extraordinary measures for use in unusual circumstances, but when construction costs are rising, cash flow support could be crucial to maintain credit quality through the spending program. Even more favorable are those jurisdictions that present an opportunity for a higher return on capital projects as an incentive to investors.[64]

Further, CERC currently has a negative outlook from S&P reflecting weak financial measures for the current rating at the parent. S&P noted the possibility of a lower rating for CNP and CERC if the CNP consolidated financial measures weaken due to elevated capital expenditures, higher than expected leverage or weaker than expected cash flow from pending rate cases, resulting in FFO to debt consistently below 12 percent.[65] Therefore, to the extent that the ROE bandwidth parameters and midpoint of CenterPoint Energy Arkla's renewed RSP and resulting rates do not permit the opportunity to recover its capital investments on a regular basis, the

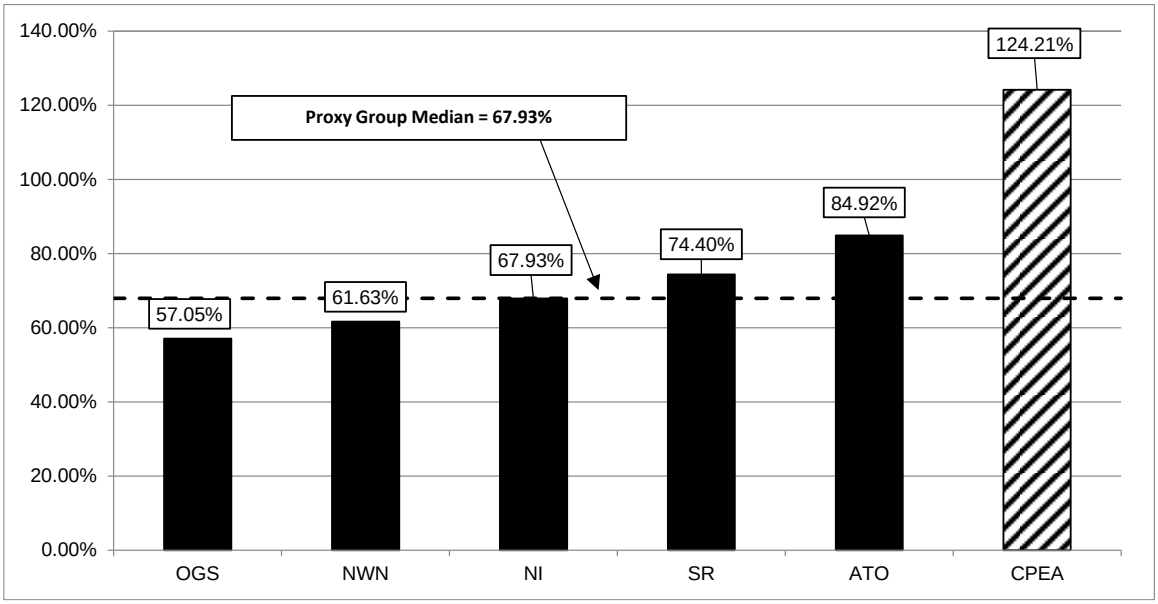
[64] S&P Global Ratings, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 7.
[65] S&P Global Ratings, CenterPoint Energy Resources Corp., April 14, 2024, at 2.

Company will face increased recovery risk and thus increased pressure on its credit metrics.

Q. How do CenterPoint Energy Arkla's capital expenditure requirements compare to those of the proxy group companies?

A. As shown in **Exhibit AEB-10**, I calculated the ratio of expected capital expenditures to net utility plant for CenterPoint Energy Arkla and each of the companies in the proxy group by dividing each company's projected capital expenditures for the period from 2024-2028 by its total net utility plant as of December 31, 2023. As shown in **Exhibit AEB-10** (*see* also Figure 13 below), CenterPoint Energy Arkla's ratio of capital expenditures as a percentage of net utility plant is more than 124 percent, which is approximately 1.83 times the median for the proxy group companies of 67.93 percent. This result indicates significantly greater risk relative to the companies in the proxy group.

Figure 13: Comparison of Capital Expenditures – Proxy Group Companies



Q. Are mechanisms available to the electric and natural gas utilities in Louisiana that enable timely recovery of incremental capital investment?

