Filing Receipt

Filing Date - 2024-06-19 02:07:31 PM

Control Number - 56211

Item Number - 341

CONFIDENTIAL INFORMATION HAS BEEN REDACTED

SOAH DOCKET NO. 473-24-13232
PUC DOCKET NO. 56211

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

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Texas Industrial Energy Consumers

June 19, 2024

BRUBAKER & ASSOCIATES, INC.

#11646

SOAH DOCKET NO. 473-24-13232
PUC DOCKET NO. 56211

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

Filename: MPG_DT

Page

Exhibit MPG-2: Valuation Metrics
Exhibit MPG-3: Revenue Impact
Exhibit MPG-4: Proxy Group
Exhibit MPG-5: Consensus Analysts' Growth Rates
Exhibit MPG-6: Constant Growth DCF Model (Consensus Analysts' Growth Rates)
Exhibit MPG-7: Payout Ratios
Exhibit MPG-8: Sustainable Growth Rate
Exhibit MPG-9: Constant Growth DCF Model (Sustainable Growth Rate)
Exhibit MPG-10: Electricity Sales Are Linked to U.S. Economic Growth
Exhibit MPG-11: Multi-Stage Growth DCF Model
Exhibit MPG-12: Common Stock Market/Book Ratio
Exhibit MPG-13: Equity Risk Premium - Treasury Bond
Exhibit MPG-14: Equity Risk Premium - Utility Bond
Exhibit MPG-15: Bond Yield Spreads
Exhibit MPG-16: Treasury and Utility Bond Yields
Exhibit MPG-17: Betas
Exhibit MPG-18 CAPM Return
Exhibit MPG-19: Standard & Poor's Credit Metrics
Exhibit MPG-20: Revised Bulkley Multi-Stage Growth DCF Model

SOAH DOCKET NO. 473-24-13232
PUC DOCKET NO. 56211

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

Affidavit of Michael P. Gorman

State of Missouri)
) **SS**
County of Saint Louis)

Michael P. Gorman, being first duly sworn, on his oath states:

1. My name is Michael P. Gorman. I am a Managing Principal with Brubaker & Associates, Inc., 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017. We have been retained by Texas Industrial Energy Consumers to testify in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my direct testimony and exhibits which were prepared in written form for introduction into evidence in SOAH Docket No. 473-24-13232, Public Utility Commission of Texas Docket No. 56211.

3. I hereby swear and affirm that the testimony and exhibits are true and correct and that they show the matters and things that they purport to show.

Michael P. Gorman

Subscribed and sworn to before me this 19th day of June, 2024.

SALLY D. WILHELMS
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Aug. 5, 2024
Commission # 20076050

Notary Public

SOAH DOCKET NO. 473-24-13232
PUC DOCKET NO. 56211

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

Direct Testimony of Michael P. Gorman

I. INTRODUCTION AND SUMMARY

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a Managing Principal of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to this testimony.

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A My testimony will address CenterPoint Energy Houston Electric, LLC's ("CEHE" or "Company") overall rate of return including return on equity, embedded debt cost, and ratemaking capital structure.

Q DOES THE FACT THAT YOU DID NOT ADDRESS EVERY ISSUE RAISED IN CEHE'S TESTIMONY MEAN THAT YOU AGREE WITH CEHE'S TESTIMONY ON THOSE ISSUES?

A No. It merely reflects that I chose not to address all those issues in my testimony. It should not be read as an endorsement of, or agreement with, CEHE's position on such issues.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS.

A I recommend the Public Utility Commission of Texas ("PUCT" or "Commission") approve an overall rate of return of 6.50% as developed on Exhibit MPG-1. This overall rate of return reflects the following components:

1. A return on common equity within my recommended range of 9.30% to 9.70%, with a midpoint of 9.50%.

2. A ratemaking capital structure with a common equity ratio of 42.5%. The Company's proposal to increase its ratemaking common equity ratio from 42.50% to 45.00% is not cost justified and should be rejected. The currently authorized common equity ratio of 42.5% has allowed CEHE to maintain its credit rating and financial integrity at reasonable costs to customers and therefore it fairly balances the interests of all stakeholders.

My recommended rate of return will fairly compensate the Company for its current market cost of common equity and preserve its credit rating as well as its access to capital at reasonable terms. My recommended rate of return will also mitigate the Company's claimed revenue deficiency in this proceeding while providing a return that fairly balances the interests of customers and shareholders.

