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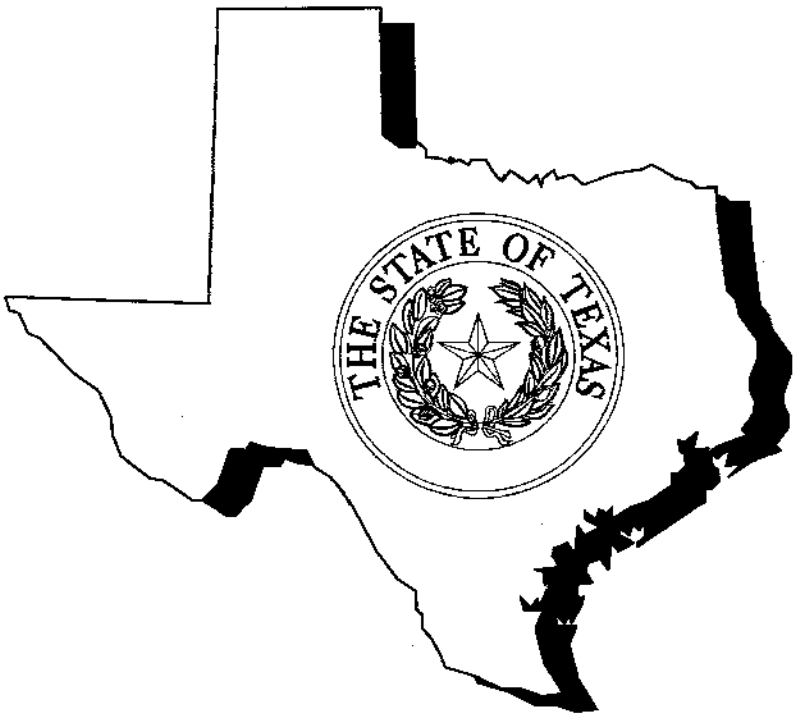
APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR AUTHORITY TO CHANGE RATES	**§ § §**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**



REVENUE REQUIREMENT PHASE

DIRECT TESTIMONY OF

MARK FILAROWICZ

RATE REGULATION DIVISION

PUBLIC UTILITY COMMISSION OF TEXAS

JUNE 26, 2024

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I. STATEMENT OF QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Mark Filarowicz. My business address is 1701 North Congress Avenue, Austin, Texas.

Q. Who is your employer and what is your position?

A. I am employed by the Public Utility Commission of Texas (Commission) as a Senior Financial and Accounting Analyst in the Rate Regulation Division.

Q. What are your principal responsibilities as a Senior Financial and Accounting Analyst for the Commission?

A. My responsibilities include testifying as an expert witness on accounting and financial matters in rate cases and other applications filed with the Commission and participating in the overall examination, review, and analysis of such applications. My responsibilities also include leading or participating in Commission rulemakings.

Q. Please describe your professional and educational background.

A. In December 2003, I graduated *summa cum laude* from the University of Texas at Austin with a Bachelor of Science degree in Actuarial Mathematics and a Bachelor of Arts degree in Philosophy.

I am licensed as a Certified Public Accountant (CPA) in the state of Texas. I have worked in various aspects of governmental and regulatory accounting for over ten years.

I am a Chartered Financial Analyst (CFA) charterholder and a member of the CFA Institute. The CFA charter is obtained after fulfillment of a relevant four-year work experience requirement and successful completion of the three-part CFA Examination (CFA Exam) over a minimum three-calendar-year period. The curriculum for the CFA Exam is extensive and comprehensive; it covers a core body of knowledge fundamental to the practice of investment management and includes the subjects of finance, economics,

statistics, accounting and financial reporting, equity, fixed income, alternative investments, derivatives, asset allocation, behavioral finance, and ethical and professional conduct.

From June 2009 to June 2015, I worked for the Railroad Commission of Texas in varying capacities as a legal assistant and researcher, as an accountant, and as a budget analyst. In July 2015, I began employment with the Commission as a regulatory accountant with duties similar to those in my current position. During my time at the Commission, I have reviewed numerous electric utilities' rate-change applications.

Q. Have you previously filed testimony in regulatory proceedings before the Commission?

A. Yes. Attachment MF-10 details the dockets in which I have filed testimony on behalf of the public interest before the Commission. I have also filed memoranda and otherwise participated in myriad other dockets and projects before the Commission.

II. PURPOSE AND SCOPE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. The first purpose of my testimony is to present Staff's financial recommendations concerning a fair return on equity (ROE) and overall rate of return on invested capital regarding CenterPoint Energy Houston Electric, LLC's (CEHE) request to change its rates in this docket based on a test year comprising the 12-month period ending December 31, 2023 (test year). CEHE's most recent base-rate case was Docket No. 49421,[1] based on a test year ending December 31, 2018. My recommendation reflects my calculation of an estimated cost of equity for CEHE; my analysis of CEHE's requested cost of debt; and my recommendation on an appropriate regulatory capital structure to use in calculating

[1] *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates,* Docket No. 49421, Order (Mar. 9, 2020).

CEHE's authorized rate of return. In the course of my testimony, I describe the bases and analytical techniques used in developing recommendations for an electric utility's estimated cost of equity. Then, I convert the cost of equity, cost of debt, and capital structure into the rate of return that I recommend the Commission authorize CEHE to have the opportunity to earn on its invested capital.

The second purpose of my testimony is to provide Staff's recommendation regarding necessary financial protections (commonly called "ring-fencing" provisions) to ensure that CEHE is protected from adverse financial impacts from its parent and sister companies and able to provide service at just and reasonable rates.

Q. What issues identified in the Preliminary Order does your testimony address?

A. The recommendations contained in my testimony pertain to the following issues from the Commission's Preliminary Order filed in this docket on April 11, 2024:[2]

> 7. What is the appropriate debt-to-equity capital structure for CenterPoint Houston [CEHE]?
>
> a. What is the appropriate overall rate of return, return on equity, and cost of debt for CenterPoint Houston?
>
> b. When answering this issue, please address how the factors specified in PURA § 36.052 and 16 TAC § 25.231(c)(1) should affect CenterPoint Houston's rate of return. [and]
>
> 8. Are any protections, including financial protections, appropriate to protect CenterPoint Houston's financial integrity and ability to provide reliable service at just and reasonable rates?[3]

Q. What is the scope of your review?

A. My review encompasses analysis of the issues surrounding rate of return and other financial aspects of the *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates* (the Application) as filed on March 6, 2024; CEHE's required

[2] *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 56211, Preliminary Order (Apr. 11, 2024).

[3] *Id.* at 5 of 16.

45-day update and various errata; and its responses to parties' requests for information (RFIs) throughout the discovery phase of this proceeding.

Q. What are the bases of your recommendations?

A. The bases of my recommendations are my review and evaluation of CEHE's testimony, workpapers, supporting documentation, and responses to RFIs.

Q. What other documents and data did you review in arriving at the conclusions and recommendations contained in your testimony?

A. In preparing my testimony for this proceeding, I also considered and analyzed data from financial resources such as Standard and Poor's (S&P), Value Line Investment Survey (Value Line), Zacks Investment Service (Zacks), Yahoo! Finance, and S&P Global Market Intelligence (S&P Global) (formerly SNL Financial).

Q. What standards are you applying in the determination of the reasonableness of CEHE's financial requests and overall requested rate of return?

A. I am applying standards set forth in the Public Utility Regulatory Act, Texas Utilities Code Annotated (PURA) § 36.051, which states:

> In establishing an electric utility's rates, the regulatory authority shall establish the utility's overall revenues at an amount that will permit the utility a reasonable opportunity to earn a reasonable return on the utility's invested capital used and useful in providing service to the public in excess of the utility's reasonable and necessary operating expenses.[4]

I am also applying 16 Texas Administrative Code (TAC) § 25.231, otherwise known as the Commission's cost-of-service rule, which states in part:

> (a) **Components of cost of service**. Except as provided in subsection (c)(2) of this section, relating to invested capital; rate base, and §23.23(b) of this title (relating to Rate Design), rates are to be based upon an electric utility's cost of rendering service to the public during a historical test year, adjusted for known and measurable changes. The two components of cost of service are allowable expenses and return on invested capital.

[4] Public Utility Regulatory Act, Tex. Util. Code Ann. § 36.051 (PURA).

> (b) **Allowable expenses**. Only those expenses which are reasonable and necessary to provide service to the public shall be included in allowable expenses. In computing an electric utility's allowable expenses, only the electric utility's historical test year expenses as adjusted for known and measurable changes will be considered, except as provided for in any section of these rules dealing with fuel expenses.
>
> (c) **Return on invested capital**. The return on invested capital is the rate of return times invested capital.
>
> (2) **Invested capital; rate base**. The rate of return is applied to the rate base. The rate base, sometimes referred to as invested capital, includes as a major component the original cost of plant, property, and equipment, less accumulated depreciation, used and useful in rendering service to the public.[5]

Q. Under what provisions of the PURA are you making your recommendation regarding financial protections?

A. PURA §§ 11.002 (Purpose and Findings) and 14.001 (Power to Regulate and Supervise) provide the bases for my recommendation regarding financial protections in this proceeding. PURA § 11.002 provides in subsections (a) and (b):

> (a) This title is enacted to protect the public interest inherent in the rates and services of public utilities. The purpose of this title is to establish a comprehensive and adequate regulatory system for public utilities to assure rates, operations, and services that are just and reasonable to the consumers and to the utilities.
>
> (b) Public utilities traditionally are by definition monopolies in the areas they serve. As a result, the normal forces of competition that regulate prices in a free enterprise society do not operate. Public agencies regulate utility rates, operations, and services as a substitute for competition.[6]

PURA § 14.001 states:

> The commission has the general power to *regulate and supervise* [emphasis added] the business of each public utility within its jurisdiction and to do anything specifically designated or implied by

[5] 16 Texas Administrative Code § 25.231 (TAC).

[6] PURA § 11.002.

this title that is necessary and convenient to the exercise of that power and jurisdiction.[7]

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Commission Staff, whose duty it is to represent the public interest in such proceedings.

III. BACKGROUND

Q. Please briefly describe CEHE.

A. CEHE is an electric utility that provides transmission and distribution services (i.e., it is a transmission-distribution utility or TDU) in the Electric Reliability Council of Texas (ERCOT) power region. CEHE serves customers in Houston, where it is headquartered, and surrounding cities.[8] CEHE is an indirect, wholly owned subsidiary of parent company CenterPoint Energy, Inc.[9]

IV. SUMMARY OF RECOMMENDATION ON RATE OF RETURN

Q. Please summarize your recommendations in this docket with respect to the rate of return on invested capital.

A. My conclusions and recommendations regarding rate of return on invested capital in this docket are as follows:

- The cost of equity for CEHE is in the range of 9.51% to 10.23%, as calculated using discounted cash flow (DCF) analyses and equity risk-premium models. The point estimate for my recommended return on equity (ROE) for CEHE is **9.75%**. My recommended point estimate—which lies within the range of the results of my single-stage DCF analysis, multistage DCF analysis, and equity risk-premium model—incorporates considerations for CEHE's business holistically and CEHE's operations, finances, and risk as a TDU.

[7] PURA § 14.001.

[8] Application, Direct Testimony of Lynnae Wilson at page 3 of 31 (Bates page 49) (Wilson Direct).

[9] *Id.*

- CEHE's requested cost of debt of 4.29% is its actual cost of debt from the test year adjusted for the net amortization of gains and losses. I recommend the Commission approve the requested **4.29%** cost of debt for CEHE.

- CEHE's requested capital structure for rate-setting purposes in its Application was its actual capital structure for the test year and consisted of 55.10% long-term debt and 44.90% common equity. For many reasons explained in detail below, I recommend that the Commission adopt a regulatory capital structure consisting of **57.5% long-term debt and 42.5% common equity**, which is a continuation of the regulatory capital structure that is currently authorized for CEHE (and other TDUs as well).

- The weighted-average cost of capital and overall rate of return that I recommend for CEHE is **6.61%**. Attachment MF-1 presents the calculation of this value from the recommended capital structure and the component costs of capital.

V. COST OF EQUITY

A. PRINCIPLES UNDERLYING THE COST OF EQUITY

Q. Please provide your understanding of the legal guidelines for the determination of the cost of equity.

A. The general framework for evaluating the cost of equity for regulated utilities is based on two decisions of the U.S. Supreme Court. In the decision for *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia* (*Bluefield*),[10] the Court stated:

> The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.[11]

This decision established financial integrity and capital attraction as standards to be met in setting the rate of return. In the decision for *Federal Power Commission v. Hope Natural Gas Co.* (*Hope*),[12] the Court stated:

[10] *Bluefield Water Works & Imp. Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679 (1923).

[11] *Id.* at 693.

[12] *Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591 (1944).

> . . . [T]he return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[13]

This decision reinforced the standards of financial integrity and capital attraction, and it further established the standard of setting a return on equity that is commensurate with the risks faced by the equity investor. From a financial perspective, investors in a utility must be given the opportunity to recover their reasonable capital costs, including a reasonable return on equity.

Q. Did these court decisions address the specific methods by which the return on equity should be determined?

A. No. Although these court decisions were helpful in establishing a general framework for evaluation, they did not specify particular methods to achieve this objective. Consequently, analysts use various techniques in determining the cost of equity. These techniques continue to evolve as new financial theories are advanced and the understanding of capital markets improves.

Q. What ultimately determines required returns on equity?

A. Ultimately, capital markets determine the required return on equity for an investor-owned electric utility or any publicly traded company. Through the interaction of the buyers and sellers of a company's common stock, the company's equity cost, i.e., the required return on equity, is established. Given the market price for a share of common stock, a financial analyst desiring to measure the cost of equity must accurately assess the sum of all investor expectations for the company in question, for a group of comparable companies, or for both. Data generated by stock exchanges and the opinions of investment advisors are important considerations in making these assessments.

[13] *Id.* at 603.

Q. Is variation common among analysts in their estimates of the cost of equity?

A. Yes. Estimating the cost of equity involves subjective opinion at various stages of the analysis, and there is no single infallible approach that is appropriate in all circumstances. The opinions of experts can differ widely on many factors relevant to the cost of equity, such as basic assumptions about risk, economic conditions, and investor expectations. Variations in the chosen approaches, and even in the application of the same approach by different analysts, are commonplace and can be expected. To rely solely on one approach for all companies under all market conditions and economic environments would be inappropriate. The results of various appropriate methods, however, should generally be close to each other or their estimates should have overlapping ranges.

