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BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

CENTERPOINT ENERGY ARKLA, EX PARTE

DOCKET NO. U-36124

In Re: Application for Renewal of CenterPoint Energy Arkla's Rate Stabilization Plan Rider RSP-1 for a 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 employed by Concentric Energy Advisors, Inc. ("Concentric") as a Senior Vice President. My business address is 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts, 01752.

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 more than 20 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. I have included my resume and a summary of testimony I have filed in other proceedings as Exhibit AEB-1 to this testimony.

Q. Please describe Concentric's activities in energy and utility engagements.

A. Concentric provides financial and economic advisory services to energy and utility clients across North America. Our regulatory, economic, and market analysis services include: utility ratemaking and regulatory advisory services; energy market assessments; market entry and exit analysis; corporate and business unit strategy development; demand forecasting; resource planning; and energy contract negotiations. Our financial advisory activities include: buy and sell-side merger, acquisition and divestiture assignments; due diligence and valuation assignments; project and corporate finance services; and transaction support services. In addition, we provide litigation support services on a wide range of financial and economic issues on behalf of clients throughout North America.

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")[1] midpoint of 9.95 percent[2] 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 range of ROEs required by equity investors to invest in CenterPoint Energy Arkla in today's capital market

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1 Throughout my Direct Testimony, I interchangeably use the terms "ROE" and "cost of equity."

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

environment, and assess where the Company's current authorized midpoint ROE falls within 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 13, which were prepared by me or under my direction.

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.[3] While I did not make any specific adjustments to my ROE estimates for any of these factors, I did take them into consideration in aggregate when determining where the Company's ROE falls within the range of analytical results.

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 VI describes my analyses and the analytical basis for the recommendation of the appropriate ROE 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.

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

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 *Hope* and *Bluefield* decisions[4] that established the standards for determining a fair and reasonable allowed ROE, 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 projected capital market conditions 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.
- The Company's regulatory, business, and financial risks relative to the proxy group of comparable companies, and the implications of those risks, including: (1) the Company's small size relative to the proxy group; (2) the Company's capital expenditure requirements; (3) incremental risk associated with severe weather; (4) the regulatory environment in which the

[4] *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"*).

Company operates, including its RSP; and (5) the costs associated with issuing common equity (also referred to as "flotation costs").

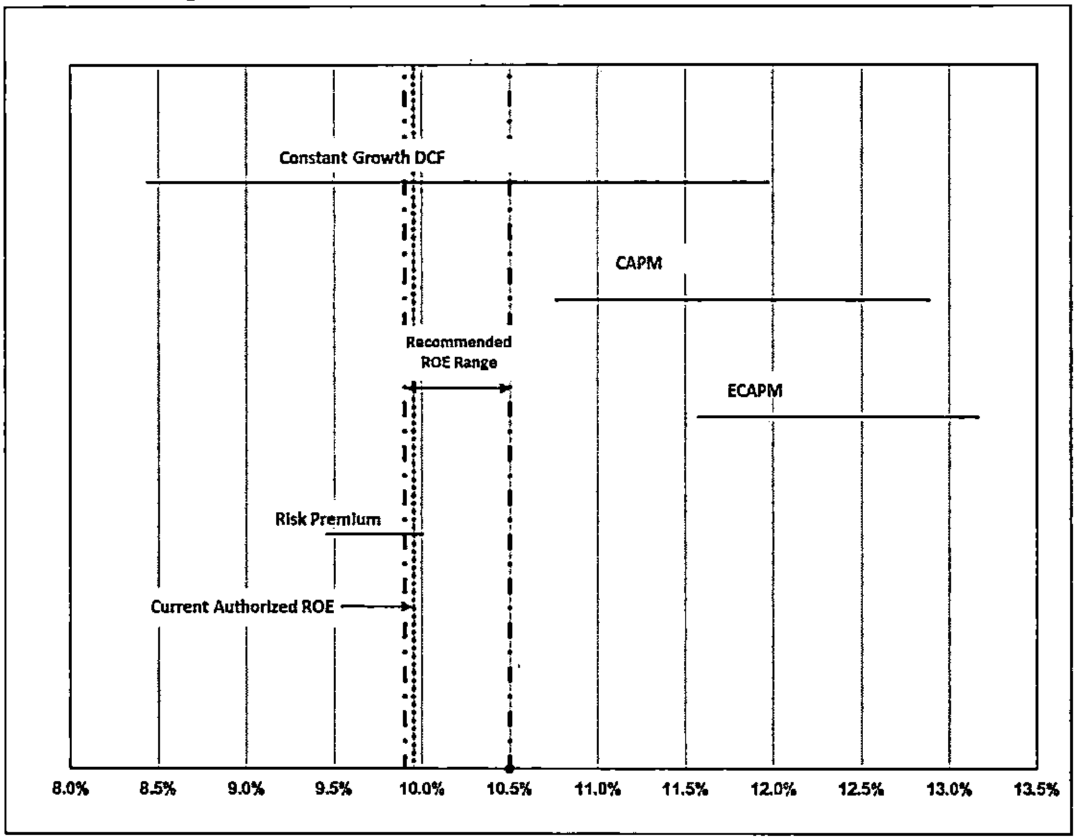
Q. Please explain how you considered those factors.

A. I first considered the range of results produced by the Constant Growth DCF model, the CAPM, Empirical CAPM ("ECAPM"), and Bond Yield Plus Risk Premium analyses. As shown in Figure 1, those ROE estimation models produce a wide range of results. My conclusion as to where within that range of results CenterPoint Energy Arkla's cost of equity falls is based on current capital market conditions and the Company's business and financial risk relative to the proxy group. 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 business and financial risk in the aggregate in comparison to that of the Proxy Group companies when assessing the Company's currently authorized midpoint ROE of 9.95 percent within the reasonable range of analytical results to account for any residual differences in risk.