A. Yes. Many Louisiana electric and natural gas utilities have been approved for and implemented formula rate plans, such as the Company's RSP. Formula rate plans enable utilities to adjust rates annually if earnings are outside of an approved bandwidth (typically 100 basis points) and typically reflect incremental capital additions.

Q. Does CenterPoint Energy Arkla have a comprehensive mechanism that includes recovery of capital additions between rate cases?

A. Yes. The Company's RSP allows it to adjust rates annually if earnings reflecting total cost of service, including incremental capital investment, are outside of the approved ROE bandwidth of 9.45 percent to 10.45 percent. As shown in **Exhibit**

AEB-11, approximately 71 percent of the proxy group utilities recover costs through capital tracking mechanisms, which indicates that most of the proxy group companies consider the mechanisms available to them to be effective tools to recover a return of, and on, incremental capital costs. Further, approximately 38 percent of the proxy group companies have formula rate plans, which allow for periodic adjustments to rates. Considering both types of these mechanisms, CenterPoint Energy Arkla has similar risk from a capital cost recovery standpoint as the proxy group companies.

Q. What are your conclusions regarding the effect of the Company's capital spending requirements on its risk profile and cost of capital?

A. The Company's capital expenditure requirements as a percentage of net utility plant are significant and will continue over the next few years. As such, the continuation of the RSP is critical to the Company's ability to recover its capital costs in a timely basis. Because the majority of the proxy companies have a comprehensive capital tracking mechanism to recover their projected capital expenditures, and several have formula rate plans, the Company's RSP renders it comparable in risk to the proxy group.

C. Severe Weather Risk

Q. Please describe the risk associated with severe weather activity in the Company's service territory.

A. CenterPoint Energy Arkla faces the risk of sudden, unexpected damage from severe storms due to the geographic location of its operations. The propensity for hurricanes and severe weather in the Company's operating area renders it a high-risk region for incurring weather-related infrastructure repair costs and service disruptions. In addition to the need to fund repair costs, severe weather causes the Company to incur unplanned expenses (such as labor costs that may not be recovered in existing rates or unanticipated increases in fuel and commodity prices) and results in lower sales. Together, these effects can reduce the Company's revenue and put strain on its operating cash flow.

As capital-intensive operations, utilities often are cash flow neutral or negative entities, requiring access to short-term credit markets to fund day-to-day operations. In the event of significant storm damage, the Company may not have a reserve needed to fund restoration activities and its internal cash flow may not be sufficient to fund ongoing restoration activities. In that case, the need to efficiently access short-term capital would be heightened. That access will depend on a strong financial profile. In short, regulatory support for storm cost recovery is important to maintain the Company's financial integrity.

Q. Have the credit rating agencies commented on weather related risks?

A. Yes. S&P has stated that:

> [d]amages and related costs from physical risks are escalating in North America as regions designated as high-fire risk expand, and that over the past 6 years, utility credit downgrades directly related to physical risks have increased significantly. Climate change is increasing the frequency of extreme and devastating physical events, including hurricanes, storms, and wildfires, which is heightening risks for North America's IOUs and POUs. Warmer temperatures increase humidity, leading to stronger winds and devastating tropical storms and hurricanes. In other regions, drier and hotter weather conditions are a primary cause for more intensive and severe wildfires. As temperatures rise and the vegetation dries up, the environment becomes more susceptible to the rapid spread of wildfires. When high winds are added to this combustible environment, the probability of a catastrophic wildfire significantly escalates. As such, areas designated as high fire risk have grown across the Western U.S.[66]

Similarly, Fitch has noted the higher regulatory risk associated with extreme weather, and stated that extreme weather, which includes flooding and severe storms, has driven approximately one-quarter of its downgrades in the past 6 years, yet was not a driver of downgrades in the 6 years prior.[67]

[66] S&P Global Ratings. "A Storm is Brewing: Extreme Weather Events Pressure North American Utilities' Credit Quality," November 9, 2023, at 1.
[67] FitchRatings. "Climate Related Risks in Focus," 35th Annual Presentation at EEI Financial Conference. November 13, 2023, at 5, 11.