Q. Is variation common among models and the inputs used in those models?

A. Yes. Certain financial models have a long tenure with regard to utility financial analysis. It is common, however, for rate-of-return witnesses to employ different specific models, and it is even more common for inputs used in the models to vary between rate-of-return witnesses.

As a general matter, an input to a financial model should be judged on how it functions within the operations of the overall model, and not on its own outside the context of the model in which it is used. A model, moreover, should be judged by its holistic mechanics and the reasonableness of the results that it yields, not by any individual inputs.

Q. What models and techniques did you use to estimate the cost of equity for CEHE?

A. I used three approaches to estimate a cost of equity for CEHE. Two are discounted cash flow (DCF) approaches and one is a risk-premium approach.

The DCF methodology determines the price of a stock by estimating the value of future cash flows that the stock will produce for its owners. I discuss this method and its application in the analysis in Part C of this section of my testimony.

The conventional risk-premium approach that I use in my testimony relies on the historical relationship between two indices. A value for one of the indices, which is unknown in a particular period, is forecasted using its historical relationship to the other index, where the value for that same period is known. I discuss this approach in Part D of this section of my testimony.

The use of DCF analyses and risk-premium methodologies is well-established at this Commission, which has relied upon these methods in rate-case decisions for at least the last three decades.

B. COMPARABLE COMPANY ANALYSIS

Q. What is the purpose of a comparable company analysis?

A. The objective of a comparable company analysis is to estimate the cost of equity for a target company by estimating the costs of equity for companies with similar risk characteristics. Cash flows are subject to the influence of many factors, not all of which may be identified. The use of multiple proxy companies in determining the target company's cost of equity mitigates the influence of unknown factors by spreading them over the several companies in the comparable company analysis.

Q. Please describe the group of comparable companies you used to perform your cost-of-equity analysis.

A. I selected comparable companies for my analysis by starting with all the electric utility companies on which Value Line reports in its *Ratings and Reports* publication and selecting those companies as much like CEHE as possible without unreasonably restricting their number. The more companies there are in the analysis, the more the effects of an unexpected anomaly in one will be diluted by the rest and, therefore, the better the comparison to the target company will be. On the other hand, choosing less

stringent screening criteria to increase the number of comparable companies might result in the selection of companies with characteristics unlike those of CEHE.

Q. On what basis did you select your group of comparable companies?

A. In selecting a group of companies that I think are appropriately comparable to CEHE, I selected those electric utilities that:

- are followed by Value Line;
- have a current capital structure with a long-term debt proportion between 40% and 60%;
- have a positive (greater than 0%) long-term forecast of earnings growth rate from Value Line and, if Zacks or Yahoo! Finance provides an estimate for long-term earnings growth rate, have a positive (greater than 0%) long-term forecast of earnings growth rate from Zacks or Yahoo! Finance;
- are covered by S&P; have an investment grade credit rating; and, if the outlook is negative or if the utility has a negative credit watch, would not lose an investment-grade rating if downgraded one notch in credit rating;
- have not had recent and do not have planned or expected potential merger activities or other major capital expansion or contraction, and have not had any major, recent extraordinary events that would affect overall financial condition;
- have not had recent dividend omissions or cuts; and
- are not otherwise considered inappropriate for being a proxy to target the cost of equity for CEHE.

Q. Please list the companies that met the screening criteria.

A. Listed below are the companies that met the screening criteria:

Ticker Symbol	Company
ALE	ALLETE, Inc.
LNT	Alliant Energy Corporation
AEE	Ameren Corporation
AEP	American Electric Power Company Inc.
AVA	Avista Corporation
BKH	Black Hills Corporation
ED	Consolidated Edison, Inc.
DUK	Duke Energy Corporation
EVRG	Evergy, Inc.
ES	Eversource Energy
FTS	Fortis Inc.
IDA	IDACORP, Inc.
NEE	NextEra Energy, Inc.
NWE	NorthWestern Energy Group, Inc.
PNW	Pinnacle West Capital Corporation
POR	Portland General Electric Company
PEG	Public Service Enterprise Group Inc.
SRE	Sempra Energy
WEC	WEC Energy Group, Inc.

Q. Are these the same companies that constitute the comparable group that CEHE's witness Ann E. Bulkley used for her analysis?

A. No. The group of companies that I believe are comparable to CEHE is not the same as Ms. Bulkley's group of comparable companies, although there is some overlap.[14]

[14] Application, Direct Testimony of Ann E. Bulkley at page 33 of 78 (Bates page 1888) (Bulkley Direct).

Q. Would you expect that the composition of the comparable group would be the same for every rate-of-return witness in a utility rate case?

A. No. Differences in selection criteria will lead to different compositions of comparable groups. It is common in utility rate cases for the compositions of rate-of-return witnesses' comparable groups to differ.

C. DISCOUNTED CASH FLOW (DCF) ANALYSIS

Q. Please explain the DCF methodology.

A. The DCF methodology derives from the Gordon dividend constant-growth model. In its original form, the Gordon dividend growth model is a tool used for determining the value of a share of common stock. The theory underlying the model holds that the price of a share is equal to the present value of all future dividends. It is expressed mathematically as follows:

$$P_o = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \ldots + \frac{D_n}{(1+k)^n}$$

where: P_o = current share price;

D_i = expected dividend in year i;

k = investors' required rate of return

n = year of expected share price realization

When the dividends are assumed to grow at a constant rate—*g*—the DCF is of the constant-growth variety and all future dividends can be expressed in terms of the current dividend, D_o, by the following equation:

$$P_o = \frac{D_o(1+g)^1}{(1+k)^1} + \frac{D_o(1+g)^2}{(1+k)^2} + \ldots + \frac{D_o(1+g)^n}{(1+k)^n}$$

Finally, if the discount rate or required rate of return—*k*—is assumed to be constant from year to year, and *k* is greater than *g*, then the equation above reduces to the following form as *n* approaches infinity:

$$P_o = \frac{D_o(1 + g)}{(k - g)}$$

For purposes of estimating the cost of common equity, the equation above may be rearranged to solve for the investor's required rate of return:

$$k = \frac{D_o(1 + g)}{P_o} + g$$

or more simply:

$$k = \frac{D_1}{P_o} + g$$

The constant-growth DCF model recognizes that the return to the stockholder consists of two parts: dividend yield and growth. Equity investors expect to receive a portion of their total required return in the form of current dividends and the remainder through price appreciation.

Q. Are there variations of the constant-growth DCF model?

A. Yes. For conditions in which significantly different growth rates are expected over different periods of time, analysts often employ a multistage version of the DCF model. For example, the expected near-term growth of a given company may be significantly higher or lower than the expected sustainable growth rate. In these situations, it is

appropriate to apply a multistage DCF model that incorporates the various growth rates expected over time.

Under the multistage DCF, the equation for the constant-growth DCF is simply expanded to incorporate two or more growth-rate periods, with the assumption that a permanent constant growth rate can be estimated for some point in the future:

$$P_o = \frac{D_0(1+g_1)}{(1+k)^1} + \frac{D_1(1+g_2)}{(1+k)^2} + \ldots + \frac{D_{(n-1)}(1+g_n)}{(1+k)^n}$$

where the variables are the same as in the equation in the previous question-and-answer, but there are more subscripts to indicate the different time periods to which the variables apply—e.g., g_1 represents the growth rate for the first period; D_2, the dividend rate for the second period; g_2 the growth rate for the second period; and so on. The "n" subscript represents however many periods are to be included (up to infinity).

Q. What stock prices did you use for your DCF analyses?

A. As shown on Attachment MF-3, I used stock prices that are an average of weekly prices over a recent 12-week period. The 12-week period is both long enough to smooth out stock market fluctuations and provide an assessment of long-term expectations, and short enough to capture the impact of current information on market perceptions of risk, earnings growth, and dividend growth. Twelve weeks is a reasonable period of time to balance capturing the benefits of both these goals.

Q. What versions of the DCF model did you use in your analysis?

A. I used both a single-stage version and a multistage version of the DCF model. In the single-stage version, the stock's dividend growth is based on analysts' estimates of the utility's earnings growth over the next five years. In the multistage version of the DCF model, I used a two-stage growth approach. The first stage in this version covers five

years and uses the same analysts' estimates that I used in the single-stage version. The second stage, which covers years six through 150, is based on a 5.09% projected long-term growth in Gross Domestic Product (GDP), as discussed below.

Q. Why did you use two versions of the DCF model?

A. I used two versions of the DCF model because each model is reasonable in its own right and therefore likely to be used by investors. By blending the two, I more closely approximate the expectations of investors on average than if I were to use either one alone.

Q. What are the key assumptions underlying the DCF model?

A. The model rests on three principal assumptions. First, investors evaluate the expected risk and expected cash flows of all securities in the capital markets and, through the trading process, adjust the price of each security so that the expected return is commensurate with the expected risk. Second, investors discount the expected cash flows at the same rate—*k*—in every future period. Third, dividends, rather than earnings *per se*, constitute the source of value for a share of stock. Absent a sale of the stock, dividends are the only cash flows received by investors. The earnings of the company that issued the stock, however, are critical because they make it possible to pay dividends, and the level of earnings ultimately determines the level of growth in the company and the growth in dividends over time.

Q. Please describe the growth component of the DCF model.

A. Given the relationship between sustainable earnings growth and dividend growth, the growth rate commonly used in DCF analyses for any individual company in the proxy group is the average earnings growth estimate(s) for that company. Estimates of earnings growth are appropriate because the issue is not the rate at which the firm will actually grow (which is primarily a function of economic conditions, management ability,

regulatory environment, etc.), but rather the growth expectation that investors have embodied in the current price of the stock.

Q. Is it possible to know what expected earnings growth rate is actually embodied in the price of a stock?

A. No. There is no objective way to precisely determine the growth rate expected by a consensus of investors. No matter what technique is used, the best that can be said of any estimate developed by a rate-of-return analyst is that it is a reasonable proxy for investors' consensus expectations about growth.

Q. What estimates for the growth expectations of investors did you use in your DCF analyses?

A. I relied upon Value Line, Zacks, and Yahoo! Finance for the earnings growth rates in the single-stage DCF model and the first stage of the multistage DCF model. I used Value Line because it is one of the nation's largest independent investment research services.[15] I included Zacks because it compiles consensus earnings forecasts from groups of professional security analysts.[16] I also included Yahoo! Finance for similar reasons to the first two.[17]

For the second stage of the multistage DCF model, I used an expected long-run nominal growth rate of 5.09%, consisting of the 3.09% per year average real growth-rate of GDP for the period starting at the end of the first quarter of 1947 (the earliest quarter for which the U.S. Bureau of Economic Analysis provides real GDP data) and running through the end of the first quarter of 2024 (the most recent quarter at the time of this testimony),[18] and the 2.00% rate of long-run inflation forecast by the Board of Governors

[15] Value Line, www.valueline.com.

[16] Zacks, www.zacks.com.

[17] Yahoo! Finance, www.finance.yahoo.com.

[18] U.S. Bureau of Economic Analysis, Real Gross Domestic Product (GDPC1), retrieved from FRED, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/GDPC1 (accessed May 13, 2024).

of the Federal Reserve System in its most recent estimate.[19] These are widely disseminated data that investors generally consider credible.

Q. Why do you use a consensus forecast from professional security analysts rather than historical data as a proxy for investor expectations of growth?

A. There are several reasons why I use professional security analysts' forecasts instead of historical data. First, the cost of equity is a forward-looking concept, and security analysts use extensive and sophisticated financial models to forecast growth rates. To the extent that historical growth rates for dividends, earnings, and book values are relevant to future growth, they are already incorporated into these forecasts. In addition, other pertinent information—such as general economic projections and the impact of new legislation, regulatory actions, and technological advancements—is factored into the projections made by investment advisory firms, providing a more comprehensive estimate and reflecting a broader base of relevant information.

Second, it is not plausible to assume that the large institutional investors who dominate stock trading use valuation techniques based on the assumption that historical trends in earnings and dividends will simply be repeated. These institutions pay substantial amounts of money to investment services such as Value Line for information that includes earnings forecasts. The substantial payment suggests that these investors consider the information valuable and actually use it when making investment decisions.

Third, a long history of empirical academic research by authorities such as Dr. Myron Gordon, the originator of the Gordon dividend growth model described earlier, has shown that consensus forecasts from professional security analysts do a better job of predicting the valuation of common stocks than mechanically derived forecasts from historical data.

[19] Monetary Policy Report to the Congress, Board of Governors of the Federal Reserve System at 45 (Mar. 1, 2024).

Q. What are the results of your DCF analyses?

A. Attachment MF-4 shows recent stock price averages and forecasted dividends for companies in the comparable group; these data feed into the single-stage DCF and multistage DCF calculations in Attachment MF-5 and Attachment MF-6, respectively. Attachment MF-5 includes a summary of the results of my single-stage DCF analysis. Using the average of earnings growth rates projected by Value Line and, where applicable, by Yahoo! Finance and Zacks, the estimates for the unadjusted comparable companies yields an average cost of equity of 9.98 %. The multistage DCF yields a cost-of-equity estimate with an average of 9.51%, as shown on Attachment MF-6.

D. RISK-PREMIUM ESTIMATES OF THE COST OF EQUITY

Q. Please describe the general methodology of your risk-premium analysis.

A. Given that the cost of equity is not directly observable, estimates for it may be derived by examining bond yields, which are readily observable, and adding a premium to compensate for the additional risk assumed to exist in equity investments. Equity investments have traditionally been viewed as being riskier than debt investments because stockholder payments are not contractually defined and because debt holders generally have a senior claim on the assets of a firm if it declares bankruptcy. The yields on long-term bonds are typically used in risk-premium analyses because equity investments are usually thought of as long-term investments. The holding periods for these investments are assumed to be similar, and the inflation expectations built into long-term bond yields should also be applicable to equity investments.