Finally, I also respond to CEHE witness Ms. Ann E. Bulkley's return on equity recommendation. Ms. Bulkley recommends an equity return in the range of 10.00% to 11.00%, with a point estimate of 10.60%. However, taking into account the affordability

concern, the Company is requesting a return on equity of 10.4%.[1] The requested return on equity of 10.40% is excessive and would not result in just and reasonable rates. Nor does it prioritize rate affordability for CEHE's customers.

II. RATE OF RETURN MARKET EVIDENCE

Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.

A In this section, I will provide observable market evidence to assess the state of the financial markets, credit metrics to assess the reasonableness of rate of return positions, and a detailed analysis to demonstrate that my recommended rate of return will support CEHE's financial integrity and access to capital. I also comment on market-based models to estimate the current market-required rate of return investors demand to assume the risk of an investment similar to CEHE's.

II.A. Utility Industry Authorized Returns on Equity, Access to Capital, and Credit Strength

Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN AUTHORIZED RETURNS ON EQUITY FOR REGULATED UTILITIES.

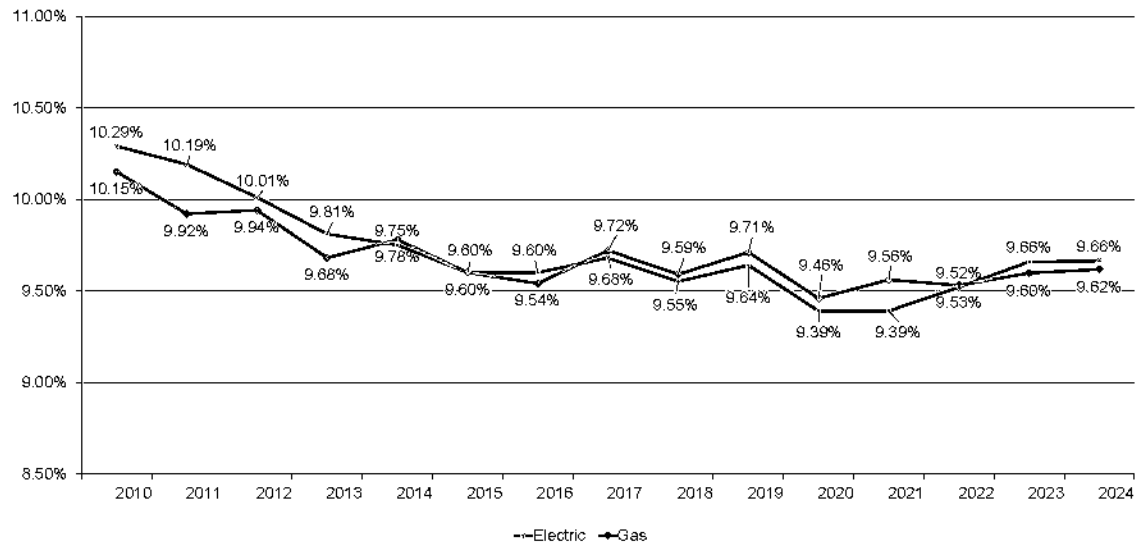
A Authorized returns on equity are an important part of how utilities produce revenues and cash flows adequate to support their credit standing and maintain their financial integrity, which supports their access to capital under reasonable terms and prices. Observable data, including data on industry authorized returns on equity, trends and outlooks on credit standing, and the ability of utilities to attract capital to fund large investments, provides clear evidence that industry authorized returns on equity have been judged by market participants to be fair and reasonable. With this as background,

[1] Bulkley Direct Testimony at 7.

it is significant to observe that average industry authorized returns on equity for regulated utilities have ranged from 9.39% to 9.78% for the period from 2014 through 2023 and, that between 2020 and 2023, authorized returns on equity have averaged around 9.50%. These returns are summarized in Figure 1 below.