Q. Please summarize the results of the ROE estimation models that you considered to establish the range of ROEs for CenterPoint Energy Arkla.

A. Figure 1 summarizes the range of results produced by the DCF model and the CAPM, ECAPM, and Risk Premium analyses.

Figure 1: Summary of Cost of Equity Analytical results



As shown in Figure 1 (and in Exhibit AEB-2), the range of the DCF model results is wide, particularly in relation to the results of the other methodologies. While it is common to consider multiple models to estimate the cost of equity, it is particularly important when the range of results is wide.

As shown in Exhibit AEB-4, the mean low Constant Growth DCF results are below any authorized ROE for a natural gas utility in the U.S. since at least 1980.[5,6] Therefore, I conclude that the mean low DCF results do not provide a sufficient

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5 My DCF models generated a mean low, mean, and mean high result. The mean low result is the mean of the proxy group DCF results calculated using the lowest earnings growth rate for each company from Value Line, Yahoo! Finance, or Zacks.

6 Source: Regulatory Research Associates, Rate Case History, January 1, 1980 – June 30, 2021.

risk premium to compensate equity investors for the residual risks of ownership, including the risk that they have the lowest claim on the assets and income of the Company.

As a result, my ROE recommendation considers the mean and mean high results of the Constant Growth DCF model. As shown in Figure 1, relying on the range between the mean and mean high results of the DCF models is supported by the results of the CAPM, ECAPM, and Bond Yield Plus Risk Premium analyses.

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 9.90 percent to 10.50 percent is reasonable. This recommendation reflects the mean to mean high range of the DCF models for the proxy group companies, the range of other analytical approaches and the relative risk of the Company's natural gas operations in Louisiana as compared to the proxy group, and the current capital market conditions. Within that range, the Company's proposal to maintain its midpoint ROE of 9.95 percent is reasonable.

Q. Please summarize the analysis you conducted in determining that CenterPoint Energy Arkla's requested capital structure is reasonable and appropriate.

A. Based on the analysis presented in Section VIII of my testimony, I conclude that 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. To determine if the Company's requested capital structure was reasonable, I reviewed the capital structures of the utility subsidiaries of the proxy companies. As shown in Exhibit AEB-11, the results of that analysis demonstrate that the average equity ratios for the utility operating companies of the proxy group range from 41.92 percent to 60.07 percent, with an average of 52.94 percent. Comparing the Company's proposed hypothetical equity ratio to the proxy group demonstrates that the Company's requested equity ratio is slightly below the average equity ratio for the utility operating subsidiaries of the proxy group companies, and is therefore reasonable. Further, I conclude the Company's proposed equity ratio is reasonable considering that federal tax reform legislation has had a negative effect on the cash flows and credit metrics of regulated utilities.

Q. Please summarize the analysis you conducted in determining that CenterPoint Energy Arkla's requested short-term and long-term cost of debt rates are reasonable and appropriate.

A. As will be discussed in more detail in Section VIII, I compared the cost of each long-term debt issuance for the Company to the market at the time of issuance. To do so, I compared the current embedded cost of long-term debt to the Baa- and A-rated utility bond index yields reported by Moody's Investors Service ("Moody's") as an estimate of the market. That analysis indicates that the Company's embedded cost of long-term debt is reasonable.

For the proposed cost of short-term debt, I compared the Company's most recent actual short-term debt cost of 0.26 percent to the yields for 1-year A-rated and BBB-rated utility debt as reported by Bloomberg Professional.[7] Because the Company's proposed short-term debt rate is below recent yields of A-rated and BBB-rated 1-year utility 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

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

principle that the result reached, as opposed to the methodology employed, is the controlling factor in arriving at just and reasonable rates.[8]

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 expenses, provide its shareholders with a reasonable rate of return, and attract new capital"[9]

This guidance is in accordance with the *Hope* and *Bluefield* decisions and the principles I employed to estimate the ROE 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. To the extent the Company is provided the opportunity to earn

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[8] *Hope,* 320 U.S. 591 (1944); *Bluefield,* 262 U.S. 679 (1923).
[9] *Cleco v. Public Service Com'n,* 508 So. 2d 1361, 1364 (La. 1987)

its market-based cost of capital, neither customers nor shareholders are disadvantaged.

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 natural gas and electric utilities. Therefore, the ROE awarded to a utility sends an important signal to investors regarding is the level of regulatory support for financial integrity, dividends, growth, and fair compensation for business and financial risk. Simply put, the cost of capital represents an opportunity cost to investors. If higher returns are available for other investments of comparable risk, investors have an incentive to direct their capital to those investments. Thus, an authorized ROE significantly below authorized ROEs for other natural gas and electric utilities can inhibit the Company's ability to attract capital for investment in Louisiana.

Furthermore, because CenterPoint Energy Arkla is an indirect subsidiary of CenterPoint Energy, Inc. ("CNP"),[10] it competes with the other CNP entities for discretionary investment capital. In determining how to allocate its finite discretionary capital resources, it would be reasonable to expect CNP to consider the authorized ROE of each of its subsidiaries and operating divisions. As shown

10 CenterPoint Energy Arkla is a division of CenterPoint Energy Resources Corp., which is an indirect wholly owned subsidiary of CNP.

in Figure 2 below, CenterPoint Energy Arkla's current authorized midpoint ROE of 9.95 percent is in the middle of the range of authorized ROEs for CNP's regulated utilities, and is generally consistent with the mean and median of the current authorized ROEs for CNP affiliates.