Q. Are equity risk premiums stable over time, or do they vary with capital market conditions?

A. Several empirical studies have demonstrated that equity risk premiums vary over time as changes occur in the capital markets. In addition, it is reasonable to expect the equity risk

premium for a particular company to change as the specific risks facing a company change over time. With regard to the influence of capital market conditions, several studies have identified an inverse relationship between the level of interest rates and the size of equity risk premiums. One explanation for this phenomenon is the differential impact of inflation on debt and equity investments. Bond interest payments are fixed upon issuance, and there is no mechanism for adjusting returns for changes in inflation and purchasing power. Therefore, when inflationary fears rise, the perceived risk associated with bond investments increases, and interest rates rise. On the other hand, equity investors may be shielded somewhat from inflation by the company's ability to raise dividend payouts during inflationary periods. Because stocks may be viewed as a better hedge against inflation, the cost of equity will tend to rise less than the cost of debt. Consequently, the equity risk premium can be expected to fall as interest rates rise.

In addition to the influence of inflation, changes in investor risk preferences can significantly affect equity risk premiums. For example, if a major economic disruption or a recession were anticipated, a move to higher quality investments would likely occur. This would have the probable effect of decreasing the returns that investors require for investing in U.S. Treasury bonds and high-grade corporate bonds. If the returns on these securities were used to measure risk premiums, the observed equity risk premiums would likely be higher. Conversely, if the demand for higher quality investments were to fall, thereby pushing up the required returns, the observed equity risk premiums would likely be lower.

Q. Please describe the "conventional" risk-premium approach that you used in your estimate of cost of equity for CEHE.

A. I refer to the risk-premium approach I use as the "conventional" risk premium to distinguish it from the concept of risk premiums in general and to denote that it is the primary risk-premium method on which Staff has relied for many years. The conventional

risk premium is a risk premium that estimates the cost of equity for CEHE by comparing the costs of equity authorized for utilities across the United States to the yields of large-company corporate bonds that are rated Baa by Mergent Bond Data. The timeframe I have used for this purpose is 1980 through 2023. I did not use data from earlier than 1980 because of a sharp reduction in the money supply at that time.

Q. How did you use the relationship between the authorized costs of equity and the bond yields to estimate a proxy cost of equity?

A. I quantified the relationship by subtracting the bond yields from the authorized costs of equity to determine a risk premium for the riskier equity.

Q. Did you test the data for correlation as you described earlier in the introduction to Part D?

A. Yes. I performed a regression analysis to analyze the relationship between the risk premium and the bond yields in the corresponding period. The regression analysis shows, with high confidence, that there is a trend in the relationship. As expected, it is an inverse trend, in which the risk premiums increase as bond yields decrease. On average, during 1980 through 2023, risk premiums increased 0.4443% for every 1.00% that bond yields decreased.

Q. Did you incorporate that relationship in your risk-premium estimate?

A. Yes. The calculation of the adjustment to the risk premium that the regression analysis indicates is shown on Page 2 of 2 of Attachment MF-7.

Q. What current interest rate data do you use in your risk-premium estimate?

A. I use bond data from a recent three-month period as the starting point in the calculation of the risk premium on Page 2 of Attachment MF-7. The three-month period covers the first quarter of calendar year 2024. The average Baa corporate bond yield for the first quarter of 2024 is 5.73%.

Q. What are the results of your risk-premium analysis?

A. As shown on Page 2 of 2 of Attachment MF-7, the conventional risk-premium analysis implies a cost of equity of 10.23%.

E. SUMMARY OF COST-OF-EQUITY ANALYSES

Q. Please summarize the results of your cost-of-equity analyses.

A. The results obtained from the analyses appear on Attachment MF-8 and in the following table:

Methodology	Point Estimate	Range
Single-stage DCF Analyses	9.98%	8.33% - 11.78%
Multistage DCF Analysis	9.51%	8.30% - 11.06%
Conventional Risk Premium	10.23%	N/A
Average of DCF Analyses	9.75%	N/A
Final ROE Estimate	***9.75%***	

Q. What is your recommendation for the return on equity for CEHE?

A. Considering the DCF analyses of companies that are comparable to CEHE and the conventional risk-premium analysis previously described in my testimony, I recommend an ROE for CEHE of 9.75%.

In determining my recommended point estimate for CEHE, I considered the results of the single-stage DCF analysis, the multistage DCF analysis, and the equity risk-premium analysis. The analyses produced point-estimate results that ranged from 9.51% to 10.23%. The average result of the two DCF analyses was 9.75%. The results of all of these analyses convince me that the appropriate cost of equity for CEHE remains lower than the range that Ms. Bulkley recommends.

My point estimate of 9.75% lies squarely in the lower to middle section of the range of 9.51% to 10.23% as calculated by my DCF and risk-premium analyses and is the

average of the single stage and multistage DCF analyses. After assessing additional factors such as current capital market conditions and recent Staff rate-of-return testimonies and Commission final orders for vertically integrated utilities, TDUs, and transmission-only utilities, as well as recent national average authorized ROEs for electric utilities, I concluded that the best estimate for a cost of equity for CEHE lies in the lower section of this range. Accordingly, I selected my point estimate for CEHE's return on equity of 9.75% because it lies squarely in the lower to middle section of the range, because it aligns itself with recent Staff recommendations and Commission-authorized ROEs, and because it promotes the public interest by balancing the concerns of ratepayers while affording CEHE a reasonable opportunity to earn a reasonable return on its invested capital.

Based on my analyses and the foregoing considerations, my overall recommendation of 9.75% is a reasonable estimate of the ROE for CEHE and is fully consistent with the requirements of *Hope* and *Bluefield* that I referenced earlier in my testimony.

Q. What was the nationwide average authorized ROE for electric utilities in 2023? What about the first quarter of 2024?

A. In 2023, the nationwide average authorized ROE for electric utilities was 9.60%, up slightly from 9.54% in 2022 (see data from S&P Global in Attachment MF-9). For the first quarter of 2024, the average authorized ROE in America was 9.66% (again see Attachment MF-9). These facts further convince me that my recommended point estimate is much more appropriate for CEHE than its requested ROE.

VI. COST OF DEBT

Q. What cost of debt did CEHE request in its Application?

A. It its Application (and 45-day update and various errata), CEHE requested a cost of debt of 4.29%, which was its actual, embedded cost of debt as of December 31, 2023, the end of the test year.[20]

Q. Do you believe that the cost of debt that CEHE requests in its Application is appropriate for rate-setting purposes?

A. Yes. The requested cost of debt is CEHE's actual cost of long-term debt for the test year adjusted for the net amortization of gains and losses, and I believe its use is appropriate for setting rates and calculating CEHE's authorized rate of return. I recommend the Commission approve CEHE's requested cost of long-term debt of 4.29% for rate-setting purposes.

VII. CAPITAL STRUCTURE

Q. What capital structure did CEHE propose in its Application?

A. It its Application, CEHE requested a capital structure consisting of 55.10% long-term debt and 44.90% common equity for the purpose of establishing rates.[21]

Q. What is CEHE's current Commission-authorized capital structure?

A. The final order in Docket No. 49421, CEHE's most recent comprehensive base-rate proceeding, authorizes for CEHE a regulatory capital structure consisting of 57.5% long-term debt and 42.5% equity for the purposes of setting rates.[22]

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[20] Application, Schedule II-C-2.4a at page 1 of 1 (Bates page 3145) and Direct Testimony of Jacqueline M. Richert at pages 26 of 36 - 27 of 36 (Bates pages 2260-2261) (Richert Direct).

[21] Application, Schedule II-C-2.1 at page 1 of 1 (Bates page 3139); Bulkley Direct at page 61 of 78 *et seq.* (Bates page 1916 *et seq.*); and Richert Direct at page 16 of 36 *et seq.* (Bates page 2250 *et seq.*).

[22] Docket No. 49421, Order at Finding of Fact Nos. 60-61.

Q. What is your recommendation regarding the regulatory capital structure the Commission should use in determining a rate of return and setting rates for CEHE in this docket?

A. I recommend that the Commission continue to authorize for CEHE a regulatory capital structure consisting of 57.5% long-term debt and 42.5% common equity.

Q. Why do you recommend this regulatory capital structure for CEHE in this docket?

A. My recommended capital structure consisting of 57.5% long-term debt and 42.5% common equity is CEHE's currently authorized regulatory capital structure that the Commission ordered in Docket No. 49421 for the purposes of setting rates, and there are a number of reasons why I believe that this current regulatory capital structure remains appropriate for CEHE. Many other TDUs in Texas currently have the same regulatory capital structure that consists of 57.5% long-term debt and 42.5% equity, and, in terms of precedent, the Commission recently ordered this capital structure for Oncor Electric Delivery Company LLC (Oncor), another TDU, in Docket No. 53601, a fully litigated comprehensive base-rate proceeding.[23] As also explained below, many of the same factors and circumstances that surrounded CEHE's regulatory capital structure from Docket No. 49421 persist in the current Application, and many of the same factors that have motivated and undergirded the history of authorized regulatory capital structures for TDUs in Texas remain applicable or are even more significant today (such as the number of interim rate updates available to TDUs).

[23] *Application of Oncor Electric Delivery Company LLC for Authority to Change Rates*, Docket No. 53601, Order on Rehearing at Finding of Fact Nos. 188-190 (Jun. 30, 2023).

Q. What TDUs currently have Commission-authorized regulatory capital structures consisting of 57.5% long-term debt and 42.5% common equity?

A. As previously noted, CEHE itself currently has a Commission-authorized regulatory capital structure consisting of 57.5% long-term debt and 42.5% common equity.[24] In Docket No. 49494, the Commission ordered this same regulatory capital structure for AEP Texas Inc. (AEP), another TDU.[25] In recent Docket No. 53601, a fully litigated comprehensive base-rate proceeding for Oncor—another large and urban TDU that made similar arguments as CEHE about its requested capital structure—the Commission authorized a regulatory capital structure consisting of 57.5% long-term debt and 42.5% equity.[26] It may be more accurate to think of it as the Commission deciding that this continued to be the appropriate regulatory capital structure, for it has been Oncor's Commission-authorized capital structure since Docket No. 46957.[27] The recent precedent from Docket No. 53601 is important because it highlights that the Commission believes that a capital structure consisting of 57.5% long-term debt and 42.5% common equity remains an appropriate regulatory capital structure for TDUs today given their business and operations risks, despite CEHE's arguments to the contrary. My recommendation in this docket accords with this recent and relevant Commission precedent.

Q. Please provide a brief history of the use of a Commission-authorized proxy regulatory capital structure for TDUs in Texas in the last couple of decades.

A. Following the unbundling of the Texas electric market, the Commission's ruling in Docket No. 22344 found that a uniform capital structure consisting of 60% long-term debt and 40% common equity was appropriate for ratemaking purposes for all TDUs operating in

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[24] Docket No. 49421, Order at Finding of Fact Nos. 60-61.

[25] *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 49494, Order at Finding of Fact Nos. 91-92 (Apr. 6, 2020).

[26] Docket No. 53601, Order on Rehearing at Finding of Fact Nos. 188-190.

[27] *Application of Oncor Electric Delivery Company LLC for Authority to Change Rates*, Docket No. 46957, Order at Finding of Fact No. 32 (Oct. 13, 2017).

Texas.[28] The Commission concluded that the TDUs operating in Texas "would face substantially lower risks than those currently faced by the integrated utilities."[29] It also concluded that "a 60% debt level will not necessarily result in a downgrading of a TDU's credit rating."[30] I believe that the Commission's conclusions in Docket No. 22344 remain relevant. I also believe that a 57.5% long-term debt and 42.5% common equity capital structure remains in line with these conclusions.

Q. Why do you believe that the Commission's conclusions in Docket No. 22344 remain relevant today?

A. I believe that the Commission's conclusions in Docket No. 22344 remain relevant for two reasons. First, there are several mechanisms by which CEHE can timely recover transmission and distribution investments: (1) an interim transmission cost of service (Interim TCOS) proceeding, (2) a distribution cost recovery factor (DCRF) proceeding, (3) a distribution service provider transmission cost recovery factor (TCRF) proceeding, (4) a temporary emergency electric energy facilities (TEEEF) proceeding, (5) a system resiliency plan (SRP) proceeding, and (6) the use of securitization financing for recovery of system restoration costs. The Interim TCOS mechanism allows electric transmission service providers to update their wholesale transmission rates up to twice per year to allow for timely recovery of the capital-related costs of new transmission investments. The DCRF mechanism provides for an expedited ratemaking process for a utility request—recently updated to allow up to twice per year—for approval to adjust its rates to incorporate changes in the utility's distribution invested capital since its most recent base rate case. The TCRF mechanism allows a distribution service provider to update its charges twice per year to pass through wholesale transmission cost charges billed by

[28] *Generic Issues Associated with Applications for Approval of Unbundled Cost of Service Rate Pursuant to PURA § 39.201 and Public Utility Commission Substantive Rule § 25.344,* Order No. 42, Docket No. 22344 (Dec. 22, 2000).

[29] *Id.* at page 7 of 12.

[30] *Id.*

transmission service providers. The TEEEF mechanism allows a utility to update its costs for leasing or operating temporary emergency facilities. The SRP mechanism allows a utility to request recovery of costs associated with improved resiliency and provides options to do so in numerous different types of proceedings. The securitization legislation for recovery of system restoration costs allows utilities that suffer hurricane and other storm damage to timely recover those costs through the use of securitization financing.[31] The fact is, many more interim cost recovery mechanisms exist for TDUs today than were present in Docket No. 22344. This leads to enhanced, timelier recovery of costs and reduced business and operations risk.

Second, in the Commission's *Report to the 85th Texas Legislature on Alternative Ratemaking Mechanisms* (filed in Project Number 46046),[32] the Commission stated to the Texas Legislature that it believes: (1) the ratemaking mechanisms for TDUs that operate within the Electric Reliability Council of Texas (ERCOT) are not in need of major revisions, (2) the existing streamlined methods of recovery are generally achieving their intended purposes, and (3) the existing regulatory paradigm, in which periodic rate proceedings are used in combination with already available streamlined recovery mechanisms, is an efficient and effective way to balance the interests of all stakeholders and ensure that electric rates are just and reasonable. I believe all these factors reflect the low-risk environment for TDUs operating in ERCOT, and arguably support the continued reasonableness of a regulatory capital structure consisting of 60% long-term debt and 40% common equity or something close to it.