FIGURE 1

**Authorized Returns on Equity*
(Exclude Limited Issue Riders)**



ROE Distributions[1/2]

Electric Utilities	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<= Average	51.7%	55.0%	51.0%	50.0%	56.3%	56.5%	53.1%	59.5%	47.4%	45.5%	33.3%	31.4%	53.1%	58.3%	37.5%
> Average	48.3%	45.0%	49.0%	50.0%	43.8%	43.5%	46.9%	40.5%	52.6%	54.5%	66.7%	68.6%	46.9%	41.7%	62.5%
Gas Utilities															
<= Average	56.4%	31.3%	45.7%	47.6%	50.0%	43.8%	53.8%	70.8%	47.5%	51.5%	51.4%	46.5%	48.5%	48.8%	33.3%
> Average	43.6%	68.8%	54.3%	52.4%	50.0%	56.3%	46.2%	29.2%	52.5%	48.5%	48.6%	53.5%	51.5%	51.2%	66.7%

Source and Notes:

[1] *S&P Global Market Intelligence*, RRA Regulatory Focus, Major Rate Case Decisions -- January - March 2024, April 19, 2024, p. 3.

[2] Download from S&P Global Market Intelligence, April 29, 2024.

* Returns exclude Limited Issue Rider Decisions.

* RRA excludes the 2017 Alaska ENSTAR decision from its Industry Average.

Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT CAPITAL EXPENDITURE PROGRAMS?

A Yes. In Regulatory Research Associates' ("RRA") April 2, 2024 Utility Capital Expenditures report, *RRA Financial Focus*, a division of S&P Global Market Intelligence, made several relevant comments about utility investments generally:

- Projected 2024 capital expenditure [("capex")] for the 45 energy utilities included in the RRA representative sample of publicly traded, US-based utilities is $184 billion — an upswell of nearly 11% from the group's $166 billion of actual spending in 2023. The increase is largely driven by federal legislation enacted in 2021 and 2022 supporting infrastructure investment.

- Across the small investor-owned water utility industry, total capex is forecast to increase by more than 13% in 2024 to roughly $5.5 billion. This follows a growth surge of more than 13% in 2023.

- Energy utility capex in 2023 marked a record high, about 15.5% above the $144 billion invested in 2022. Investment in 2021 was likely negatively impacted by multiple supply chain issues associated with the COVID-19 pandemic; the $131 billion spent that year was only incrementally higher than the 2020 investment level of $129 billion.

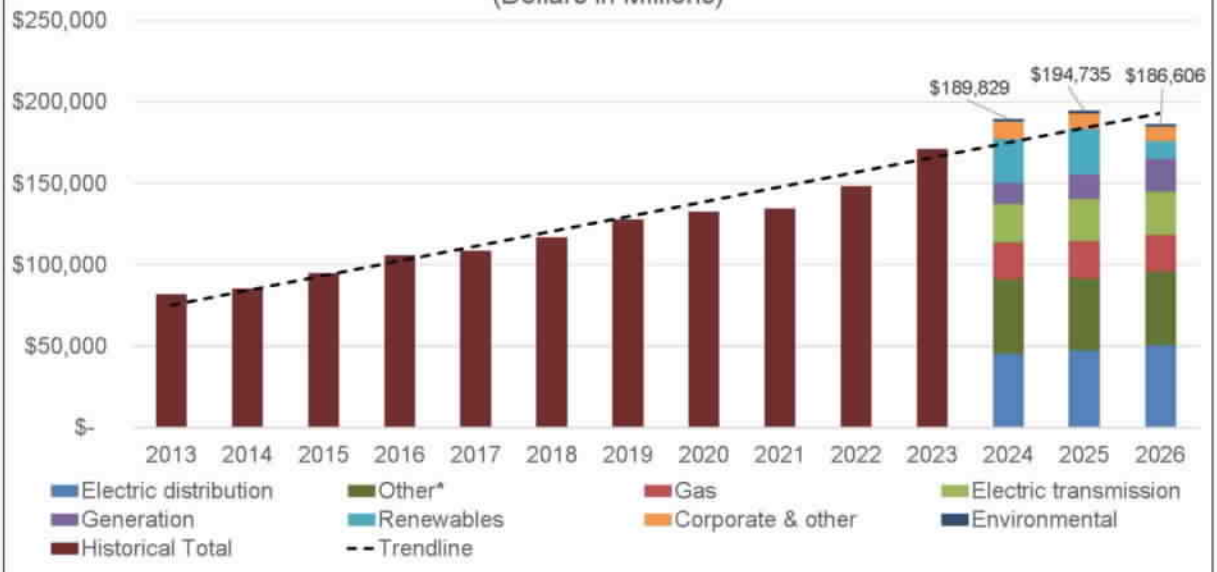
- Aggregated energy utility capex estimates for both 2024 and 2025 indicate successively higher spending levels, reaching $184 billion and $191 billion, respectively. Spending expectations for 2024 and beyond are likely to increase as the companies' plans for future projects continue to solidify around the new federal legislation supporting infrastructure investment. [2]

As shown in Figure 2 below, capital expenditures for the regulated utilities have increased considerably over the period 2023 into 2024, and the forecasted capital expenditures remain elevated through the end of 2026.