Q. Have you conducted any analysis to evaluate the hurricane risk in Louisiana as compared to the jurisdictions in which the companies in the proxy group operate?

A. Yes. The Federal Emergency Management Agency ("FEMA") publishes a National Risk Index that ranks the hurricane risk by state in six categories: Very High, Relatively High, Relatively Moderate, Relatively Low, Very Low and Not Applicable. Based on FEMA's rankings of the Expected Annual Loss associated with hurricanes for each state, I have conducted an analysis to compare the hurricane risk of Louisiana to the jurisdictions in which the utility operating subsidiaries of the companies in the proxy group operate. Specifically, I have applied a numeric ranking system to the FEMA rankings with "Not Applicable" assigned the lowest ranking (*i.e.*, a "0") and "Very High" assigned the highest ranking (*i.e.*, a "5"). As shown on **Exhibit AEB-12**, Louisiana is ranked "Relatively High" (*i.e.*, a "4"). These rankings for Louisiana demonstrate a higher risk than the proxy group average ranking of "Relatively Low" (*i.e.*, a "2.00").

Q. What are your conclusions regarding the risk associated with severe weather?

A. The Company's operations are in an area prone to hurricanes and severe weather events. As such, a strong financial profile that enables access to capital on reasonable terms, as well as a supportive regulatory environment that provides timely recovery of costs is critical to the financial health of the Company. Further, based on my analysis, I conclude that the Company operates in areas that are more

prone to significant adverse weather events such as hurricanes than the proxy companies, which increase the risk of CenterPoint Energy Arkla relative to the proxy group and supports an ROE towards the high-end of the range of results from the cost of equity estimation models.

D. Regulatory Risk

Q. Please explain how the regulatory environment affects investors' risk assessments.

A. The ratemaking process is premised on the principle that, for investors and companies to commit the capital needed to provide safe and reliable utility service, the subject utility must have the opportunity to recover the return of, and the market-required return on, invested capital. Regulatory authorities recognize that because utility operations are capital intensive, regulatory decisions should enable the utility to attract capital at reasonable terms when needed and under various market conditions; doing so balances the long-term interests of investors and customers. Utilities must finance their operations and require the opportunity to earn a reasonable return on their invested capital to maintain their financial profiles. CenterPoint Energy Arkla is no exception. In that respect, the regulatory environment is one of the most important factors considered in both debt and equity investors' risk assessments.

From the perspective of debt investors, the authorized return should enable the utility to generate the cash flow needed to meet its near-term financial obligations,

make the capital investments needed to maintain and expand its systems, and maintain the necessary levels of liquidity to fund unexpected events. This financial liquidity must be derived not only from internally generated funds, but also by efficient access to capital markets. Moreover, because fixed income investors have many investment alternatives, even within a given market sector, the utility's financial profile must be adequate on a relative basis to ensure its ability to attract capital under a variety of economic and financial market conditions.

Equity investors require that the authorized return be adequate to provide a risk-comparable return on the equity portion of the utility's capital investments. Because equity investors are the residual claimants on the utility's cash flows (which is to say that the equity return is subordinate to interest payments), they are particularly concerned with the strength of regulatory support and its effect on future cash flows.

Q. Please explain how credit rating agencies consider regulatory risk in establishing a company's credit rating.

A. Both S&P and Moody's consider the overall regulatory framework in establishing credit ratings. Moody's establishes credit ratings based on four key factors: (1) regulatory framework; (2) the ability to recover costs and earn returns; (3) diversification; and (4) financial strength, liquidity and key financial metrics. Of these criteria, regulatory framework and the ability to recover costs and earn returns are each given a broad rating factor of 25 percent. Therefore, Moody's assigns

regulatory risk a 50 percent weighting in the overall assessment of business and financial risk for regulated utilities.[68]

S&P also identifies the regulatory framework as an important factor in credit ratings for regulated utilities, stating: "One significant aspect of regulatory risk that influences credit quality is the regulatory environment in the jurisdictions in which a utility operates."[69] S&P identifies four specific factors that it uses to assess the credit implications of the regulatory jurisdictions of investor-owned regulated utilities: (1) regulatory stability; (2) tariff-setting procedures and design; (3) financial stability; and (4) regulatory independence and insulation.[70]

Q. How does the regulatory environment in which a utility operates affect its access to and cost of capital?

A. The regulatory environment can significantly affect both the access to, and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies' assessment of the regulatory environment. As noted by Moody's, "[f]or rate regulated utilities, which typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations." [71]

[68]Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 4.
[69] Standard & Poor's Global Ratings. Ratings Direct. "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 2.
[70] *Id*.
[71] Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 6.