[31] Public Utility Regulatory Act, Texas Utilities Code §§ 36.401-36.457.

[32] *Report on Alternative Ratemaking Mechanisms,* Project No. 46046, Commission's Report to the 85th Texas Legislature on Alternative Ratemaking Mechanisms at 4 (Jan. 12, 2017).

Q. To be clear, you are not recommending a capital structure consisting of 60% long-term debt and 40% common equity in proceeding, right?

A. That is correct. While I am not recommending a "60/40" capital structure, it is my position that the same factors and circumstances that motivated the Commission to use a proxy "60/40" capital structure for TDUs for so many years persist to this day (and sometimes in greater effect or degree, such as the number of interim cost recovery mechanisms), which makes me confident that my recommended capital structure—consisting of 57.5% long-term debt and 42.5% common equity and what is CEHE's currently authorized regulatory capital structure—remains appropriate.

Q. Please explain why your recommendation accords with the business, operating, and finance risk for a TDU.

A. I believe that my recommended regulatory capital structure for CEHE accords with its risk profile as a TDU in terms of business, operating, and finance risk. In addition to the cost-recovery and risk-mitigation mechanisms discussed above, it is important to note that historically the Commission has reflected differences in risk between TDUs and vertically integrated utilities with different authorized regulatory capital structures (in addition to differences reflected in authorized ROEs). While the Commission sometimes authorizes for vertically integrated electric utilities a regulatory capital structure that includes a higher proportion of equity capital, the Commission has a long history of authorizing TDUs appropriate regulatory capital structures for the purposes of setting rates that reflect TDUs' different risk profile.

Q. Is CEHE's requested capital structure its actual capital structure from the test year? Does it matter?

A. CEHE's requested capital is (or is close to) its actual capital structure as of the end of the test year. The Commission should not, however, give this any weight to this fact and

instead should look to its long history of using appropriate regulatory capital structures for TDUs that reflect business, operations, and finance risk.

Q. Has CEHE's actual capital structure been relatively steady over time? Again, does it matter?

A. CEHE's capital structure has been relatively steady over time, as much as any entity's can be. Capital structures will necessarily vary over time, and, at any given day, month, or quarter end, may differ (even if only slightly) from the day, month, or quarter before. Therefore, almost every entity's capital structure will vary over time.

Once again, though, I recommend that the Commission continue its practice of not looking to TDUs' actual capital structures, whatever they may be, and instead authorize a reasonable and appropriate regulatory capital structure for the purpose of setting rates. In Docket No. 49421, the Commission did not look to CEHE's then-current, actual operating capital structure when determining its authorized regulatory capital structure for the purposes of determining rate of return and setting rates, and I recommend that the Commission do the same in this docket.

Q. Should the Commission consider the actual capital structure of the holding companies in the proxy group when setting a regulatory capital structure for CEHE in this docket?

A. No. The Commission should not consider the capital structures of the companies in the proxy group, as CEHE suggests, when determining an appropriate regulatory capital structure for CEHE in this docket. As a preliminary matter, the proxy groups (both Ms. Bulkley's and my own) use data for companies that are, in general, holding companies that are parents of regulated electric utilities. For instance, while Southwestern Electric Power Company (SWEPCO) and AEP are regulated Texas electric utilities, Value Line follows (and hence our proxy groups use) American Electric Power Company Inc., their parent company. While Entergy Texas, Inc. (ETI) is a regulated Texas electric utility,

Value Line follows its parent Entergy, Inc. Similarly, while Oncor is a regulated Texas electric utility, Value Line follows its majority shareholder Sempra Energy. Finally and perhaps most relevantly, Value Line does not follow CEHE, the Texas regulated electric utility, but instead follows CEHE's parent CenterPoint Energy, Inc.

While the Commission has a long history of looking to proxy group data and analysis for determining appropriate ROEs for electric utilities, the Commission historically has not looked to the capital structures of the entities in the proxy group when determining appropriate authorized regulatory capital structures for electric utilities (whether TDUs or vertically integrated utilities or, for that matter, non-investor-owned utilities). CEHE's argument here should be disregarded.

Q. What is the actual capital structure of CenterPoint Energy, Inc.?

A. CEHE's parent, CenterPoint Energy, Inc., has an actual capital structure in 2023 consisting of 64.5% long-term debt and 35.5% common equity. If one accepts CEHE's assertion that the Commission should look to the proxy group, by the same logic (and perhaps more so) the Commission should look to CEHE's parent whose actual capital structure (with 64.5% long-term debt) would support my recommendation in this docket (or would even support the historic "60/40" capital structure for TDUs). Historically the Commission has not looked to a TDU's actual capital structure or to the actual capital structures of the holding companies in the proxy group, but instead it has determined reasonable and appropriate regulatory capital structures for TDUs for the purposes of setting rates. My recommendation on capital structure accords with the Commission's history of determining regulatory capital structures for TDUs.

Q. Please summarize your recommendation on capital structure in this docket.

A. I recommend that the Commission authorize a regulatory capital structure for CEHE consisting of 57.5% long-term debt and 42.5% common equity, which is CEHE's currently authorized regulatory capital structure and is the currently authorized capital

structure for other TDUs. In recent and precedential Docket No. 53601, the Commission ratified that a regulatory capital structure consisting of 57.5% long-term debt and 42.5% common equity is still appropriate for TDUs when it authorized that capital structure for Oncor, another large and urban TDU that made arguments similar to CEHE.[33] CEHE's risk profile convinces me, when coupled with the numerous cost recovery mechanisms available to TDUs, of the reasonableness and appropriateness of my recommended capital structure.

VIII. OVERALL RATE OF RETURN

Q. How did you calculate the overall cost of capital?

A. To calculate the recommended rate of return for CEHE, I employed the weighted-average-cost-of-capital methodology, the use of which involves three steps in a regulatory setting.

First, the analyst must identify the sources of capital and estimate the component cost of each source of capital in the target company's capital structure. Sources of capital generally consist of long-term debt, common equity, and, when applicable, preferred stock in the electric utility regulatory setting. The determination of cost for long-term debt is relatively straightforward because the costs of this capital source are embedded—i.e., they are set by contractual obligation and are therefore directly observable. The same is true for preferred stock. In contrast, the cost of equity is not directly observable and must be estimated using analytical models, as I have done earlier in Parts A through E of Section V of my testimony.

Second, the analyst must recommend an appropriate capital structure for regulatory purposes. For each source of capital identified, the analyst must recommend an appropriate weight. I do this in Section VII of my testimony.

Third, the cost of each capital source is weighted by its relative proportion in the recommended capital structure. The sum of these weighted component costs represents

[33] Docket No. 53601, Order on Rehearing at Finding of Fact Nos. 188-190.

the weighted-average cost of capital—i.e., the overall rate of return. For ratemaking purposes for an electric utility, this overall rate of return is multiplied by the utility's invested capital (the rate base) in order to calculate the return component of the cost of service.

Q. What overall rate of return are you proposing for CEHE in this proceeding?

A. As shown on Attachment MF-1, my recommended cost of equity and capital structure, when combined with CEHE's actual cost of debt from the test year, result in a weighted-average cost of capital of **6.61%**.

IX. FINANCIAL PROTECTIVE MEASURES (RING-FENCING)

Q. Please explain what is meant by the term "ring-fencing" in a regulatory context.

A. The phrase "ring-fencing" refers to the general concept of establishing various requirements or policies that effectively isolate and thereby insulate a regulated entity from the effects of a parent (or sister) organization's financial distress and, in a worst-case scenario, bankruptcy. A basic regulatory function is the maintenance of a utility's financial ability to deliver reliable service at reasonable rates, and ring-fencing provisions are a tool that the Commission can use and has used to carry out this most fundamental public interest goal.

In Docket No. 49421, for example and as explained more below, the Commission authorized many ring-fencing provisions for CEHE that are still in effect, the continuation of all of which CEHE does not dispute in this docket (though it requests modifications to two). I recommend that the Commission continue CEHE's current ring-fencing provisions, and I also recommend two additional provisions as described below.

Q. In the context of the Commission's regulation of the rates and operations of CEHE, are there reasons the Commission may wish to continue to expressly and pre-emptively address possible concerns about the impact on CEHE of the business activities of CenterPoint Energy, Inc. and its non-CEHE subsidiaries?

A. Yes. CenterPoint Energy, Inc. is a large public utility holding corporation whose subsidiaries operate public utilities in multiple states.[34] CenterPoint Energy, Inc.'s indirect, wholly owned subsidiaries include the following: CEHE; CERC Corp, which directly and indirectly owns and operates natural gas utilities and pipeline operations in multiple states; and SIGECO, which owns and operates electric and natural gas utilities in Indiana.[35] The 2023 Form 10-K for CenterPoint Energy, Inc. shows that it has total assets of approximately $39.715 billion.[36]

Given the number of subsidiaries discussed above that are part of the overall CenterPoint Energy, Inc. organization, to the degree that there are aspects of operational and financial intermingling or interdependency among the various entities, the effects of financial instability or weakness in one entity could affect not only CenterPoint Energy, Inc. as the parent company, but other subsidiaries as well. In an extreme case, an event that causes severe financial distress for CenterPoint Energy, Inc. could lead to its bankruptcy—a situation that, absent the presence of protective measures, could impact subsidiaries like CEHE dramatically and drag them along into the bankruptcy process.

[34] CenterPoint Energy, Inc. 2023 Form 10-K at 1, https://investors.centerpointenergy.com/ (accessed Jun. 11, 2024).

[35] *Id.*

[36] *Id.* at 88.

Q. Taking into account the above discussion, for a regulated company such as CEHE, what do you believe is the principal purpose of establishing regulatory requirements that implement certain financial protections?

A. From a regulatory perspective, the most fundamental reason for the implementation of certain types of financial protections is to provide for the regulated utility a set of safeguards against a parent (or sister) company's financial distress and potential contagiousness and, in an extreme situation, the parent's bankruptcy. Ultimately, I would characterize the goal of a regulatory authority's implementation of protective ring-fencing policies and standards as helping to ensure that the regulated utility maintains its ability to fulfill its core customer-oriented purpose: to provide reliable service at just and reasonable rates.

Q. In what proceedings has the Commission implemented ring-fencing provisions, including the use of measures specifically related to financial protection?

A. The Commission has ordered ring-fencing provisions in a number of dockets. Since 2008, these dockets have included the following sale-transfer-merger (STM) proceedings:

- Docket No. 34077, *Joint Report and Application of Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership Pursuant to PURA § 14.101*;[37]
- Docket No. 45188, *Joint Report and Application of Oncor Electric Delivery Company LLC, Ovation Acquisition I, LLC, Ovation Acquisition II, LLC, and Shary Holdings, LLC for Regulatory Approvals Pursuant to PURA §§ 14.101, 37.154, 39.262(l)-(m), and 39.915*;[38]

[37] *Joint Report and Application of Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership Pursuant to PURA § 14.101*, Docket No. 34077, Order on Rehearing (Apr. 24, 2008).

[38] *Joint Report and Application of Oncor Electric Delivery Company LLC, Ovation Acquisition I, LLC, Ovation Acquisition II, LLC, and Shary Holdings, LLC for Regulatory Approvals Pursuant to PURA §§ 14.101, 37.154, 39.262(l)-(m), and 39.915*, Docket No. 45188, Order (Mar. 24, 2016).

- Docket No. 47675, *Joint Report and Application of Oncor Electric Delivery Company LLC and Sempra Energy for Regulatory Approvals Pursuant to PURA §§ 14.101, 39.262, and 39.915*;[39]

- Docket No. 48929, *Joint Report and Application of Oncor Electric Delivery Company LLC, Sharyland Distribution & Transmission Services, L.L.C., Sharyland Utilities, L.P., and Sempra Energy for Regulatory Approvals Under PURA §§ 14.101, 37.154, 39.262, and 39.915*;[40]

- Docket No. 49849, *Joint Report and Application of El Paso Electric Company, Sun Jupiter Holdings LLC, and IIF US Holding 2 LP for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*;[41]

- Docket No. 50584, *Joint Report and Application of Wind Energy Transmission Texas, LLC; Axinfra US LP; Hotspur Holdco 1 LLC; Hotspur Holdco 2 LLC; and 730 Hotspur, LLC, for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*;[42]

- Docket No. 51547, *Joint Report and Application of Texas-New Mexico Power Company, NM Green Holdings, Inc., and Avangrid, Inc. for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*.[43]

Commission orders for all these STM dockets include various types of ring-fencing provisions, many of which are of a financial protection nature.

[39] *Joint Report and Application of Oncor Electric Delivery Company LLC and Sempra Energy for Regulatory Approvals Pursuant to PURA §§ 14.101, 39.262, and 39.915*, Docket No. 47675, Order (Mar. 8, 2018).

[40] *Joint Report and Application of Oncor Electric Delivery Company LLC, Sharyland Distribution & Transmission Services, L.L.C., Sharyland Utilities, L.P., and Sempra Energy for Regulatory Approvals Under PURA §§ 14.101, 37.154, 39.262, and 39.915*, Docket 48929, Order (May 9, 2019).

[41] *Joint Report and Application of El Paso Electric Company, Sun Jupiter Holdings LLC, and IIF US Holding 2 LP for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*, Docket 49849, Order (Jan. 28, 2020).

[42] *Joint Report and Application of Wind Energy Transmission Texas, LLC; Axinfra US LP; Hotspur Holdco 1 LLC; Hotspur Holdco 2 LLC; and 730 Hotspur, LLC, for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*, Docket 50584, Order (Jul. 24, 2020).

[43] *Joint Report and Application of Texas-New Mexico Power Company, NM Green Holdings, Inc., and Avangrid, Inc. for Regulatory Approvals Under PURA §§ 14.101, 39.262, and 39.915*, Docket 51547, Order (May 13, 2021).