[2] *S&P Global Market Intelligence, RRA Financial Focus*: "Utility capex primed for profusion in 2024 and beyond," April 2, 2024, at 1.

FIGURE 2

Utility Capital Expenditures
(Dollars in Millions)



*Other category consists of utilities that do not report capital expenditures by category: Avangrid, Hawaiian Electric, PG&E and Portland General Electric.
Source: *S&P Global Market Intelligence, RRA Financial Focus*, Utility Capital Expenditures Update, March 27, 2024, Tables 1 and 3.

As outlined in Figure 2 above, and in the comments made by *RRA S&P Global Market Intelligence*, capital investments for the utility industry continue to stay at elevated levels, and these capital expenditures are expected to fuel utilities' profit growth into the foreseeable future. This is clear evidence that the capital investments are enhancing shareholder value and are attracting both equity and debt capital to the utility industry in a manner that allows for funding these elevated capital investments. While capital markets embrace these profit-driven capital investments, regulatory commissions also must be careful to maintain reasonable prices and tariff terms and conditions to protect customers' need for reliable utility service at reasonable rates. If this is not done, utility rates will expand beyond the ability of customers to pay, resulting in revenue constraints for utilities, which will impact their financial integrity.

Q HAVE REGULATED UTILITY EQUITY SECURITIES' VALUATIONS SUPPORTED ACCESS TO EQUITY CAPITAL?

A Yes. Utility valuation metrics continue to demonstrate that utilities can sell new stock at robust market prices, which illustrates that utilities can access equity capital under reasonable terms and conditions, and at relatively low cost.

As shown on my Exhibit MPG-2, utility valuation metrics show robust valuation of utility securities more recently compared to the historical period stretching back to 2002. Specifically, *The Value Line Investment Survey* ("*Value Line*") tracks and projects various valuation metrics related to regulated utility securities, as well as certain non-regulated companies followed by *Value Line*. These valuation metrics are considered by market participants in assessing the investment risk characteristics of individual company stocks and industries and are used by market participants to derive their required rates of return for making investments. All of these valuation metrics for utility stocks indicate robust valuations of utility stocks, which in turn support my finding that utilities' cost of capital is low by historical comparison and utilities are producing competitive returns.

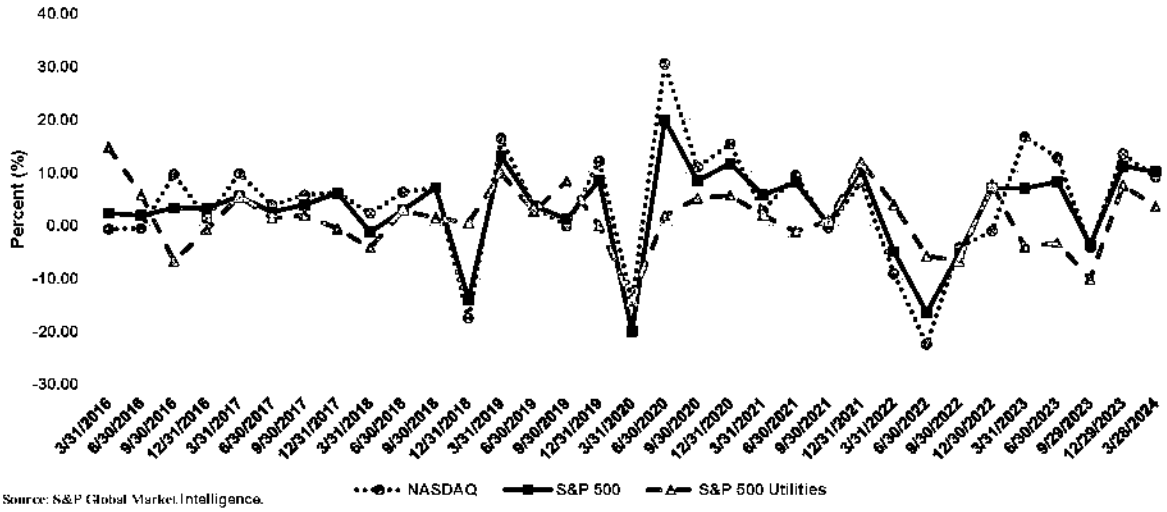
For example, I show a *Value Line* electric utility industry price-to-earnings ratio of 15.46x aligns with the 22-year average price-to-earnings ratio. (Exhibit MPG-2, page.1). A consistently strong price-to-earnings ratio indicates stock price valuations are stable, which supports utilities' access to external equity markets.