Moody's further highlighted the relevance of a stable and predictable regulatory environment to a utility's credit quality, noting: "[b]roadly speaking, the Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation."[72]

Q. Have you analyzed the regulatory framework in Louisiana relative to the jurisdictions in which the companies in your proxy group operate?

A. Yes. I have evaluated the regulatory framework in Louisiana on three factors that are important in terms of providing a regulated utility an opportunity to earn its authorized ROE. These are: (1) test year convention (*i.e.*, forecast vs. historical); (2) use of revenue decoupling mechanisms or other clauses that mitigate volumetric risk; and (3) prevalence of capital cost recovery between rate cases. The results of this regulatory risk assessment are shown in **Exhibit AEB-11** and are summarized below.

Test year convention: CenterPoint Energy Arkla uses a historical test year in Louisiana. As shown in **Exhibit AEB-11**, approximately 52 percent of the companies in the proxy group use forecasted or partially forecasted test years. All else equal, the use of a historical test year tends to increase regulatory lag, increasing regulatory risk.

[72] *Id.*

Volumetric Risk: CenterPoint Energy Arkla has protection against volumetric risk in Louisiana, as its RSP adjusts rates if earnings are outside of the approved ROE bandwidth of 9.45 percent to 10.45 percent.[73] Additionally, the Company has a Weather Normalization Adjustment ("WNA") mechanism. Similarly, 91 percent of the operating companies held by the proxy group have some form of protection against volumetric risk, such as weather normalization, revenue decoupling, formula rate plans, and straight fixed-variable rate design. Therefore, I conclude the Company is comparable to its peers on account of its RSP and WNA.

Capital Cost Recovery: CenterPoint Energy Arkla's RSP allows it to recover incremental capital investment on an annual basis. As discussed above, approximately 71 percent of the operating companies held by the proxy group have some form of capital cost recovery mechanism in place. Further, approximately 38 percent have formula rate plans which allow for periodic increases in rates if earnings are outside of an approved bandwidth. Therefore, with the implementation of its RSP, I conclude the Company is comparable to the proxy group companies in the ability to recover capital costs.

[73] LPSC Order No. U-36126.

Q. What are your conclusions regarding the perceived risks related to the Louisiana regulatory environment?

A. As discussed throughout this section of my testimony, both Moody's and S&P have identified the supportiveness of the regulatory environment as an important consideration in developing their overall credit ratings for regulated utilities. Considering the regulatory adjustment mechanisms, many of the companies in the proxy group have timely cost recovery through forecasted test years, cost recovery trackers and revenue stabilization mechanisms (such as formula rate plans) similar to CenterPoint Energy Arkla in Louisiana. On balance, I conclude that CenterPoint Energy Arkla has similar regulatory risk compared to the proxy group.

E. Flotation Cost

Q. What are flotation costs?

A. Flotation costs are the costs associated with the sale of new issues of common stock. These costs include out-of-pocket expenditures for preparation, filing, underwriting, and other issuance costs.

Q. Why is it important to consider flotation costs in the allowed ROE?

A. A regulated utility must have the opportunity to earn an ROE that is both competitive and compensatory to attract and retain new investors. To the extent that a company is denied the opportunity to recover prudently incurred flotation costs, actual returns will fall short of expected (or required) returns, thereby diluting equity share value.

Q. Are flotation costs part of the utility's invested costs or part of the utility's expenses?

A. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet under "paid in capital." They are not current expenses, and, therefore, are not reflected on the income statement. Rather, like investments in rate base or the issuance costs of long-term debt, flotation costs are incurred over time. As a result, the great majority of a utility's flotation cost is incurred prior to the test year but remains part of the cost structure that exists during the test year and beyond, and as such, should be recognized for ratemaking purposes. Therefore, it is irrelevant whether an issuance occurs during the test year, or is planned for the test year, because failure to allow recovery of past flotation costs may deny CenterPoint Energy Arkla the opportunity to earn its required ROR in the future.