Q. Have any Commission final orders from rate-related proceedings included ring-fencing provisions?

A. Yes. The following Commission final orders from rate-related dockets have included ring-fencing provisions to ensure that Texas ratepayers have meaningful financial protections:

- Docket No. 49421, *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*;[44]
- Docket No. 49494, *Application of AEP Texas Inc. for Authority to Change Rates*;[45]
- Docket No. 49831, *Application of Southwestern Public Service Company for Authority to Change Rates*;[46]
- Docket No. 51415, *Application of Southwestern Electric Power Company for Authority to Change Rates*;[47]
- Docket No. 51802, *Application of Southwestern Public Service Company for Authority to Change Rates*;[48]
- Docket No. 52195, *Application of El Paso Electric Company to Change Rates*;[49]
- Docket No. 53601, *Application of Oncor Electric Delivery Company LLC for Authority to Change Rates*;[50] and

[44] *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 49421, Order, Finding of Fact Nos. 71-87 (Mar. 9, 2020).

[45] *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 49494, Order, Finding of Fact Nos. 108-121 (Apr. 6, 2020).

[46] *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 49831, Order, Finding of Fact Nos. 75-91 (Aug. 27, 2020).

[47] *Application of Southwestern Electric Power Company for Authority to Change Rates*, Docket No. 51415, Order, Finding of Fact Nos. 106-110 (Jan. 14, 2022).

[48] *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 51802, Order, Finding of Fact Nos. 83-84 (May 20, 2022).

[49] *Application of El Paso Electric Company to Change Rates*, Docket No. 52195, Order, Finding of Fact Nos. 127-129 (Sep. 15, 2022).

[50] *Application of Oncor Electric Delivery Company LLC for Authority to Change Rates*, Docket No. 53601, Order, Finding of Fact Nos. 191-192 (Apr. 6, 2023).

- Docket No. 53719, *Application of Entergy Texas, Inc. for Authority to Change Rates*.[51]

The ring-fencing provisions in these recent Commission final orders are similar or identical to the measures I propose the Commission adopt in this proceeding.

Q. Why do you believe that implementation of the provisions that you recommend would be effective in providing a meaningful degree of separation between CEHE and CenterPoint Energy, Inc.?

A. The reason, quite simply, is that they are known to have worked. In the 2014 bankruptcy of Energy Futures Holdings Corporation (EFH), the various ring-fencing provisions that the Commission included in its order for Docket No. 34077 (referenced previously in this section) served their purpose: they effectively insulated Oncor Electric Delivery Company LLC (Oncor) from its parent's bankruptcy filing and preserved Oncor's stand-alone credit status and financial stability. Throughout the entirety of EFH's approximately three-year-long bankruptcy process, Oncor maintained its bankruptcy-remote separateness and its ability to provide reliable delivery service at just and reasonable rates.

It is important to keep in mind the reasonable assumption that, at the time of the Commission's order in Docket No. 34077, the consensus of interested parties was not that a future bankruptcy awaited EFH. Indeed, had the assessment been otherwise, I believe it is reasonable to conclude that the 2007 leveraged buyout (LBO) of TXU Energy—which was (and still is) the largest LBO transaction in history[52]—would never have taken place.

Such generally optimistic expectations notwithstanding, economic events can sometimes take unpredictable twists and turns—and ultimately for EFH, twist and turn

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[51] *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 53719, Order, Finding of Fact Nos. 118-119 (Aug. 24, 2023).

[52] Gillian Brassil, Scott Mlyn, and Adam Jeffery, *Here Are the Top 10 Largest Leveraged Buyouts in History*, CNBC Business News, Aug. 7, 2018, https://www.cnbc.com/2018/08/07/here-are-the-top-10-largest-leveraged-buyouts-in-history.html; *see also* Energy Future Holdings, https://en.wikipedia.org/wiki/Energy_Future_Holdings.

they did. Seven years after the Commission's order in Docket No. 34077, EFH declared bankruptcy. Oncor, however, effectively stayed isolated from the bankruptcy fray—and the basic reason was that the Commission's ring-fencing provisions achieved the exact objectives for which they were intended. Though the Commission may have implemented ring-fencing provisions in Docket No. 34077 largely out of an abundance of caution, in the end the Commission's prudence and foresight paid off: Oncor remained bankruptcy-remote and effectively financially separated from the morass of legal wrangling as the largest LBO in history deteriorated into a multi-billion-dollar bankruptcy.

Accordingly, given the unpredictable nature of economic realities, I believe it is reasonable to consider how (relatively recent) past events may help inform and guide Commission decisions relevant to the particular circumstances of this proceeding. Consequently, in order to protect CEHE's ability to provide reliable service at just and reasonable rates, I recommend that the Commission require (or, in most cases, continue to require) CEHE to implement the measures I have described here.

Q. What ring-fencing provisions did the Commission order for CEHE in Docket No. 49421 that still apply to CEHE today?

A. The Final Order in Docket No. 49421 provides the following current 14 ring-fencing provisions for CEHE to protect ratepayers in the event of financial distress or bankruptcy of its parent or affiliate (numbering per findings of fact in the order, with titles added):

> 72. [No Cross-Default Provisions.] CenterPoint Houston's [CEHE] credit agreements and indentures must not contain cross-default provisions by which a default by CenterPoint Energy, Inc. (CNP) or its other affiliates would cause a default at CEHE.
>
> 73. [No Financial Covenants or Rating-Agency Triggers Related to Another Entity.] The financial covenant[s] in CEHE's credit agreement must not be related to any entity other than CEHE. CEHE must not include in its debt or credit agreements any financial covenants or rating-agency triggers related to any entity other than CEHE.

74. [No CEHE Assets Pledged for Affiliates.] CEHE must not pledge its assets in respect of or guarantee any debt or obligation of any of its affiliates. CEHE must not pledge, mortgage, hypothecate, or grant a lien on the property of CEHE except under an exception in effect in CEHE's current credit agreement, such as the first mortgage and general mortgage.

75. [No Sharing of Credit Facility.] CEHE must maintain its own stand-alone credit facility, and CEHE must not share its credit facility with any regulated or unregulated affiliate.

76. [Registrations with Three Ratings Agencies.] CEHE must maintain registrations with all three ratings agencies.

77. [Stand-Alone Credit Rating.] CEHE must maintain a stand-alone credit rating.

78. [CEHE Debt Secured Only with CEHE Assets.] CEHE's first mortgage bonds and general mortgage bonds must be secured only with CEHE's assets.

79. [No CEHE Assets Pledged for Affiliates' Debt.] No CEHE assets may be used to secure the debt of CenterPoint Energy, Inc. or its non-CEHE affiliates.

80. [No Credit for Affiliate Debt.] CEHE must not hold out its credit as being available to pay the debt of any affiliates (provided that, for the avoidance of doubt, CEHE is not considered to be holding its credit out to pay the debt of affiliates, or in breach of any other ring-fencing measure, with respect to the $68 million of CEHE general mortgage bonds that currently serve as collateral for certain outstanding CenterPoint Energy, Inc. pollution control bonds).

81. [No Debt Disproportionally Dependent on CEHE.] Without prior approval of the Commission, neither CenterPoint Energy, Inc. nor any affiliate of CenterPoint Energy, Inc. (except for CEHE) may incur, guaranty, or pledge assets in respect of any incremental new debt that is dependent on the revenues of CEHE in more than a proportionate degree than the other revenues of CenterPoint Energy, Inc. or [dependent on] the stock of CEHE.

82. [Affiliate Asset Transfer Commitment.] CEHE must not transfer any material assets or facilities to any affiliates, except through a transfer that is on an arm's-length basis in accordance with the Commission's affiliate standards applicable to CEHE.

83. [No Commingling of Assets.] Except for its participation in an affiliate money pool, CEHE must not commingle its assets with those of other CenterPoint Energy, Inc. affiliates.

84. [No Inter-Company Lending and Borrowing Commitment.] Except for its participation in an affiliate money pool, CEHE must not lend money to or borrow money from CenterPoint Energy, Inc. affiliates.

85. [Notification of Less-than-Investment-Grade Rating.] CEHE must notify the Commission if its credit issuer rating or corporate rating as rated by any of the three major rating agencies falls below investment-grade level.

Q. Does CEHE request release from or modification to any of its current ring-fencing provisions?

A. CEHE does not request release from any of its current ring-fencing provisions from Docket No. 49421. CEHE is requesting, however, modifications to two ring-fencing provisions (numbers 76 and 85 above) as follows (with CEHE's requested changes shown in underline and strikethrough):[53]

76. [Registrations with ~~Three~~ Ratings Agencies.] CEHE must maintain registrations with Moody's and S&P ~~all three~~ ratings agencies.

85. [Notification of Less-than-Investment-Grade Rating.] CEHE must notify the Commission if its credit issuer rating or corporate rating as rated by Moody's or S&P ~~any of the three major rating agencies~~ falls below investment-grade level.

I support CEHE's requested modifications to these two ring-fencing provisions.

Q. What is your recommendation regarding ring-fencing in this proceeding?

A. I recommend that the Commission continue to require CEHE to implement the ring-fencing provisions from Docket No. 49421, with CEHE's proposed two modifications, that are designed to create an effective degree of insulation between CEHE and its parent company CenterPoint Energy, Inc. and CenterPoint Energy Inc.'s other affiliates. These measures have provided and continue to provide CEHE and its ratepayers with meaningful protection against possible situations of financial distress by non-CEHE entities that are part of the CenterPoint Energy, Inc. organization.

As further described below, I also recommend that the Commission adopt two additional ring-fencing provisions. Whether or not the Commission adopts the supplementary provisions, I strongly recommend that the Commission continue the

[53] Richert Direct at pages 30 of 36 - 31 of 36 (Bates pages 2264-2265).

numerous current ring-fencing provisions from Docket No. 49421 that have provided benefits to CEHE and its ratepayers and to which CEHE does not object.

Q. Why do you say that the current ring-fencing provisions have provided and continue to provide benefits to CEHE and its ratepayers?

A. Even if some of the ring-fencing provisions from Docket No. 49421 have not been called into play because CenterPoint Energy, Inc. and affiliates have not experienced financial distress, CEHE, its ratepayers, and the State of Texas have benefitted from having the ring-fencing provisions in place in much the same way that a homeowner benefits from having homeowner's insurance in place in a year even if the homeowner does not have an emergency. The insurance provided value during the year in case an unforeseen incident happened. Similarly, the ring-fencing provisions helped protect CEHE against possibly negative situations, whether or not those situations materialized.

Q. What ring-fencing provisions do you recommend that the Commission order for CEHE in addition to the provisions from Docket No. 49421?

A. In addition to the important ring-fencing provisions from Docket No. 49421 that the Commission should continue in this docket (and which CEHE does not dispute except for the requested modifications to two provisions), I also recommend that the Commission adopt the following two additional ring-fencing provisions:

1. [No Bankruptcy Cost Commitment.] CEHE will not seek to recover from customers any costs incurred as a result of a bankruptcy of CenterPoint Energy, Inc. or any of its affiliates.

2. [No CEHE Assets Pledged for Other Entities' Debt.] No CEHE assets may be pledged for or used to secure the debt of other entities.

Q. Has the Commission authorized the additional provisions you recommend (on top of the ring-fencing provisions currently in place from Docket No. 49421) for other investor-owned utilities?

A. Yes. The first additional ring-fencing provision that I recommend (relating to a bankruptcy cost commitment) currently applies to many utilities, including Oncor,[54] AEP,[55] Southwestern Public Service Company (SPS),[56] SWEPCO,[57] El Paso Electric Company (EPE),[58] and Entergy Texas, Inc (ETI).[59] The second additional ring-fencing provision that I recommend (relating to no utility assets being pledged for other entities' debt) currently applies to many utilities, including Oncor,[60] AEP,[61] SWEPCO,[62] EPE,[63] and ETI.[64]

Q. Please summarize your recommendation on ring-fencing.

A. CEHE is currently subject to 14 ring-fencing provisions. While CEHE does not request release from any of the current ring-fencing provisions, it does seek modification to two provisions. I support CEHE's requested modifications to those two provisions, and, in addition to recommending that the Commission otherwise continue CEHE's current ring-fencing provisions, I recommend two additional provisions as described above. Whether or not the Commission adopts the additional provisions I recommend, it should continue the important current ring-fencing provisions (to which CEHE does not object).

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[54] Docket No. 53601, Order, Finding of Fact No. 192 and Docket No. 47675, Order, Finding of Fact No. 64.

[55] Docket No. 49494, Order, Finding of Fact No. 119.

[56] Docket No. 51802, Order, Finding of Fact No. 83 and Docket No. 49831, Order, Finding of Fact No. 90.

[57] Docket No. 51415, Order, Finding of Fact No. 108j.

[58] Docket No. 49849, Order, Finding of Fact No. 60r.

[59] Docket No. 53719, Order, Finding of Fact No. 118k.

[60] Docket No. 53601, Order, Finding of Fact No. 192 and Docket No. 47675, Order, Finding of Fact No. 60.

[61] Docket No. 49494, Order, Finding of Fact No. 112.

[62] Docket No. 51415, Order, Finding of Fact No. 108f.

[63] Docket No. 49849, Order, Finding of Fact No. 60j.

[64] Docket No. 53719, Order, Finding of Fact No. 118f.

X. CONCLUSION

Q. If you do not address an issue or position in your testimony, should that be interpreted as support for CEHE's position on that issue?

A. No. The fact that I do not address an issue or position in my testimony should not be construed as agreeing with, endorsing, or consenting to any position taken by CEHE.