Figure 2: Authorized ROE for CNP Utilities[11,12]

Company	State	Service Type	Order Date	ROE
CenterPoint Energy Resources	Arkansas	Natural Gas	9/2/2016	9.50%
Indiana Gas Co.	Indiana	Natural Gas	2/13/2008	10.20%
Southern Indiana Gas & Elec Co	Indiana	Electric	4/27/2011	10.40%
Southern Indiana Gas & Elec Co	Indiana	Natural Gas	8/1/2007	10.15%
CenterPoint Energy Resources	Louisiana - Arkla	Natural Gas	10/23/15	9.95%
CenterPoint Energy Resources	Louisiana - Entex	Natural Gas	10/23/15	9.95%
CenterPoint Energy Resources	Minnesota	Natural Gas	3/1/2021	N/A
CenterPoint Energy Resources	Mississippi	Natural Gas	9/22/2020	9.29%
Vectren Energy Delivery Ohio	Ohio	Natural Gas	8/28/2019	N/A
CenterPoint Energy Resources	Oklahoma	Natural Gas	7/14/2020	10.00%
CenterPoint Energy Houston	Texas	Electric	3/9/2020	9.40%
CenterPoint Energy Resources	Texas (Beaumont)	Natural Gas	6/16/2020	9.65%
CenterPoint Energy Resources	Texas (South)	Natural Gas	5/22/2018	9.80%
CenterPoint Energy Resources	Texas (Houston)	Natural Gas	5/23/2017	9.60%
CenterPoint Energy Resources	Texas (Coast)	Natural Gas	5/23/2017	9.60%
			Mean	9.81%
			Median	9.80%

Q. What are your conclusions regarding regulatory guidelines?

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 services, a utility must have the opportunity to recover the return of, and the market-required

11 Sources: S&P Global Market Intelligence, CenterPoint Energy Inc., 2020 10-K, pages 72-74; CenterPoint Energy, Inc. Regulatory Information, Natural Gas Distribution, March 2021; Company provided data.

12 The figure represents the current authorized ROEs for CNP's subsidiaries.

return on, its invested capital. 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; doing so balances the long-term interests of the utility and its ratepayers.

The financial community carefully monitors the current and expected financial condition of utility companies, and the regulatory framework in which they operate. In that respect, the regulatory framework is one of the most important factors in both debt and equity investors' assessments of risk. The Commission's order in this proceeding, therefore, should provide the Company with the opportunity to earn an ROE that is: (1) adequate to attract capital at reasonable terms under a variety of economic and financial market conditions; (2) sufficient to ensure good financial management and firm integrity; and (3) commensurate with returns on investments in enterprises with similar risk. To the extent CenterPoint Energy Arkla is authorized the opportunity to earn its market-based cost of capital, the proper balance between customers' and shareholders' interests is achieved.

IV. CAPITAL MARKET CONDITIONS

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

A. The ROE estimation models I apply rely on market data that are specific to the proxy group in the cases of the DCF model and the Beta coefficient in the CAPM, or the market risk premium and risk-free rate in the cases of the CAPM and Bond

Yield Plus Risk Premium analyses. The results of ROE estimation models can be affected by prevailing market conditions at the time the analysis is performed. Because the ROE that is established in a rate proceeding is intended to be forward-looking, the practitioner uses current and projected market data, specifically stock prices, dividends, growth rates, and interest rates in the ROE models to estimate the required return for the subject company.

Analysts and regulatory commissions recognize that current market conditions affect the results of the ROE estimation models. Accordingly, it is important to consider the effect of these conditions on the ROE estimation models when determining the appropriate range and recommended ROE for a future period. If investors do not expect current market conditions to be sustained in the future, it is possible that the ROE estimation may not provide an accurate estimate of investors' required return during that rate period. Therefore, it is very 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) the dramatic shifts in market conditions during 2020 and the expectations for 2021, and the effect of these changes on the assumptions used in the ROE estimation models; and (2) effects of federal tax reform on utility cash flows. In this section, I discuss each of these factors and how it affects the models used to estimate the cost of equity for regulated utilities.

A. Economic Recovery and Performance of the Utility Sector

Q. Do recent economic projections indicate the expectation for a strong economic recovery in 2021?

A. Yes. The Federal Open Market Committee ("FOMC") issued its Summary of Economic Projections in June 2021, where the FOMC's median projection for GDP growth from Q4 2020 to Q4 2021 is 7.0 percent, up from 6.5 percent in the FOMC's March 2021 report.[13] The Congressional Budget Office ("CBO") issued an update to its outlook on economic conditions on July 1, 2021. In that report, the CBO projected strong GDP growth for 2021 and significant strength in overall economic conditions:

- Real GDP growth of 7.4 percent, which is a significant change from the negative 2.4 percent growth rate in 2020.
- Inflation indicators at or above the 2.0 percent threshold in 2021 and continuing through 2031.
- Labor force expected to be restored to pre-pandemic levels in 2022.
- Interest rates on federal borrowing increasing through 2031.[14]

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[13] Federal Open Market Committee, Summary of Economic Projections, June 16, 2021, at 2; Federal Open Market Committee, Summary of Economic Projections, March 17, 2021, at 2.

[14] Congressional Budget Office, An Update to the Budget and Economic Outlook 2021 to 2031, July 2021.

Further, consumer confidence has been projected to be at a high level, exceeding levels established prior to the pandemic.[15] Finally, Bloomberg recently forecasted growth of 6.9 percent, which would largely reverse the contraction seen in 2020, the definition of a "V" shaped recovery. Bloomberg also projects inflation to increase in the months ahead.[16] High economic growth is expected to drive an increase in U.S. bond yields and inflation in 2021, which may result in modest monetary tightening.[17] U.S. bond yields have already rebounded considerably in the past year, with 30-year Treasury bond yields up 79 basis points between April 1, 2020 and June 30, 2021. These trends indicate strong economic recovery over the next year, with robust consumer spending expected.