Q. Please provide an example of why a flotation cost adjustment is necessary to compensate investors for the capital they have invested.

A. Suppose CNP issues stock with a value of $100, and an equity investor invests $100 in CNP in exchange for that stock. Further suppose that, after paying the flotation costs associated with the equity issuance, which include fees paid to underwriters and attorneys, among others, CNP ends up with only $97 of issuance proceeds, rather than the $100 the investor contributed. CNP invests that $97 in plant used to serve its customers, which becomes part of rate base. Absent a flotation cost

adjustment, the investor will thereafter earn a return on only the $97 invested in rate base, even though she contributed $100. Making a small flotation cost adjustment gives the investor a reasonable opportunity to earn the authorized return, rather than the lower return that results when the authorized return is applied to an amount less than what the investor contributed.

Q. Is the date of CNP's last issued common equity important in the determination of flotation costs?

A. No. As shown in **Exhibit AEB-13**, CNP closed on equity issuances of approximately $1.90 billion and $326 million (for a total of 94.9 million shares of common stock) in September 2018 and June 2010, respectively. The vintage of the issuance, however, is not particularly important because the investor suffers a shortfall in every year thereafter that she is denied a reasonable opportunity to earn a return on the full amount of capital she has contributed. Returning to my earlier example, the investor who contributed $100 is entitled to a reasonable opportunity to earn a return on $100 not only in the first year after the investment, but in every subsequent year in which she has the $100 invested. Leaving aside depreciation, which is dealt with separately, there is no basis to conclude that the investor is entitled to earn a return on $100 in the first year after issuance, but thereafter is entitled to earn a return on only $97. As long as the $100 is invested, the investor should have a reasonable opportunity to earn a return on the entire amount.

Q. Is the need to consider flotation costs recognized by the academic and financial communities?

A. Yes. The need to reimburse shareholders for the lost returns associated with equity issuance costs is recognized by the academic and financial communities in the same spirit that investors are reimbursed for the costs of issuing debt. This treatment is consistent with the philosophy of a fair ROR. According to Dr. Shannon Pratt:

> Flotation costs occur when new issues of stock or debt are sold to the public. The firm usually incurs several kinds of flotation or transaction costs, which reduce the actual proceeds received by the firm. Some of these are direct out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and prospectus preparation costs. Because of this reduction in proceeds, the firm's required returns on these proceeds equate to a higher return to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation costs are not typically applied to operating cash flow, one must incorporate them into the cost of capital.[74]

Q. How did you calculate the flotation costs for CenterPoint Energy Arkla?

A. My flotation cost calculation is based on the costs of issuing equity that were incurred by CNP in its two most recent common equity issuance. That flotation cost percentage is then applied to the proxy group in the DCF analysis to estimate the impact on the cost of equity associated with flotation costs. As shown in **Exhibit AEB-13**, based on the flotation costs previously incurred by CNP, the

[74] Shannon P. Pratt, Cost of Capital Estimation and Applications, Second Edition, at 220–221.

average impact on the proxy group's cost of equity is 13 basis points (*i.e.*, 0.13 percent).

Q. Do your final results include an adjustment for flotation cost recovery?

A. No, they do not. While the final ROE results do not incorporate an explicit adjustment for flotation costs, similar to the small size premium, I have considered the effect of flotation costs, along with the other risk factors present for the Company, in determining where, within the range of analytical results, my recommended ROE for the Company should fall.

VIII. CAPITAL STRUCTURE, COST OF DEBT, OVERALL RATE OF RETURN

A. Capital Structure

Q. Is the capital structure of the Company an important consideration in the determination of the appropriate ROE?

A. Yes. The equity ratio is the primary indicator of financial risk for a regulated utility. All else equal, a higher debt ratio increases the risk to investors. Specifically, for debt holders, higher debt ratios result in a greater portion of the available cash flow being required to meet debt service, thereby increasing the risk associated with the payments on debt. The result of increased risk is a higher interest rate. Further, the incremental risk of a higher debt ratio is more significant for common equity shareholders, whose claim on the cash flow of the Company is secondary to debt

holders. Therefore, the greater the debt service requirement, the less cash flow is available for common equity holders.