Q. Does this conclude your testimony?

A. Yes.

WEIGHTED-AVERAGE COST OF CAPITAL

	% of Total	*Component Cost*	*Weighted Avg. Cost*
Long-Term Debt	57.50%	4.29%	2.47%
Common Equity	42.50%	9.75%	4.14%
	100.00%		**6.61%**

SELECTION CRITERIA FOR COMPARABLE COMPANIES & EARNINGS GROWTH

Ticker Symbol	Company	Market Cap.[1] (Millions)	LTD/Capital[1] (%)	S&P Rating[2]	Earnings Growth VL[1]	Zacks[3]	Yahoo[4]	***Average***
ALE	ALLETE, Inc.	$3,200	40.3%	BBB	6.00%	NA	8.10%	***7.05%***
LNT	Alliant Energy Corporation	$12,100	54.8%	A-	6.50%	6.10%	6.30%	***6.30%***
AEE	Ameren Corporation	$18,600	55.7%	BBB+	6.50%	6.48%	4.80%	***5.93%***
AEP	American Electric Power C	$42,500	58.2%	BBB+	6.50%	5.80%	6.19%	***6.16%***
AVA	Avista Corporation	$2,800	51.2%	BBB	6.00%	NA	6.20%	***6.10%***
BKH	Black Hills Corporation	$3,700	54.2%	BBB+	3.50%	NA	NA	***3.50%***
ED	Consolidated Edison, Inc.	$31,300	49.3%	A-	6.00%	2.00%	6.09%	***4.70%***
DUK	Duke Energy Corporation	$73,800	56.1%	BBB+	5.00%	6.28%	6.86%	***6.05%***
EVRG	Evergy, Inc.	$11,400	50.0%	BBB+	7.50%	5.00%	2.50%	***5.00%***
ES	Eversource Energy	$19,300	56.3%	A-	5.50%	4.16%	3.25%	***4.30%***
FTS	Fortis Inc.	$25,400	54.2%	A-	5.00%	6.00%	1.89%	***4.30%***
IDA	IDACORP, Inc.	$4,700	48.8%	BBB	5.00%	NA	4.40%	***4.70%***
NEE	NextEra Energy, Inc.	$122,000	56.4%	A-	8.50%	7.99%	7.84%	***8.11%***
NWE	NorthWestern Energy Gro	$3,100	49.1%	BBB	4.00%	NA	4.50%	***4.25%***
PNW	Pinnacle West Capital Cor	$8,400	55.0%	BBB+	4.50%	7.55%	6.95%	***6.33%***
POR	Portland General Electric (	$4,200	55.8%	BBB+	6.00%	NA	NA	***6.00%***
PEG	Public Service Enterprise (	$28,900	54.6%	BBB+	4.00%	6.24%	5.25%	***5.16%***
SRE	Sempra Energy	$44,700	49.2%	BBB+	7.00%	6.00%	5.90%	***6.30%***
WEC	WEC Energy Group, Inc.	$24,200	54.9%	A-	6.00%	7.17%	6.68%	***6.62%***
	Averages	*$25,489*	*52.8%*	*BBB+*	*5.74%*	*5.91%*	*5.51%*	***5.62%***

Sources:
[1] *The Value Line Investment Survey,* February 9, March 8, and April 19, 2024.
[2] *Long-term Issuer Rating,* S&P Global (customized reports from www.spglobal.com, accessed May 9, 2024)
[3] *Zacks Investment Research* (www.zacks.com/stock/quote/, accessed May 9 and 13, 2024)
[4] *Yahoo Stock Forecasts* (www.finance.yahoo.com/quote/, accessed May 10, 2024)

AVERAGE STOCK PRICES

Ticker Symbol	Company	***12-week Average***	12 3-Jun-24	11 27-May-24	10 20-May-24	9 13-May-24	8 6-May-24	7 29-Apr-24	6 22-Apr-24	5 15-Apr-24	4 8-Apr-24	3 1-Apr-24	2 25-Mar-24	1 18-Mar-24
ALE	ALLETE, Inc.	***$60.65***	$62.99	$63.15	$62.92	$62.10	$62.50	$63.56	$58.36	$59.05	$57.68	$58.65	$58.98	$57.88
LNT	Alliant Energy Corporation	***$49.84***	$50.55	$51.49	$49.95	$51.97	$51.33	$50.36	$49.11	$49.34	$47.54	$48.38	$49.91	$48.20
AEE	Ameren Corporation	***$73.14***	$72.10	$73.37	$71.34	$74.74	$74.40	$74.09	$73.66	$73.88	$71.76	$72.71	$73.96	$71.68
AEP	American Electric Power	***$86.56***	$88.70	$90.25	$88.97	$92.67	$90.72	$87.74	$84.43	$83.38	$81.30	$83.13	$85.26	$82.14
AVA	Avista Corporation	***$35.57***	$35.53	$36.98	$36.32	$37.90	$37.94	$36.84	$35.11	$34.64	$33.58	$34.17	$34.59	$33.25
BKH	Black Hills Corporation	***$54.18***	$54.22	$56.45	$54.86	$56.13	$56.40	$55.13	$53.24	$53.38	$51.64	$53.13	$53.98	$51.65
ED	Consolidated Edison, Inc.	***$92.21***	$91.89	$94.55	$94.43	$96.27	$96.87	$94.75	$92.14	$90.99	$87.88	$88.89	$90.04	$87.85
DUK	Duke Energy Corporation	***$98.73***	$102.86	$103.57	$102.17	$102.86	$101.65	$99.27	$96.74	$97.27	$93.96	$94.96	$95.75	$93.67
EVRG	Evergy, Inc.	***$52.69***	$53.41	$54.66	$53.43	$54.47	$54.78	$53.47	$51.09	$51.16	$50.36	$51.60	$52.76	$51.03
ES	Eversource Energy	***$58.86***	$58.83	$59.23	$57.53	$60.24	$61.19	$59.31	$58.76	$58.99	$58.10	$57.82	$59.07	$57.21
FTS	Fortis Inc.	***$39.30***	$40.68	$39.99	$39.90	$40.34	$40.67	$39.49	$38.65	$38.06	$37.22	$38.39	$39.09	$39.10
IDA	IDACORP, Inc.	***$93.63***	$92.79	$95.47	$95.61	$98.47	$97.81	$95.36	$93.78	$93.08	$89.43	$90.48	$92.08	$89.14
NEE	NextEra Energy, Inc.	***$69.27***	$76.21	$79.50	$76.12	$75.60	$73.32	$69.69	$65.57	$63.89	$62.67	$63.77	$63.50	$61.38
NWE	NorthWestern Energy Gr	***$50.67***	$51.02	$51.96	$51.02	$52.56	$51.77	$51.18	$49.55	$50.13	$48.90	$49.88	$50.93	$49.12
PNW	Pinnacle West Capital Co	***$74.87***	$76.55	$78.86	$76.82	$78.44	$77.24	$74.90	$72.82	$73.53	$71.39	$71.91	$73.85	$72.15
POR	Portland General Electric	***$42.89***	$43.30	$44.56	$43.72	$44.99	$44.55	$43.77	$42.80	$42.80	$40.56	$41.35	$42.00	$40.26
PEG	Public Service Enterprise	***$70.17***	$74.44	$75.76	$75.04	$74.54	$74.01	$70.45	$67.82	$65.74	$65.87	$66.52	$66.78	$65.03
SRE	Sempra Energy	***$73.23***	$75.99	$77.03	$75.84	$78.17	$77.18	$72.92	$71.32	$70.08	$68.69	$70.52	$71.83	$69.16
WEC	WEC Energy Group, Inc.	***$81.12***	$80.35	$81.03	$80.70	$84.66	$84.60	$82.41	$80.69	$80.76	$78.20	$79.50	$81.32	$79.23

Stock prices obtained from Yahoo Finance, which adjusts the prices to reflect the effects of the date that the next dividend is expected to be paid.

FORECASTED DIVIDENDS

Ticker Symbol	Company	Growth Rate[1] (Attach. MF-2)	Next Four Quarters[2] Next	2nd	3rd	4th	***Total Proj. D_1***	Stock Price (Attach. MF-3)	Dividend Yield
ALE	ALLETE, Inc.	7.05%	$0.7050	$0.7050	$0.7050	$0.7547	***$2.87***	$60.65	4.73%
LNT	Alliant Energy Corporatic	6.30%	$0.4800	$0.4800	$0.4800	$0.5102	***$1.95***	$49.84	3.91%
AEE	Ameren Corporation	5.93%	$0.6673	$0.6673	$0.6673	$0.6673	***$2.67***	$73.14	3.65%
AEP	American Electric Power	6.16%	$0.8800	$0.8800	$0.8800	$0.9342	***$3.57***	$86.56	4.13%
AVA	Avista Corporation	6.10%	$0.4750	$0.4750	$0.4750	$0.5040	***$1.93***	$35.57	5.42%
BKH	Black Hills Corporation	3.50%	$0.6500	$0.6500	$0.6500	$0.6728	***$2.62***	$54.18	4.84%
ED	Consolidated Edison, Inc	4.70%	$0.8300	$0.8300	$0.8300	$0.8690	***$3.36***	$92.21	3.64%
DUK	Duke Energy Corporatio	6.05%	$1.0250	$1.0870	$1.0870	$1.0870	***$4.29***	$98.73	4.34%
EVRG	Evergy, Inc.	5.00%	$0.6425	$0.6425	$0.6425	$0.6746	***$2.60***	$52.69	4.94%
ES	Eversource Energy	4.30%	$0.7040	$0.7040	$0.7040	$0.7040	***$2.82***	$58.86	4.78%
FTS	Fortis Inc.	4.30%	$0.5900	$0.5900	$0.6154	$0.6154	***$2.41***	$39.30	6.13%
IDA	IDACORP, Inc.	4.70%	$0.8300	$0.8300	$0.8690	$0.8690	***$3.40***	$93.63	3.63%
NEE	NextEra Energy, Inc.	8.11%	$0.5054	$0.5054	$0.5054	$0.5054	***$2.02***	$69.27	2.92%
NWE	NorthWestern Energy Gr	4.25%	$0.6500	$0.6500	$0.6500	$0.6776	***$2.63***	$50.67	5.19%
PNW	Pinnacle West Capital C	6.33%	$0.8800	$0.8800	$0.9357	$0.9357	***$3.63***	$74.87	4.85%
POR	Portland General Electric	6.00%	$0.5035	$0.5035	$0.5035	$0.5035	***$2.01***	$42.89	4.70%
PEG	Public Service Enterprise	5.16%	$0.5994	$0.5994	$0.5994	$0.5994	***$2.40***	$70.17	3.42%
SRE	Sempra Energy	6.30%	$0.6200	$0.6200	$0.6200	$0.6591	***$2.52***	$73.23	3.44%
WEC	WEC Energy Group, Inc	6.62%	$0.8350	$0.8350	$0.8350	$0.8902	***$3.40***	$81.12	4.19%

[1] *The growth rate is applied to the quarterly dividend during the period the dividend has historically been increased.*

[2] *Value Line Investment Report*, February 9, March 8, and April 19, 2024.

DISCOUNTED CASH FLOW

Single-Stage

Ticker Symbol	Company	Stock Price (Attch. MF-3)	Div1 (Attch. MF-4)	Dividend Yield (Attch. MF-4)	Div. Growth (Attch. MF-2)	DCF ROE
ALE	ALLETE, Inc.	$60.65	$2.87	4.73%	7.05%	11.78%
LNT	Alliant Energy Corporation	$49.84	$1.95	3.91%	6.30%	10.21%
AEE	Ameren Corporation	$73.14	$2.67	3.65%	5.93%	9.58%
AEP	American Electric Power Compa	$86.56	$3.57	4.13%	6.16%	10.29%
AVA	Avista Corporation	$35.57	$1.93	5.42%	6.10%	11.52%
BKH	Black Hills Corporation	$54.18	$2.62	4.84%	3.50%	8.34%
ED	Consolidated Edison, Inc.	$92.21	$3.36	3.64%	4.70%	8.34%
DUK	Duke Energy Corporation	$98.73	$4.29	4.34%	6.05%	10.39%
EVRG	Evergy, Inc.	$52.69	$2.60	4.94%	5.00%	9.94%
ES	Eversource Energy	$58.86	$2.82	4.78%	4.30%	9.09%
FTS	Fortis Inc.	$39.30	$2.41	6.13%	4.30%	10.43%
IDA	IDACORP, Inc.	$93.63	$3.40	3.63%	4.70%	8.33%
NEE	NextEra Energy, Inc.	$69.27	$2.02	2.92%	8.11%	11.03%
NWE	NorthWestern Energy Group, In	$50.67	$2.63	5.19%	4.25%	9.44%
PNW	Pinnacle West Capital Corporat	$74.87	$3.63	4.85%	6.33%	11.18%
POR	Portland General Electric Comp	$42.89	$2.01	4.70%	6.00%	10.70%
PEG	Public Service Enterprise Group	$70.17	$2.40	3.42%	5.16%	8.58%
SRE	Sempra Energy	$73.23	$2.52	3.44%	6.30%	9.74%
WEC	WEC Energy Group, Inc.	$81.12	$3.40	4.19%	6.62%	10.80%
					Average	***9.98%***

DISCOUNTED CASH FLOW

Multistage

	ALE	LNT	AEE	AEP	AVA	BKH	ED	DUK	EVRG	ES	FTS	IDA	NEE	NWE	PNW	POR	PEG	SRE	WEC
Stock Price	$60.65	$49.84	$73.14	$86.56	$35.57	$54.18	$92.21	$98.73	$52.69	$58.86	$39.30	$93.63	$69.27	$50.67	$74.67	$42.89	$70.17	$73.23	$81.12
Div1	$2.67	$1.95	$2.67	$3.57	$1.93	$2.62	$3.36	$4.29	$2.60	$2.82	$2.41	$3.40	$2.02	$2.63	$3.63	$2.01	$2.40	$2.52	$3.40
5-Yr Growth	7.05%	6.30%	5.93%	6.16%	6.10%	3.50%	4.70%	6.05%	5.00%	4.30%	4.30%	4.70%	8.11%	4.25%	6.33%	6.00%	5.16%	6.30%	6.62%
L-t Growth	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%	5.09%
Cost of Equity	***10.14%***	***9.16%***	***8.83%***	***9.36%***	***10.70%***	***9.66%***	***8.66%***	***9.57%***	***10.01%***	***9.74%***	***11.06%***	***8.65%***	***8.30%***	***10.13%***	***10.14%***	***9.93%***	***8.49%***	***8.65%***	***9.49%***