The market price-to-cash flow for electric utilities is currently 8.03x and the market-to-book ratio is 1.72x. These valuation metrics align with the 22-year average valuation metrics, and indicate utilities continue to have access to equity capital markets.

Q PLEASE DESCRIBE GENERALLY UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

A Figure 3 below shows the utility stock price performance compared to the overall market.

FIGURE 3
Quarterly Price Returns



Source: S&P Global Market Intelligence.

Utility stocks have not exhibited the higher volatility of the S&P 500 and have maintained strong valuation relative to overall market performance.

Q HAVE REGULATED UTILITIES MAINTAINED INVESTMENT GRADE CREDIT STRENGTH AND FINANCIAL INTEGRITY?

A Yes. Credit ratings are reasonable assessments of the utility industry's financial integrity, because they indicate the utility's credit strength, which, in turn provides strong evidence of the utility's ability to attract capital necessary to make infrastructure investments under reasonable terms and prices. Trends in credit ratings are an indication of whether the regulatory decisions have supported the utilities' ability to generate adequate revenue to recover their costs, produce adequate cash flows, and

maintain strong credit strength. The primary drivers in these regulatory decisions are the commissions' awarded returns on equity and development of depreciation rates.

As shown in Table 1 below, electric utilities' credit standing has remained very robust through the Tax Cuts and Jobs Act (2017) changes and impacts on cash flow starting around 2018, through the COVID-19 pandemic, and into the present. As shown below in Table 1, from approximately 2016 through the latest data for 2024, over 80% of the regulated electric utility industry has a bond rating of BBB+ or stronger. The distribution in 2009 is also shown for reference to earlier periods.

TABLE 1

S&P Ratings by Category
Electric Utility Subsidiaries

Description	2009	2016	2017	2018	2019	2020	2021	2022	2023	2024
A or higher	12%	10%	10%	8%	14%	14%	10%	10%	11%	13%
A-	18%	43%	52%	54%	54%	53%	37%	37%	37%	33%
BBB+	23%	32%	21%	22%	18%	19%	35%	36%	37%	42%
BBB	36%	4%	7%	13%	12%	3%	16%	16%	15%	12%
BBB-	9%	11%	11%	2%	1%	1%	0%	0%	0%	0%
Below BBB-	2%	0%	0%	0%	0%	10%	1%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: S&P CAPITAL IQ and Market Intelligence, downloaded 5/17/24.
Note: Subsidiary ratings used.

Q HOW SHOULD THE COMMISSION USE THIS MARKET INFORMATION IN ASSESSING A FAIR RETURN FOR CEHE?

A Observable market evidence is quite clear that capital market costs are near historically low levels. Even as authorized returns on equity have fallen into the mid-9% range, utilities continue to have access to large amounts of external capital while still funding large capital programs. Furthermore, utilities' investment-grade credit ratings are stable and have improved due, in part, to supportive regulatory treatment. The

Commission should carefully weigh all this important observable market evidence in assessing a fair return on equity for CEHE.

II.B. Federal Reserve's Impact on Cost of Capital

Q ARE THE MONETARY POLICY DECISIONS AND ACTIONS OF THE FEDERAL RESERVE, AND OF THE FEDERAL RESERVE SYSTEM'S FEDERAL OPEN MARKET COMMITTEE ("FOMC"), KNOWN TO MARKET PARTICIPANTS, AND IS IT REASONABLE TO BELIEVE THOSE DECISIONS AND ACTIONS ARE REFLECTED IN THE MARKET'S VALUATION OF BOTH DEBT AND EQUITY SECURITIES?