Q. What is CenterPoint Energy Arkla's proposed capital structure?

A. The Company proposes to maintain its current authorized hypothetical capital structure consisting of 52 percent common equity and 48 percent total debt that includes 43.70 percent long-term debt and 4.30 percent short-term debt.

Q. Did you conduct any analysis to determine if the requested equity ratio was reasonable?

A. Yes, I did. I reviewed the Company's proposed capital structure and the capital structures of the utility operating subsidiaries of the proxy companies. Because the ROE is set based on the return that is derived from the risk-comparable proxy group, it is reasonable to look to the proxy group average capital structure to benchmark the equity ratio for the Company.

Q. Please discuss your analysis of the capital structures of the proxy group companies.

A. To assess whether the Company's current approved hypothetical capital structure remains appropriate, I calculated the mean proportions of common equity, long-term debt, short-term debt, and preferred equity for the most recent three years for each of the utility operating subsidiaries of the proxy group companies. My analysis of the capital structures of the proxy group companies is provided in

Exhibit AEB-14. As shown in **Exhibit AEB-14**, the equity ratios for the proxy group at the operating utility company level ranged from 45.88 percent to 60.51 percent, with an average of 53.73 percent. CenterPoint Energy Arkla's request to maintain its currently authorized equity ratio of 52 percent is well within the range of equity ratios for the utility operating subsidiaries of the proxy group companies, slightly below the proxy group average, and therefore is reasonable.

Q. Are there other factors to be considered in setting the Company's capital structure?

A. Yes, there are other factors that should be considered in setting the Company's capital structure, namely the challenges that the credit rating agencies have highlighted as placing pressure on the credit metrics for utilities.

For example, while Moody's recently revised its outlook for the utility sector from "negative" to "stable", Moody's continues to note that high interest rates and increased capital spending will place pressure on credit metrics. Thus, Moody's highlights constructive regulatory outcomes that promote timely cost recovery as a key factor in supporting utility credit quality. [75]

S&P also recently revised its outlook for the industry; however, S&P downgraded its outlook from stable to negative.[76] S&P noted that for the fifth consecutive year

[75] Moody's Investors Service, Outlook, "Outlook turns stable on low prices and credit-supportive regulation," September 7, 2023.
[76] S&P Global Ratings, "Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens," February 14, 2024.

it expects downgrades will exceed upgrades with the industry facing significant risks over the near-term as a result of physical risks due to climate change, increased levels of capital spending and cash-flow deficits that are not being "funded in a sufficiently credit supportive manner".[77] In regard to the effect of increased capital spending, S&P noted:

> The industry's capital spending remains at record levels, supporting initiatives for safety, reliability, energy transition, and growth. We consider these trends long term and expect that capital spending will only continue to increase over this decade.
>
> Accordingly, cash flow deficits have increased, pressuring the industry's credit quality. For 2024, our base case assumes that the industry will fund its approximate $85 billion of cash flow deficits with about $40 billion in asset sales and equity issuance.
>
> For 2023, the industry's actual equity issuance was considerably below our expectations, resulting in a weakening of financial performance and credit quality. If this trend persists, credit quality will again likely experience pressure in 2024.[78]

Fitch Ratings ("Fitch") has stated that it is maintaining a "deteriorating outlook" on the U.S. utility sector in 2024 based on elevated capital spending and continuing higher interest rates that place pressure on credit metrics. Fitch notes that bill affordability will remain a major issue for the industry that could affect future regulatory outcomes, and that while it expects authorized ROEs to start trending up with the increase in interest rates, albeit with a lag, given the uncertain

[77] *Id.*
[78] *Id.* at 6–8.

macroeconomic environment and bill pressure on customers, the lag could be longer than in previous cycles.[79]

The credit ratings agencies' continued concerns over the negative effects of inflation, higher interest rates, and increased capital expenditures underscore the importance of maintaining adequate cash flow metrics for the Company in the context of this proceeding.