Average ROE

9.51%

Cash Flows

2022	-$60.65	-$49.84	-$73.14	-$86.56	-$35.57	-$54.18	-$92.21	-$98.73	-$52.69	-$58.86	-$39.30	-$93.63	-$69.27	-$50.67	-$74.67	-$42.89	-$70.17	-$73.23	-$81.12
2023	$2.87	$1.95	$2.67	$3.57	$1.93	$2.62	$3.36	$4.29	$2.60	$2.82	$2.41	$3.40	$2.02	$2.63	$3.63	$2.01	$2.40	$2.52	$3.40
2024	$3.07	$2.07	$2.83	$3.79	$2.05	$2.71	$3.52	$4.55	$2.73	$2.94	$2.51	$3.56	$2.19	$2.74	$3.86	$2.13	$2.52	$2.68	$3.62
2025	$3.29	$2.20	$3.00	$4.03	$2.17	$2.81	$3.68	$4.82	$2.87	$3.06	$2.62	$3.72	$2.36	$2.86	$4.11	$2.26	$2.65	$2.85	$3.86
2026	$3.52	$2.34	$3.17	$4.26	$2.30	$2.91	$3.85	$5.11	$3.01	$3.20	$2.73	$3.90	$2.55	$2.98	$4.37	$2.40	$2.79	$3.03	$4.11
2027	$3.77	$2.49	$3.36	$4.54	$2.44	$3.01	$4.04	$5.42	$3.16	$3.33	$2.85	$4.08	$2.76	$3.10	$4.64	$2.54	$2.93	$3.22	$4.39
2028	$3.96	$2.62	$3.53	$4.77	$2.57	$3.16	$4.24	$5.70	$3.32	$3.50	$3.00	$4.29	$2.90	$3.26	$4.88	$2.67	$3.08	$3.38	$4.61
2029	$4.16	$2.75	$3.71	$5.01	$2.70	$3.32	$4.46	$5.99	$3.49	$3.68	$3.15	$4.51	$3.05	$3.43	$5.13	$2.81	$3.24	$3.55	$4.85
2030	$4.37	$2.89	$3.90	$5.27	$2.84	$3.49	$4.68	$6.29	$3.67	$3.87	$3.31	$4.74	$3.21	$3.60	$5.39	$2.95	$3.40	$3.73	$5.09
2031	$4.60	$3.04	$4.10	$5.54	$2.98	$3.67	$4.92	$6.61	$3.86	$4.07	$3.48	$4.98	$3.37	$3.79	$5.66	$3.10	$3.58	$3.92	$5.35
2032	$4.83	$3.19	$4.31	$5.82	$3.13	$3.86	$5.17	$6.95	$4.05	$4.27	$3.66	$5.23	$3.54	$3.98	$5.95	$3.26	$3.76	$4.12	$5.62
2033	$5.08	$3.35	$4.53	$6.12	$3.29	$4.05	$5.44	$7.30	$4.26	$4.49	$3.84	$5.50	$3.72	$4.18	$6.25	$3.42	$3.95	$4.33	$5.91
2034	$5.33	$3.52	$4.76	$6.43	$3.46	$4.26	$5.71	$7.67	$4.48	$4.72	$4.04	$5.78	$3.91	$4.39	$6.57	$3.60	$4.15	$4.55	$6.21
2035	$5.61	$3.70	$5.00	$6.75	$3.64	$4.48	$6.00	$8.06	$4.71	$4.96	$4.24	$6.07	$4.11	$4.62	$6.91	$3.78	$4.36	$4.78	$6.53
2036	$5.89	$3.89	$5.25	$7.10	$3.82	$4.71	$6.31	$8.47	$4.94	$5.21	$4.46	$6.38	$4.32	$4.85	$7.26	$3.97	$4.58	$5.03	$6.86
2037	$6.19	$4.09	$5.52	$7.46	$4.02	$4.94	$6.63	$8.91	$5.20	$5.48	$4.69	$6.71	$4.54	$5.10	$7.63	$4.18	$4.82	$5.28	$7.21
2038	$6.51	$4.30	$5.80	$7.84	$4.22	$5.20	$6.97	$9.36	$5.46	$5.75	$4.92	$7.05	$4.77	$5.36	$8.02	$4.39	$5.06	$5.55	$7.57
2039	$6.84	$4.52	$6.10	$8.24	$4.44	$5.46	$7.32	$9.83	$5.74	$6.05	$5.18	$7.41	$5.01	$5.63	$8.42	$4.61	$5.32	$5.84	$7.96
2040	$7.19	$4.75	$6.41	$8.66	$4.66	$5.74	$7.70	$10.34	$6.03	$6.36	$5.44	$7.79	$5.27	$5.92	$8.85	$4.85	$5.59	$6.13	$8.37
2041	$7.55	$4.99	$6.73	$9.10	$4.90	$6.03	$8.09	$10.86	$6.34	$6.68	$5.72	$8.18	$5.53	$6.22	$9.30	$5.09	$5.88	$6.45	$8.79
2042	$7.94	$5.24	$7.08	$9.56	$5.15	$6.34	$8.50	$11.41	$6.66	$7.02	$6.01	$8.60	$5.82	$6.54	$9.78	$5.35	$6.18	$6.77	$9.24
2043	$8.34	$5.51	$7.44	$10.05	$5.41	$6.66	$8.93	$12.00	$7.00	$7.38	$6.31	$9.04	$6.11	$6.87	$10.27	$5.63	$6.49	$7.12	$9.71
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2167	$3,933.49	$2,599.06	$3,507.70	$4,738.89	$2,551.43	$3,141.33	$4,212.44	$5,657.55	$3,301.26	$3,478.96	$2,977.28	$4,261.94	$2,882.48	$3,239.38	$4,845.68	$2,653.86	$3,060.92	$3,357.12	$4,578.96
2168	$4,133.71	$2,731.35	$3,686.24	$4,980.10	$2,681.29	$3,301.22	$4,426.86	$5,945.52	$3,469.30	$3,656.04	$3,128.83	$4,478.87	$3,029.19	$3,404.27	$5,092.32	$2,788.94	$3,216.72	$3,527.99	$4,812.03
2169	$4,344.11	$2,870.38	$3,873.87	$5,233.58	$2,817.77	$3,469.25	$4,652.18	$6,248.15	$3,645.89	$3,842.13	$3,288.08	$4,706.85	$3,183.38	$3,577.55	$5,351.52	$2,930.90	$3,380.45	$3,707.57	$5,056.96
2170	$4,565.23	$3,016.48	$4,071.05	$5,499.97	$2,961.20	$3,645.84	$4,888.98	$6,566.18	$3,831.46	$4,037.70	$3,455.45	$4,946.43	$3,345.42	$3,759.64	$5,623.92	$3,080.08	$3,552.51	$3,896.28	$5,314.36
2171	$4,797.60	$3,170.02	$4,278.26	$5,779.92	$3,111.92	$3,831.41	$5,137.83	$6,900.40	$4,026.48	$4,243.22	$3,631.33	$5,198.20	$3,515.70	$3,951.01	$5,910.17	$3,236.86	$3,733.34	$4,094.61	$5,584.86
2172	$5,041.80	$3,331.37	$4,496.03	$6,074.12	$3,270.32	$4,026.43	$5,399.34	$7,251.63	$4,231.43	$4,459.20	$3,816.16	$5,462.79	$3,694.65	$4,152.12	$6,211.00	$3,401.61	$3,923.36	$4,303.02	$5,869.13

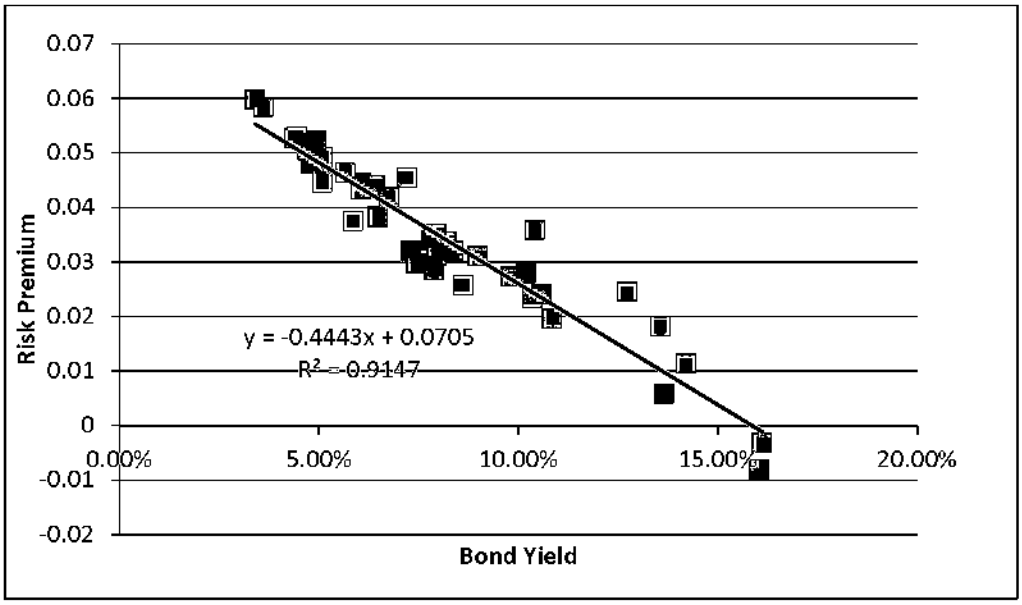
CONVENTIONAL RISK-PREMIUM ANALYSIS OF ELECTRIC UTILITIES' AUTHORIZED RATES OF RETURN ON EQUITY AND CONCURRENT CORPORATE BOND YIELDS

Year	*Allowed ROE*[1]	*Avg Baa Bond Yield*[2]	*Risk Premium*
2023	9.60%	5.85%	3.75%
2022	9.54%	5.08%	4.46%
2021	9.38%	3.40%	5.98%
2020	9.44%	3.60%	5.84%
2019	9.66%	4.38%	5.28%
2018	9.60%	4.80%	4.80%
2017	9.74%	4.44%	5.30%
2016	9.77%	4.72%	5.05%
2015	9.84%	5.00%	4.84%
2014	9.91%	4.85%	5.06%
2013	10.03%	5.10%	4.93%
2012	10.17%	4.94%	5.23%
2011	10.29%	5.66%	4.63%
2010	10.37%	6.04%	4.33%
2009	10.52%	7.30%	3.22%
2008	10.41%	7.43%	2.98%
2007	10.30%	6.48%	3.82%
2006	10.32%	6.48%	3.84%
2005	10.51%	6.06%	4.45%
2004	10.81%	6.40%	4.41%
2003	10.96%	6.77%	4.19%
2002	11.21%	7.81%	3.40%
2001	11.07%	7.95%	3.12%
2000	11.58%	8.37%	3.21%
1999	10.72%	7.87%	2.85%
1998	11.77%	7.22%	4.55%
1997	11.33%	7.87%	3.46%
1996	11.40%	8.05%	3.35%
1995	11.58%	8.20%	3.38%
1994	11.21%	8.63%	2.58%
1993	11.46%	7.94%	3.52%
1992	12.09%	8.98%	3.11%
1991	12.54%	9.81%	2.73%
1990	12.70%	10.35%	2.35%
1989	12.97%	10.18%	2.79%
1988	12.80%	10.84%	1.96%
1987	12.98%	10.57%	2.41%
1986	13.99%	10.40%	3.59%
1985	15.18%	12.72%	2.46%
1984	15.34%	14.20%	1.14%
1983	15.37%	13.55%	1.82%
1982	15.79%	16.11%	-0.32%
1981	15.22%	16.03%	-0.81%
1980	14.23%	13.64%	0.59%
Averages[3]	*11.49%*	*8.00%*	*3.49%*

[1] *S&P Global (https://platform.mi.spglobal.com/web/client?auth=inherit#industry/statisticsAndGraphs; available at www.snl.com)*

[2] *Mergent Bond Record, February 2023, pg. 19,* and earlier editions.

CONVENTIONAL RISK-PREMIUM ANALYSIS OF ELECTRIC UTILITIES' AUTHORIZED RATES OF RETURN ON EQUITY AND CONCURRENT CORPORATE BOND YIELDS



Computation of ROE

Avg Seasoned Baa Bond Yield, Jan. - Mar. 2024:		5.73%
Average bond yield over study period:	-	8.00%
Change in bond yield:		-2.27%
Risk Premium/Interest Rate Relationship:	x	-0.4443
Adjustment to average risk premium:		1.01%
Average Risk Premium over Study Period:	+	3.49%
Adjusted Risk Premium:		4.50%
Avg Seasoned Baa Bond Yield:	+	5.73%
Implied Cost of Equity:		***10.23%***

RETURN ON EQUITY

Summary

Single-Stage DCF	
Range	Point Estm.
8.33%-11.78%	**9.98%**
Multistage DCF	
Range	Point Estm.
8.30%-11.06%	**9.51%**
Combined DCF	
Range	Point Estm.
8.30%-11.78%	**9.75%**

Risk Premium	
Range	Point Estm.
N/A	**10.23%**

Final Estimate

Range	9.51%-10.23%
Point Estimate	***9.75%***

Rate Case Statistics

Regulatory Research Associates (RRA) only covers rate cases in which the company has requested a rate change ...