Q. Please summarize the recent monetary policy of the Federal Reserve.

A. In response to the COVID-19 pandemic, the Federal Reserve has:

- decreased the Federal Funds rate twice in March 2020, resulting in a target range of 0.00 percent to 0.25 percent;
- increased its holdings of both Treasury and mortgaged-back securities;
- started expansive programs to support credit to large employers, in particular the Primary Market Corporate Credit Facility to provide liquidity for new issuances of corporate bonds, and the Secondary Market Corporate Credit Facility to provide liquidity for outstanding corporate debt issuances; and

15 IPSOS-Forbes Advisor U.S. Consumer Confidence Weekly Tracker, accessed July 1, 2021.
16 Bloomberg, "It's a 'V'- World Growth to Hit 60-Year High, April 13, 2021.
17 Van Roye, Bjorn and Tom Orlik. "Tantrums, Spillovers and the $1.9T U.S. Stimulus." Bloomberg Briefs, accessed April 13, 2021.

- supported the flow of credit to consumers and businesses through the Term Asset-Backed Securities Loan Facility.

In addition, Congress passed the Coronavirus Aid, Relief, and Economic Security ("CARES") Act in March 2020; the Consolidated Appropriations Act, 2021 in December 2020; and the American Rescue Plan Act in March 2021; these pieces of legislation included $2.2. trillion, $900 billion and $1.9 trillion, respectively, in fiscal stimulus aimed at mitigating the economic effects of COVID-19. These expansive monetary and fiscal programs helped to temper the economic effects of the COVID-19 pandemic and continue to support the economy as it recovers from the COVID-19 recession.

Q. Has the Federal Reserve signaled a continuation of its accomodative monetary policy?

A. Yes. On June 16, 2021, the Federal Reserve Chairman stated that:

> The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. With inflation having run persistently below this longer-run goal, the Committee will aim to achieve inflation moderately above 2 percent for some time so that inflation averages 2 percent over time and longer-term inflation expectations remain well anchored at 2 percent. The Committee expects to maintain an accommodative stance of monetary policy until these outcomes are achieved.[18]

The Federal Reserve also indicated that it has kept the federal funds rate near zero and will continue to maintain its sizeable asset purchases of both treasuries and

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[18] FOMC Press Release, June 16, 2021; https://www.federalreserve.gov/monetarypolicy/fomc.htm.

mortgage-backed securities until substantial further progress has been made toward its dual goals of maximum employment and price stability.[19]

Q. Are there indications the Federal Reserve will start to slowly end some of the accommodative policy tools that were used to support the economy during COVID-19?

A. Yes. On June 2, 2021, the Federal Reserve announced that it plans to start selling the corporate bonds and exchange-traded funds ("ETF") that it purchased to support the corporate bond market during the COVID-19 pandemic.[20] The process will be gradual, but the Federal Reserve expects to complete the sale of its corporate bond holdings by the end of 2021. This decision by the Federal Reserve is one of the first steps in the Federal Reserve's process of normalizing monetary policy. It is expected that if the economy continues to improve, the Federal Reserve will begin to discuss reducing the asset purchases of both Treasuries and mortgage-backed securities in either the summer or fall of 2021.[21]

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19 *Id.*

20 Scaggs, Alexandra. "The Federal Reserve Is Going to Sell Its Corporate Bond Portfolio. What It Means." Barrons, 3 June 2021, www.barrons.com/articles/federal-reserve-corporate-bond-portfolio-51622679701. *See also*, Federal Reserve Board of Governors, Press Release, June 2, 2021.

21 *Id.*

Q. What effect, if any, will the Federal Reserve's accommodative monetary policy have on long-term interest rates over the near-term?

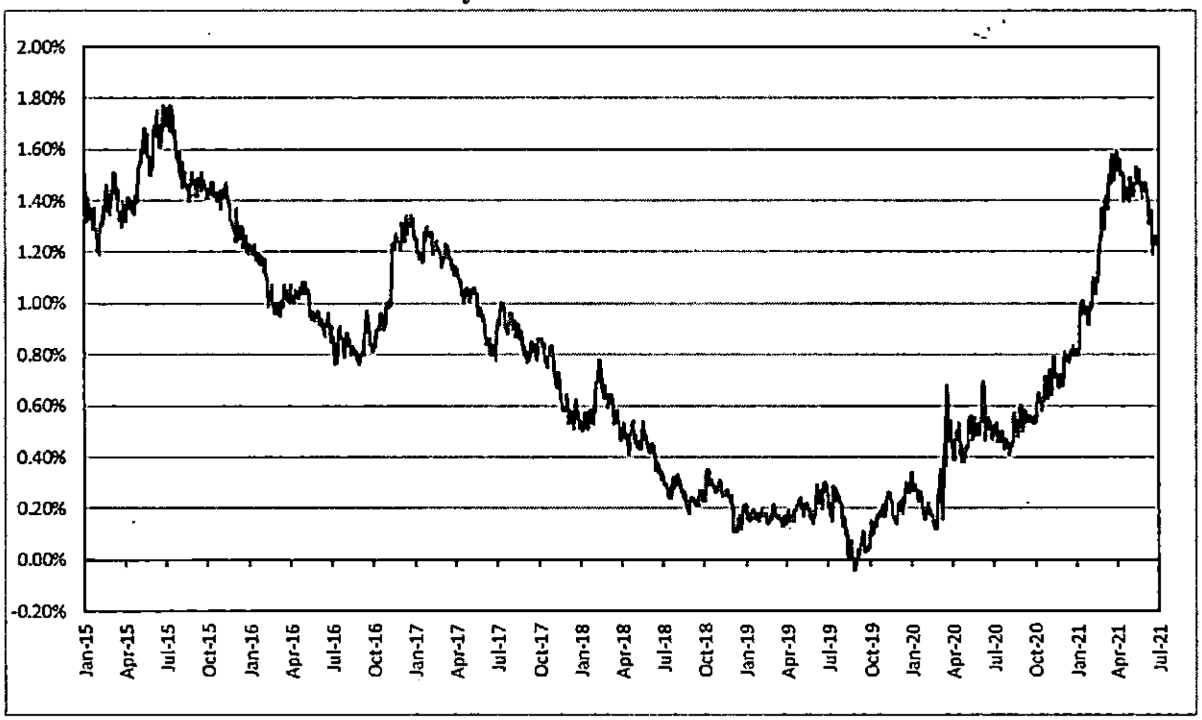
A. The Federal Reserve has acknowledged that they will keep the federal funds rate near zero for the near-term. The goal of the accommodative monetary policy is to achieve the Federal Reserve's dual mandate of maximum employment and stable prices. However, while the current accommodative monetary policy will keep short-term interest rates low, it does not have a direct effect on long-term interest rates. Long-term interest rates can increase even though monetary policy is accommodative. In fact, one of the leading indicators used by investors to determine what stage of the business cycle the economy is in is to review the yield curve which shows the difference between long-term and short-term interest rates. A flat or inverted yield curve is when long-term interest rates are equivalent to or less than short-term interest rates and usually occurs prior to a recession. Conversely, a steepening yield curve is when the difference between long-term interest rates and short-term interest rates is increasing and indicates that the economy is entering a period of economic expansion and inflation following a recession.[22]