Q. Will the capital structure and ROE authorized in this proceeding affect the Company's access to capital at reasonable rates?

A. Yes. The level of earnings authorized by the Commission directly affects the Company's ability to fund its operations with internally-generated funds. Both bond investors and rating agencies expect a significant portion of ongoing capital investments to be financed with internally-generated funds. In addition, it is important to recognize that because a utility's investment horizon is very long, investors require the assurance of a sufficiently high return to satisfy the long-term financing requirements of the assets placed into service. Those assurances, which often are measured by the relationship between internally-generated cash flows and debt (or interest expense), depend quite heavily on the capital structure. As a consequence, both the ROE and capital structure are very important to debt and

[79] FitchRatings, "North American Utilities, Power & Gas Outlook," S&P Market Intelligence, November 13, 2023.

equity investors, particularly given the capital market conditions discussed previously.

Q. Did you also evaluate the Company's proposed short-term debt ratio?

A. Yes. The capital structure that is established for ratemaking purposes should reflect the permanent financing of rate base assets. Natural gas utilities often use short-term debt to manage gas costs and as short-term financing prior to investment in assets being placed into service. In many circumstances, when short-term debt is not financing permanent capital it is not included in the ratemaking capital structure. As discussed above, I compared the Company's proposed capital structure to the capital structures of the utility operating subsidiaries of the proxy companies. As shown in **Exhibit AEB-14**, the range established by the proxy group is from 0.00 percent to 13.08 percent. The Company's proposed short-term debt ratio of 4.30 percent is at the low end of the range and slightly below the average short-term debt ratio for operating subsidiaries of the proxy group companies.

Q. Is there any reasonable basis to increase the Company's proposed short-term debt ratio based on the range set by the proxy companies?

A. No. As discussed previously, natural gas distribution utilities such as CenterPoint Energy Arkla often use short-term debt to meet seasonal working capital requirements, which can include financing seasonal gas supply inventories. As a result, the percentage of short-term borrowings tends to exhibit a seasonal pattern, with the highest percentages occurring in the winter. The percentage of short-term

debt varies widely based on seasonal expenses, the timing of refinancing with long-term debt, and the lag in cost recovery. For example, Atmos Energy Corporation (one of my proxy companies) notes:

> We utilize short-term debt to provide cost-effective, short-term financing until it can be replaced with a balance of long-term debt and equity financing that achieves the Company's desired capital structure. Our short-term borrowing requirements are driven primarily by construction work in progress and the seasonal nature of the natural gas business.[80]

Similarly, another of my proxy companies, Spire Inc. notes:

> The Company's short-term borrowing requirements typically peak during colder months when the Utilities borrow money to cover the lag between when they purchase natural gas and when their customers pay for that gas.[81]

The Company's gas distribution system assets are long-lived assets and the ratemaking capital structure should reflect the financing of the rate base with permanent capital. Therefore, any amount of short-term debt included in the ratemaking capital structure should not include the short-term debt used to finance seasonal working capital requirements.

Q. What is your conclusion regarding an appropriate short-term debt ratio for CenterPoint Energy Arkla?

A. CenterPoint Energy Arkla's proposed short-term debt ratio of 4.30 percent is within the range of short-term debt ratios produced by the utility operating subsidiaries of

[80] Atmos Energy Corporation, 2023 SEC Form 10-K, at 59.
[81] Spire Inc., 2023 SEC Form 10-K, at 36.

the proxy companies and slightly below the proxy group average. Therefore, I conclude that Company's proposed short-term debt ratio is reasonable.

B. Cost of Long-Term Debt

Q. What is CenterPoint Energy Arkla's proposed cost of long-term debt?

A. In accordance with the Company's request to renew its current RSP mechanism, the Company proposes a cost of long-term debt of 4.842 percent, based on its June 2024 actual embedded cost of long-term debt. The cost of long-term debt is updated to actual in each annual RSP filing made by the Company with the Commission.