Data Chart

Electric

DATE	STATE	RETURN ON EQUITY (%)	RETURN ON CAPITAL (%)	RATE CHANGE/ REVENUE (%)	ORIGINAL COST RATE BASE ($000)	RATE CHANGE AMOUNT ($000)	RATE CASE RETURN ORIGINAL COST (%)	COMMON EQUITY TO TOTAL CAPITAL (%)
2023	Total US	9.60	7.29	9.73	4,229,515	106,682	6.92	51.15
2022	Total US	9.54	7.36	7.70	2,367,854	55,472	6.86	50.36
2021	Total US	9.38	NA	7.84	2,958,820	75,481	6.81	50.06
2020	Total US	9.44	NA	3.46	3,471,097	33,324	6.85	49.67
2019	Total US	9.66	NA	2.80	2,758,613	26,368	6.97	49.94
2018	Total US	9.60	7.41	3.50	2,681,059	28,065	6.93	49.02
2017	Total US	9.74	7.30	4.18	3,276,094	35,008	7.18	48.90
2016	Total US	9.77	7.54	5.55	1,458,542	40,105	7.28	48.91
2015	Total US	9.84	7.40	4.36	3,542,335	37,042	7.35	49.23
2014	Total US	9.91	7.68	7.48	2,478,234	40,268	7.60	50.28
2013	Total US	10.03	7.67	6.37	2,239,363	54,567	7.66	49.25
2012	Total US	10.17	7.85	5.18	2,405,813	44,647	7.95	50.69
2011	Total US	10.29	8.13	6.40	2,193,600	46,340	8.00	48.26
2010	Total US	10.37	NA	6.78	2,409,144	63,101	8.01	48.63
2009	Total US	10.52	8.08	6.98	2,742,503	72,271	8.28	48.36
2008	Total US	10.41	8.47	7.43	2,024,952	64,163	8.21	47.94
2007	Total US	10.30	8.69	5.24	1,941,945	32,690	8.18	47.88
2006	Total US	10.32	8.94	5.98	1,540,519	33,796	8.32	48.54
2005	Total US	10.51	9.04	3.75	1,908,399	30,197	8.44	47.34
2004	Total US	10.81	8.25	5.90	2,359,333	62,286	8.71	46.96
2003	Total US	10.96	9.34	3.17	1,369,893	14,900	9.08	49.32
2002	Total US	11.21	9.26	1.95	1,057,489	(5,284)	8.70	45.94
2001	Total US	11.07	NA	4.00	889,383	23,994	8.93	47.18
2000	Total US	11.58	9.52	2.14	1,790,738	17,228	9.28	49.86
1999	Total US	10.72	NA	(1.69)	1,462,350	(31,100)	8.54	40.60
1998	Total US	11.77	9.77	(2.27)	771,889	(27,195)	10.00	46.59
1997	Total US	11.33	9.67	(0.38)	946,087	(16,572)	9.42	48.87
1996	Total US	11.40	9.55	2.26	1,794,642	2,811	9.23	42.35
1995	Total US	11.58	9.61	2.87	3,114,378	9,925	9.50	45.67
1994	Total US	11.21	9.66	2.50	2,022,709	22,156	9.33	44.79
1993	Total US	11.46	9.87	3.49	1,347,608	25,614	9.66	47.32
1992	Total US	12.09	10.26	6.01	1,669,485	42,065	10.05	44.40
1991	Total US	12.54	10.89	5.31	2,343,843	63,066	10.37	43.68
1990	Total US	12.70	10.75	3.69	1,693,478	32,202	10.40	43.12
1989	Total US	12.97	10.82	6.64	1,493,022	43,197	10.65	44.50

DATE	STATE	RETURN ON EQUITY (%)	RETURN ON CAPITAL (%)	RATE CHANGE/ REVENUE (%)	ORIGINAL COST RATE BASE ($000)	RATE CHANGE AMOUNT ($000)	RATE CASE RETURN ORIGINAL COST (%)	COMMON EQUITY TO TOTAL CAPITAL (%)
1988	Total US	12.80	10.63	5.73	2,038,992	31,065	10.58	42.73
1987	Total US	12.98	10.67	3.28	1,721,811	20,477	10.81	41.06
1986	Total US	13.99	10.79	6.82	1,662,051	32,946	11.19	41.47
1985	Total US	15.18	11.41	7.04	1,563,021	54,436	11.86	40.04
1984	Total US	15.34	11.57	7.40	1,358,180	38,495	11.86	38.74
1983	Total US	15.37	11.46	6.91	1,324,830	40,364	11.69	37.78
1982	Total US	15.79	15.85	9.31	1,121,154	47,640	11.79	37.03
1981	Total US	15.22	10.93	14.83	1,250,588	62,880	11.00	36.03
1980	Total US	14.23	9.87	14.26	516,900	39,565	10.35	36.21

Rate Case Statistics

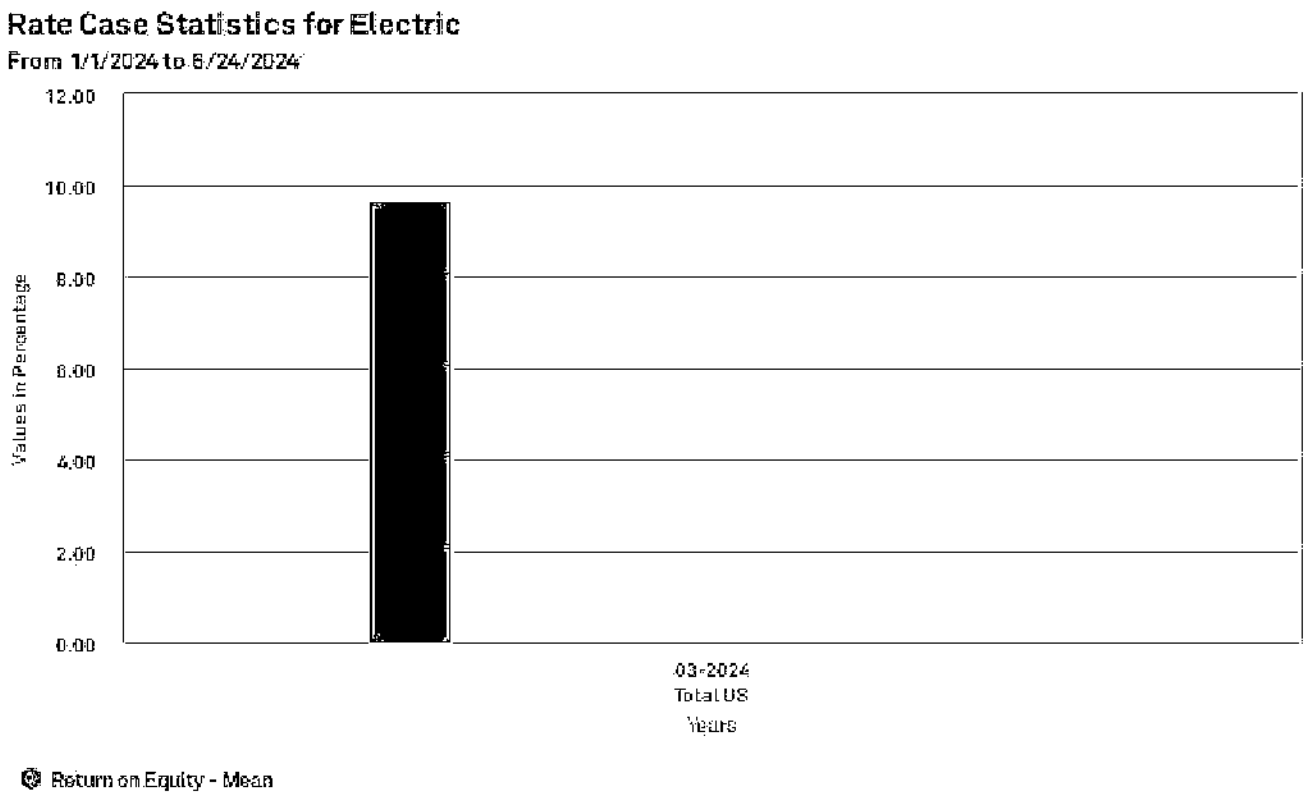
State : Total US
Frequency : Quarterly
Date Range: From: 01/01/2024 To: 06/24/2024
Service Type : Electric
Metric Type : Mean
Chart Items : Return on Capital, Return on Equity

Data

Electric

DATE	STATE	RETURN ON EQUITY (%)	RETURN ON CAPITAL (%)	RATE CHANGE/ REVENUE (%)	ORIGINAL COST RATE BASE ($000)	RATE CHANGE AMOUNT ($000)	RATE CASE RETURN ORIGINAL COST (%)	COMMON EQUITY TO TOTAL CAPITAL (%)
03/2024	Total US	9.66	NA	8.29	3,251,353	81,556	6.78	48.25

Chart



Mark Filarowicz, CFA, CPA
Public Utility Commission of Texas
List of Previous Testimony

Docket No. 55867
Application of LCRA Transmission Services Corporation for Authority to Change Rates
Testimony on Debt Service Coverage (DSC) and Rate of Return filed March 25, 2024

Docket No. 54830
Application of CenterPoint Energy Houston Electric, LLC to Amend Its Temporary Emergency Electric Energy Facilities Rider
Testimony in Support of Stipulation filed November 1, 2023

Docket No. 54634
Application of Southwestern Public Service Company for Authority to Change Rates
Testimony on Rate of Return filed August 11, 2023

Docket No. 53759
Application of Nerro Supply, LLC for Authority to Change Rates
Testimony on Rate of Return filed July 19, 2023

Docket No. 54825
Application of CenterPoint Energy Houston Electric, LLC to Amend Its Distribution Recovery Cost Factor
Testimony on Accounting Position and Revenue Requirement Model filed June 14, 2023
Testimony in Support of Stipulation filed July 14, 2023

Docket No. 52715
Application of Denton Municipal Electric to Change Rates for Wholesale Transmission Service
Testimony on Debt Service Coverage (DSC) and Rate of Return filed March 31, 2023

Docket No. 52370
Application of East Houston Utilities Inc. for Authority to Change Rates
Testimony on Rate of Return filed November 18, 2022

Docket No. 53719
Application of Entergy Texas, Inc. for Authority to Change Rates
Testimony on Rate of Return filed November 2, 2022

Docket No. 53601
Application of Oncor Electric Delivery Company LLC for Authority to Change Rates
Testimony on Accounting Position and Revenue Requirement Model filed September 2, 2022

Docket No. 53442
Application of CenterPoint Energy Houston Electric, LLC for Approval to Amend Its Distribution Cost Recovery Factor
Testimony in Support of Stipulation filed July 12, 2022

Docket No. 52354
Application of Entergy Texas, Inc. to Update Its Generation Cost Recovery Rider to Reflect the Acquisition of the Hardin County Peaking Facility
Testimony in Support of Stipulation filed April 25, 2022

Docket No. 52389
Application of Southwestern Electric Power Company for Advanced Metering System (AMS) Deployment Plan, AMS Surcharge, and Non-Standard Metering Service Fees
Testimony on Accounting Position and Rate-Case Expenses filed December 8, 2021

Docket No. 52067
Application of Entergy Texas, Inc. to Adjust its Energy Efficiency Cost Recovery Factor and Request to Establish Revised Cost Caps
Testimony in Support of Stipulation filed November 1, 2021

Docket No. 52397
Application of Southwestern Electric Power Company to Implement a Net Interim Fuel Surcharge
Testimony on Interest Rate and Calculation filed October 13, 2021

Docket No. 51381
Application of Entergy Texas, Inc. to Establish a Generation Cost Recovery Rider Related to the Montgomery County Power Station
Testimony in Support of Stipulation filed October 13, 2021

Docket No. 51802
Application of Southwestern Public Service Company for Authority to Change Rates
Testimony on Accounting Position and Revenue Requirement Model filed August 20, 2021
Errata filed October 12, 2021

Docket No. 51556
Application of GEUS to Change Rates for Wholesale Transmission Service
Testimony in Support of Stipulation filed July 13, 2021

Docket No. 51996
Application of Oncor Electric Delivery Company LLC for Approval to Amend Its Distribution Cost Recovery Factor
Testimony in Support of Stipulation filed June 18, 2021

Docket No. 51415
Application of Southwestern Electric Power Company L.L.C. for Authority to Change Rates
Testimony on Rate of Return filed April 7, 2021

Docket No. 51611
Application of Sharyland Utilities, L.L.C. for Authority to Change Rates
Testimony on Rate of Return filed March 12, 2021

Docket No. 50734
Application of Oncor Electric Delivery Company LLC for Approval to Amend Its Distribution Cost Recovery Factor
Testimony in Support of Stipulation filed June 24, 2020

Docket No. 49421
Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates
Testimony on Accounting Position and Revenue Requirement Model filed June 12, 2019

Docket No. 47588
Review of Rate Case Expenses Incurred by Southwestern Public Service Company in Docket No. 47527
Testimony on Rate-Case Expenses and in Support of Stipulation filed May 23, 2019

Docket No. 49057
Application of Entergy Texas, Inc. To Set a Transmission Cost Recovery Factor
Testimony on Accounting Position and Revenue Requirement Model filed March 25, 2019

Docket No. 48371
Entergy Texas, Inc.'s Statement of Intent and Application for Authority to Change Rates
Testimony on Rate of Return filed August 8, 2018

Docket No. 48325
Application of Oncor Electric Delivery Company LLC for Authority to Decrease Rates
Testimony on Accounting Position and Effects of the Tax Cuts and Jobs Act of 2017 filed August 8, 2018
Testimony in Support of Stipulation filed September 11, 2018
Errata filed September 13, 2018

Docket No. 47527
Application of Southwestern Public Service Company for Authority to Change Rates
Testimony on Rate of Return filed May 2, 2018

Docket No. 46328
Review of Rate Case Expenses Incurred by Southwestern Public Service Company and Municipalities in Docket No. 45524
Testimony on Rate-Case Expenses and in Support of Stipulation filed November 30, 2017

Docket No. 46831
Application of El Paso Electric Company to Change Rates
Testimony on Rate of Return filed June 30, 2017

Docket No. 47032
Application of CenterPoint Houston Electric, LLC for Approval to Amend Its Distribution Cost Recovery Factor
Testimony on Accounting Position, DCRF Revenue Requirement, and Rate-Case Expenses filed June 7, 2017

Docket No. 45524
Application of Southwestern Public Service Company for Authority to Change Rates
Testimony on Accounting Position and Cost of Service filed August 23, 2016
Testimony in Support of Stipulation filed December 8, 2016

Docket No. 46014
Application of CenterPoint Energy Houston Electric, LLC for Approval of an Adjustment to Its Energy Efficiency Cost Recovery Factor
Testimony on Accounting Position filed August 8, 2016

Docket No. 45475
Review of Rate Case Expenses Incurred by El Paso Electric Company and Municipalities in Docket No. 44941
Testimony on Rate-Case Expenses and in Support of Stipulation filed July 21, 2016

Docket No. 44941
Application of El Paso Electric Company to Change Rates
Testimony on Rate-Case Expenses and in Support of Stipulation filed July 21, 2016

Docket No. 45084
Application of Entergy Texas, Inc. for Approval of a Transmission Cost Recovery Factor
Testimony on Accounting Position and TCRF Revenue Requirement filed November 24, 2015
Errata filed December 10, 2015

Docket No. 45083
Application of Entergy Texas, Inc. for Approval to Amend Its Distribution Cost Recovery Factor
Testimony on Accounting Position and DCRF Revenue Requirement filed October 23, 2015

The following files are not convertible:

56211 - Staff Rate-of-Return Model.xlsx

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Contact centralrecords@puc.texas.gov if you have any questions.