[22] "What is a yield curve", Fidelity.com. https://www.fidelity.com/learning-center/investment-products/fixed-income-bonds/bond-yield-curve

Q. Have you reviewed the yield curve to determine investors' expectations regarding the economy over the near term?

A. Yes, I have. I reviewed the yield curve, calculated as the difference between the yield on the 10-year Treasury Bond and the yield on the 2-year Treasury Bond from January 2015 through June 2021. I selected the 10-year Treasury Bond yield to represent long-term interest rates and the yield on the 2-year Treasury Bond to represent short-term interest rates. As shown in Figure 3 below, the yield curve has been steepening, with the spread increasing to approximately 120 basis points as of June 30, 2021, which is a level not seen since early 2017. The steepening of the yield curve indicates that investors expect economic growth and inflation to increase in the near-term, and as a result they are rotating out of long-term government bonds to avoid being locked into low interest rates for the long-term. The steep yield curve signals that higher yields are required by investors to invest in long-term government bonds.

Figure 3: 10-year Treasury Bond Yield Minus 2-year Treasury Bond Yield – January 2015 – June 2021[23]



Q. What have equity analysts said about the steepening of the yield curve?

A. Several equity analysts have noted that the yield curve is steepening and is expected to continue to steepen into 2021, which is an indicator that the economy is entering the early expansion phase of the business cycle. For example, in a recent Bloomberg article, Morgan Stanley indicated that they expected a "V-shaped" economic recovery and therefore advised investors to underweight government

[23] Federal Reserve Bank of St. Louis, 10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity [T10Y2Y], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/T10Y2Y, June 30, 2021.

bonds and overweight equities.[24] Similarly, in a Bloomberg article, Goldman Sachs noted the following:

> As the economic recovery consolidates next year, we expect to see more differentiation across the curve, with policymakers committing to keeping front-end rates low, but higher expectations for real growth and inflation driving long-end rates higher," Goldman strategists including Zach Pandl wrote in the report, released Tuesday.
>
> This should be especially true in the U.S. due to the Federal Reserve's new average inflation targeting framework, which commits the central bank to holding off on rate hikes until inflation has reached its target and is on track to overshoot it.[25]

More recently, BTG Pactual Asset Management noted the following regarding increasing interest rates:

> We're talking about a fair amount of stimulus -- both fiscal and monetary -- going forward," BTG Pactual Asset Management's John Fath said, referring to the $1.9 trillion pandemic-relief bill and prospects for more, along with the Federal Reserve's pledge to stay accommodative. "We potentially could grow a lot faster and inflation could come into the horizon a lot quicker," which begets higher rates.[26]

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24 Ossinger, Joanna. "Morgan Stanley Says Go Risk-On and 'Trust the Recovery' in 2021." Bloomberg.com, 15 Nov. 2020, www.bloomberg.com/news/articles/2020-11-16/morgan-stanley-says-go-risk-on-and-trust-the-recovery-in-2021.

25 McCormick, Liz. "Goldman Goes All-In for Steeper U.S. Yield Curves as 2021 Theme." Bloomberg.com, 10 Nov. 2020, www.bloomberg.com/news/articles/2020-11-10/goldman-goes-all-in-for-steeper-u-s-yield-curves-as-2021-theme.

26 Spratt, Stephen, et al. "Treasury Yields Leap Past Key Level to 1.64%, Highest in a Year." Bloomberg.com, Bloomberg, 12 Mar. 2021, www.bloomberg.com/news/articles/2021-03-12/treasury-yields-surge-to-test-key-level-in-sudden-selling-bout.

Finally, Barron's noted that Citigroup also projected that the yield on the 10-year Treasury Bond is expected to increase in 2021, which prompted Citigroup's recommendation to overweight equities and favor cyclical sectors over defensive sectors, such as utilities.[27]

Q. Have equity analysts specifically commented on the performance of the utility sector over the near-term?

A. Yes. In a recent article, Barron's conducted its Big Money poll of 152 professional investors regarding the outlook for the next twelve months. The majority of respondents projected the yield on the 10-year Treasury Bond to be between 2.00 percent and 2.50 percent at the end of the next twelve months,[28] which is an increase from the current 30-day average 10-year Treasury Bond yield as of June 30, 2021 of 1.54 percent.[29] Furthermore, the utility sector was selected as the sector that will perform the worst over the next twelve months.[30] Therefore, the professional investors surveyed by Barron's are projecting that utilities will underperform the broader market in 2021.