Q. Have you evaluated the Company's proposed cost of long-term debt?

A. Yes, I have reviewed the embedded cost of long-term debt for CenterPoint Energy Arkla. To evaluate the Company's cost of long-term debt, I compared the cost for each of the Company's debt issuances to the Moody's Baa- and A-rated utility bond index yields at the time of issuance. As shown in **Exhibit AEB-15** the embedded cost of debt requested by the Company is, on average, consistent with the utility bond index rates reported by Moody's at the time the debt was issued and is therefore reasonable.

C. Cost of Short-Term Debt

Q. What is CenterPoint Energy Arkla's proposed cost of short-term debt?

A. In accordance with the Company's request to renew its current RSP mechanism, the Company proposes a short-term debt cost of 5.44 percent. As with the cost of

long-term debt, the cost of short-term debt is updated to actual cost in each annual RSP filing made by the Company with the Commission.

Q. Have you evaluated the Company's proposed cost of short-term debt?

A. Yes, I have. To determine the reasonableness of the Company's short-term debt rate, I compared the requested short-term debt cost of 5.44 percent to the 30-day average yield on the 1-Treasury Bill of 5.13 percent as of June 28, 2024.[82] The Company's proposed short-term debt is generally consistent with rates on short-term debt and is reasonable.

D. Overall Rate of Return

Q. Based on the Company's proposed capital structure, ROE, long-term debt cost and short-term debt cost, what is the Company's proposed overall Rate of Return?

A. As shown in Figure 14 below, the recommended overall rate of return is 7.524 percent. As noted above, the costs of debt are updated in each annual RSP filing of the Company.

[82] Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 1-Year Constant Maturity, Quoted on an Investment Basis [DGS1], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DGS1, July 29, 2024.

Figure 14: Overall Test Rate of Return

	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	43.70%	4.842%	2.116%
Short-Term Debt	4.30%	5.440%	0.234%
Common Equity	52.00%	9.950%	5.170%
Overall Rate of Return	100.00%		7.524%

IX. CONCLUSIONS AND RECOMMENDATION

Q. What is your conclusion regarding a fair ROE for CenterPoint Energy Arkla?

A. Figure 15 summarizes the results of my cost of equity analyses. Based on the quantitative and qualitative analyses presented in my Direct Testimony and the business and financial risks of CenterPoint Energy Arkla compared to the proxy group, the Company's request to renew and continue its RSP with a midpoint ROE of 9.95 percent is conservative and is in the interest of customers.

Figure 15: Summary of Analytical Results

Constant Growth DCF			
	Mean Low	Mean	Mean High
30-Day Avg. Stock Price	9.10%	10.20%	11.34%
90-Day Avg. Stock Price	9.11%	10.22%	11.35%
180-Day Avg. Stock Price	9.17%	10.28%	11.41%
Average	9.13%	10.23%	11.37%
	Median Low	Median	Median High
30-Day Avg. Stock Price	9.68%	10.13%	11.58%
90-Day Avg. Stock Price	9.69%	10.08%	11.59%
180-Day Avg. Stock Price	9.75%	10.08%	11.66%
Average	9.70%	10.10%	11.61%
CAPM			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Current *Value Line* Beta	11.59%	11.57%	11.57%
Current Bloomberg Beta	10.67%	10.63%	10.62%
Long-term Avg. *Value Line* Beta	10.52%	10.48%	10.47%
ECAPM			
Current *Value Line* Beta	11.86%	11.84%	11.84%
Current Bloomberg Beta	11.17%	11.14%	11.13%
Long-term Avg. *Value Line* Beta	11.06%	11.02%	11.02%
Risk Premium			
	Current 30-day Average Treasury Bond Yield	Near-Term Blue Chip Forecast Yield	Long-Term Blue Chip Forecast Yield
Risk Premium Results:	10.47%	10.37%	10.35%

Q. What is your conclusion with respect to CenterPoint Energy Arkla's proposed capital structure?

A. My conclusion is that CenterPoint Energy Arkla's proposal to maintain its current authorized hypothetical capital structure consisting of 52 percent common equity

and 48 percent total debt is reasonable when compared to the capital structures of the companies in the proxy group. Further, considering the impact of current and projected market conditions on the cash flows of utilities as raised by the credit rating agencies, the Company's proposed capital structure is reasonable and should be adopted for ratemaking purposes.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.