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27 Keown, Callum. "10-Year Treasury Yields Will Rise Into 2021, Citi Says. This 'Aggressive' Equity Strategy Can Outperform." Barrons.com, 16 Nov. 2020, www.barrons.com/articles/10-year-treasury-yields-will-rise-into-2021-citi-says-this-aggressive-equity-strategy-can-outperform-51605543920.

28 Jasinski, Nicholas. This Bull Market Is Far From Over, Pros Say. Where They're Investing Now. Barron's, 26 Apr. 2021, www.barrons.com/articles/stocks-have-more-room-to-rise-says-barrons-big-money-poll-51619222301?mod=past_editions.

29 Source Federal Reserve Bank of St. Louis, 10-Year Treasury Constant Maturity [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DGS10, June 30, 2021

30 *Id.*

Similarly, Fidelity recently recommended underweighting the utility sector and ranked the utility sector last in its relative strength rankings which measures each sectors performance relative to the broader market.[31]

Finally, Charles Schwab has classified the utilities sector overall as "Underperform," noting that:

> The Utilities sector has tended to perform relatively better when concerns about slowing economic growth resurface, and to underperform when those worries fade. That's partly because of the sector's traditional defensive nature and steady revenues—people need water, gas and electric services during all phases of the business cycle. Meanwhile, the low interest rates that typically come with a weak economy provide cheap funding for the large capital expenditures required in this industry.
>
> However, while interest rates are low from a historical perspective, they have ramped higher as the economy continues to expand and stimulus is raising inflation expectations. On the flip side, there is the potential for a renewed decline in the economy to push rates even lower, or there could be significant government funding to Utilities as part of clean-energy initiatives that would benefit the sector's profit outlook.[32]

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31 Fidelity, "Q2 2021 sector scorecard: The financials and energy sectors may be areas to watch as inflation returns," May 5, 2021.

32 Charles Schwab, "Schwab Sector Insights: A view on 11 Equity Sectors," May 13, 2021.

Q. How has the utility sector performed historically during periods where the yield curve is steepening, and the economy is in the early stage of the business cycle?

A. In a recent report, Fidelity noted that the utility sector has historically been one of the worst performing sectors during the early phase of the business cycle with a geometric average return of -10.5 percent.[33] This conclusion is further supported by studies conducted by both Goldman Sachs and Deutsche Bank that 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).[34] This is important because if the utility sector underperforms over the near term, and prices of utility stocks decline, then the DCF model, which relies on historical averages of share prices, is likely to understate the cost of equity for the Company over the near term, or the period that the Company's renewed RSP and resulting rates will be in effect.

Q. Why do utilities historically underperform in the early stage of the business cycle?

A. Utilities are considered a defensive sector and are therefore less affected by changes in the business cycle than other market sectors since consumers need energy during all phases of the business cycle. Therefore, utilities tend to perform well during

33 Fidelity Investments, "The Business Cycle Approach to Equity Sector Investing," 2020.

34 Lee, Justina. "Wall Street Is Rethinking the Treasury Threat to Big Tech Stocks." Bloomberg.com, 11 Mar. 2021, www.bloomberg.com/news/articles/2021-03-11/wall-street-is-rethinking-the-treasury-threat-to-big-tech-stocks.

periods of uncertainty where the prospect of slowing economic growth increases. As Fidelity noted, historically utilities outperform the market in latter and recession phases of the business cycle.[35] This relationship mostly held during the past few years as the share prices of utilities were bid up to unsustainable levels as investors responded to economic uncertainty due to the trade war between the U.S. and China and ultimately the COVID-19 pandemic.

Q. What is the effect of high valuations of utility stocks on the DCF model?

A. High valuations have the effect of depressing dividend yields, which results in overall lower estimates of the cost of equity resulting from the DCF model. The relatively low dividend yields demonstrated over the longer historical period imply that the ROE calculated using historical market data in the DCF model may understate the forward-looking cost of equity. Therefore, the DCF model results must be interpreted with extreme caution so as not to understate the cost of equity during the period that CenterPoint Energy Arkla's renewed RSP and resulting rates will be in effect.

[35] Fidelity Investments, "The Business Cycle Approach to Equity Sector Investing," 2020.

B. Effect of Tax Reform on the ROE and Capital Structure

Q. Should the effect of tax reform be considered in determining the cost of equity for CenterPoint Energy Arkla?

A. Yes. The credit rating agencies have commented on the adverse effect of the Tax Cuts and Jobs Act ("TCJA") on the cash flows of regulated utilities.[36] Specifically, the TCJA has reduced utility revenues due to lower federal income taxes in the revenue requirement, the elimination of bonus depreciation, and required the return of "unprotected" excess accumulated deferred income taxes ("EDIT").[37] This change in revenue reduced funds from operations metrics across the sector, and absent regulatory mitigation strategies, has led to weaker credit metrics and negative ratings actions for some utilities.[38]

Q. What has been the effect of the TCJA on utility financial risk?

A. The TCJA reduced utilities' financial flexibility through the loss of bonus depreciation and the return of EDIT. In 2018 when the TCJA was passed, credit rating agencies initially reduced the credit outlook for utilities. Moody's has since followed up on that action by downgrading the credit ratings of more than 30

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36 Standard & Poor's Ratings, "Industry Top Trends 2019, North America Regulated Utilities", November 8, 2018; FitchRatings, Special Report, What Investors Want to Know, "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector", January 24, 2018.

37 I understand that the amount of EDIT returned to customers by the Company has been significant and reduced rate increases. See Section XIV of LPSC General Order No. 2-7-2019 (R-34754), and letter dated June 14, 2019 from CenterPoint Energy Arkla to LPSC Secretary showing the amount of EDIT returned to customers by the Company.

38 Standard & Poor's Ratings, "Industry Top Trends 2019, North America Regulated Utilities", November 8, 2018; FitchRatings, Special Report, What Investors Want to Know, "Tax Reform Impact on the U.S. Utilities, Power & Gas Sector", January 24, 2018.

utilities related in part to the TCJA beginning in June 2018 and continuing into 2021.

Q. Does tax reform continue to present challenges for utilities?

A. Yes. While the TCJA was passed in 2018, the reforms resulted in a permanent change in the cash flow metrics of utilities. Credit rating agencies have recognized this change in metrics and have proposed that increasing the ROE and equity component of utility capital structures can improve credit metrics.

Q. Have state regulatory commissions recognized that the TCJA has had an adverse impact on utility cash flows?

A. Yes. The Oregon Public Utilities Commission ("Oregon PUC"),[39] the Wyoming Public Service Commission ("Wyoming PSC"),[40] and the Utah Public Service Commission ("Utah PSC")[41] have acknowledged the negative effect of the TCJA on the cash flow of utilities.

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39 See *In the Matter of Avista Corporation, dba Avista Utilities, Application for Authorization to Issue 3,500,000 Shares of Common Stock*, Docket UF 4308, Order No. 19-067 (Feb. 23, 2019); *In the Matter of Avista Corporation, dba Avista Utilities, Application for Authorization to Issue and Sell $600,000,000 of Debt Securities*, UF 4313, Order No. 19-249 (July 30, 2019); *In the Matter of Portland General Electric Company, Request for Authority to Extend the Maturity of an Existing $500 Million Revolving Credit Agreement*, Docket UF 4272(3), Order No. 19-025 (Jan. 23, 2019).

40 *In the Matter of Questar Gas Company dba Dominion Energy Wyoming's Application for Approval of Amended Stipulation Previously Approved in Docket No. 30010-150-GA-16*, Docket No. 30010-180-GA-18 (Record No. 15138) (Aug. 20, 2019).

41 Report and Order, Docket No. 19-057-02, Dominion Energy Utah, February 25, 2020, at 6.

Further, in a December 2019 order for Georgia Power Company, the Georgia Public Service Commission found it appropriate to authorize a higher equity ratio as a means to address the negative impacts of the TCJA:

> As pointed out by the Company, in April 2018, this Commission adjusted the Company's equity ratio upward from the 51%, which was previously approved in the 2013 Rate Case, to 55% as part of the Tax Cuts and Jobs Act settlement between the Company and Commission PIA Staff in Docket No. 36989 ("Tax Reform Settlement"). The equity adjustment approved in the Tax Reform Settlement was implemented to address the negative implications of tax reform, provide support for maintaining the Company's credit profile, and allow the Company timely access to capital markets and the ability to borrow at reasonable interest rates. Based on the evidence presented, the Commission finds and concludes that the Settlement Agreement's proposed capital structure of 56% common equity level is just and reasonable considering all the evidence presented and is necessary to avoid a credit rating downgrade.[42]

Q. Have state regulatory commissions considered market events and the utility's ability to attract capital in determining the equity return?

A. Yes. In a recent rate case for Consumers Energy Company, the Michigan Public Service Commission ("Michigan PSC") noted that it is important to consider how a utility's access to capital could be affected in the near-term as a result of market reactions to global events like those that have occurred in the recent past.[43] Specifically, the Michigan PSC noted:

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[42] Georgia Public Service Commission Docket No. 42516, Short Order Adopting Settlement Agreement as Modified, December 17, 2019, at 7-8.

[43] Michigan Public Service Commission Order, Cause No. U-20697, Consumers Energy Company, December 17, 2020, at 165.

> [i]n setting the ROE at 9.90%, the Commission believes there is an opportunity for the company to earn a fair return during this period of atypical market conditions. This decision also reinforces the belief, as stated in the Commission's March 29 order, "that customers do not benefit from a lower ROE if it means the utility has difficulty accessing capital at attractive terms and in a timely manner." These conditions still hold true based on the evidence in the instant case. The fact that other utilities have been able to access capital despite lower ROEs, as argued by many intervenors, is also a relevant consideration. *It is also important to consider how extreme market reactions to global events, as have occurred in the recent past, may impact how easily capital will be able to be accessed during the future test period should an unforeseen market shock occur. The Commission will continue to monitor a variety of market factors in future rate cases to gauge whether volatility and uncertainty continue to be prevalent issues that merit more consideration in setting the ROE.*[44]

The Michigan PSC references "global events" and the overall effect the events could have on the ability of a utility to access capital. Consistent with the Michigan PSC's views, it is important to consider current market conditions and the impact of those conditions on the access to and cost of capital, and to position utilities to be able to maintain access in rapidly changing market conditions.

Q. How would potential increases in Federal taxes affect the Company?

A. If Federal taxes are increased, it will be important for those increases to be recognized and addressed with expediency and efficiency so that the utilities have the opportunity to recover those costs on a timely basis, similar to the way the LPSC required utilities, including CenterPoint Energy Arkla, to recognize the effects of

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[44] *Id.*, at 43 (emphasis added).

the TCJA pursuant to Commission General Order No. 11-30-2018 (R-34754) and General Order No. 2-7-2019 (R-34754). Failure to timely implement a change in tax recovery would result in greater stress on the Company's financial metrics, potentially reducing the earned ROE, which could have negative credit implications.

C. Conclusion

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

A. The important conclusions regarding capital market conditions are:

- As markets continue to rebound from the uncertainty and volatility that characterized capital markets in 2020 and interest rates continue to increase from the market lows in August 2020, it is reasonable that equity investors would require a higher return on equity to compensate for the additional risk associated with owning common stock. Likewise, if natural gas utilities continue to underperform the broader market, as expected by analysts, this will indicate additional risk associated with these investments.
- Investors' current expectations regarding the economy highlights the importance of using forward-looking inputs in the models used to estimate the cost of equity.
- Credit rating agencies have demonstrated concern about the cash flow metrics of utilities, related to the negative effects of both current market conditions and the TCJA, which increases investor risk expectations for utilities. Therefore, it is increasingly important to consider a rate of return

and capital structure that support the Company's cash flow metrics to enable its ability to attract capital on reasonable terms during the period the Company's renewed RSP and resulting rates will be in effect.

V. PROXY GROUP SELECTION

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 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. 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, with total retail sales and transportation revenue in 2020 of approximately $90.3 million made up of 68.3 percent residential, 22.2 percent commercial and industrial, and 9.6 percent transportation.[45] As of December 31, 2020, CenterPoint Energy Arkla's net utility natural gas plant in Louisiana was approximately $170.76 million.[46] CERC's and CNP's long-term corporate or issuer ratings are shown in Figure 4 below:

Figure 4: Long-Term Corporate/Issuer Credit Ratings[47]

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

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45 Company provided data.

46 Company provided data.

47 S&P Global Ratings and Moody's Investor's Service, as of June 30, 2021.

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

A. I began with the group of 10 companies that 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 60.00 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 5 below.

Figure 5: Proxy Group

Company	Ticker
Atmos Energy Corporation	ATO
New Jersey Resources Corporation	NJR
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
ONE Gas, Inc.	OGS
South Jersey Industries, Inc.	SJI
Southwest Gas Corporation	SWX
Spire, Inc.	SR

Q. Did you adjust the operating income data for any of the companies included in your proxy group to remove the effects of a one-time financial event?

A. Yes, I did. As shown in Exhibit AEB-3, I relied on the three-year average of operating income from 2018 to 2020 for two of my proxy group screening criteria: (a) the total operating income from regulated operations; and (b) regulated operating income from gas distribution operations. The operating income data from 2018 through 2020 for NiSource Inc. ("NiSource") was affected by a one-time financial event. The event was related to the company's former operating subsidiary, Columbia Gas of Massachusetts. On September 13, 2018, Columbia Gas of Massachusetts, experienced a significant event as a result of over pressured lines on its system. The incident resulted in immediate financial ramifications for NiSource in 2018 with NiSource reporting operating income for its natural gas distribution operations segment in 2018 of approximately -$254.1 million.[48] In

48 NiSource,Inc. 2020 10-K, at 114.

addition, NiSource incurred impairment charges associated with the Massachusetts assets in 2019 and 2020. The 2019 impairment charges were incurred because the fair value of the Massachusetts assets was determined to be less than the book value[49] while NiSource incurred an impairment charge in 2020 due to a loss on the sale of the Massachusetts assets to Eversource Energy which closed on October 9, 2020.[50] The inclusion of the impairment charges and the financial effect of the incident in 2018 would have resulted in NiSource deriving less than 60 percent of its regulated operating income from the natural gas distribution operations segment.

Q. Why is it appropriate to adjust the operating income data for NiSource to remove the financial effects of the incident associated with its Massachusetts assets?

A. The incident in 2018 and the impairment charges in 2019 and 2020 will likely only affect NiSource's financials in 2018, 2019 and 2020 because it sold the Massachusetts assets to Eversource Energy in October of 2020. Therefore, reported operating income from 2018 to 2020 for the company's natural gas distribution operations segment is not indicative of the segment's contributions to earnings in the future. As a result, the company will still derive a majority of its operating income from natural gas distributions operation and thus, investors would view the company as comparable to CenterPoint Energy Arkla.

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[49] *Id.*, at 71.
[50] *Id.*, at 60.

Q. How did you adjust the operating income data for NiSource?

A. As shown in Exhibit AEB-13, I obtained the total cost of the incident in 2018 and the total value of the impairment charges in 2019 and 2020 and added those values to the total operating income reported for the natural gas distribution operations segment for 2018 through 2020. Additionally, I also adjusted the corporate and other business segment for another impairment charge that NiSource realized in 2019 related to the Massachusetts assets. The adjustments resulted in NiSource deriving 63.49 percent to 68.83 percent of its operating income from the natural gas operations segment for the period of 2018 through 2020.

Q. Did you calculate NiSource's operating income by business segment prior to 2018?

A. Yes, I did. I calculated the percentage of operating income derived from regulated natural gas operations for NiSource from 2010 through 2017. As shown in Exhibit AEB-13, the only year where NiSource's percentage of operating income from natural gas operations was below 60 percent was 2017; however, the percentage in 2017 was 59.72 percent, only slightly less than 60 percent. In fact, the average for 2010 through 2017 for NiSource is 64.67 percent. Therefore, it is evident from my analysis of 2010 through 2017, and my adjustment to remove the one-time financial event from 2018 through 2020, that NiSource derives a majority its operating income from natural gas operations and is comparable to CenterPoint Energy Arkla. Thus, I have included NiSource in my proxy group

VI. COST OF EQUITY ESTIMATION

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

A. The ROE is the cost rate applied to the equity capital in the overall rate of return ("ROR"). The ROR 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. While the costs of debt and preferred stock 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 ROE determined?

A. The required ROE is estimated by using one or more analytical techniques that rely on market-based data to quantify investor expectations regarding required 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. 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 determine CenterPoint Energy Arkla's ROE?

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