A Yes. The Federal Reserve has been transparent on its efforts to support the economy to achieve maximum employment, and to manage long-term inflation to around a 2% level. The Federal Reserve, in a May 1, 2024 press release, noted that economic activity has been expanding at a solid pace, while job gains have remained strong and the unemployment rate has remained low. Meanwhile, inflation has eased over the past year but remains elevated. The Federal Reserve noted that it is highly attentive to inflation risks.[3]

With this as a backdrop, the Federal Reserve announced it decided to maintain the target range of the Federal Funds Rate to 5.25% to 5.50%, and that it will continue to closely monitor the economic activity before making any adjustments needed to achieve the target 2% inflation rate. The Federal Reserve also stated that beginning in June it will slow the pace of reduction of its holdings of Treasury securities, agency debt securities and agency mortgage-backed securities from $60 billion to $25 billion. The Committee will maintain the monthly redemption cap on agency debt and agency

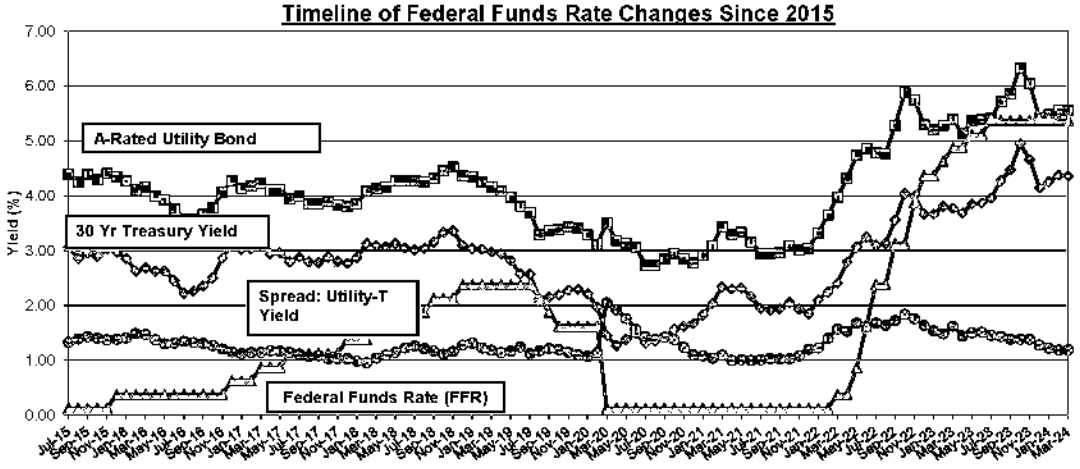
[3]Federal Reserve Press Release, May 1, 2024.

mortgage-backed securities at $35 billion and will reinvest any principal payments in excess of this cap into Treasury securities. In its May 1, 2024 press release, the Federal Reserve reiterated its strong commitment to returning inflation to 2%.[4]

The trend in the Federal Reserve's monetary actions on the Federal Funds Rate is shown below in Figure 4.

FIGURE 4

Timeline of Federal Funds Rate Changes Since 2015



Fed FFR Actions:

1	December 2015	0.25	→	0.50	14	March 2020	0.00	→	0.25
2	December 2016	0.50	-	0.75	15	March 2022	0.25	-	0.50
3	March 2017	0.75	→	1.00	16	May 2022	0.75	→	1.00
4	June 2017	1.00	→	1.25	17	June 2022	1.50	→	1.75
5	December 2017	1.25	-	1.50	18	July 2022	2.25	-	2.50
6	March 2018	1.50	-	1.75	19	September 2022	3.00	-	3.25
7	June 2018	1.75	→	2.00	20	November 2022	3.75	→	4.00
8	September 2018	2.00	-	2.25	21	December 2022	4.25	-	4.50
9	December 2018	2.25	-	2.50	22	February 2023	4.50	-	4.75
10	August 2019	2.00	→	2.25	23	March 2023	4.75	→	5.00
11	September 2019	1.75	-	2.00	24	May 2023	5.00	-	5.25
12	October 2019	1.50	-	1.75	25	July 2023	5.25	-	5.50
13	March 2020	1.00	→	1.25					

Sources:
Federal Reserve Bank of New York, https://apps.newyorkfed.org/markets/autorates/fed-funds-search-page
Board of Governors of the Federal Reserve System, https://www.federalreserve.gov/datadownload/
Moody's Credit Trends, https://credittrends.moodys.com/

As shown in Figure 4, the Federal Funds Rate, currently at a 5.25% to 5.50% range, resulted in a higher Federal Funds Rate than the rate prior to the economic effects of the worldwide pandemic starting around March/April of 2020.

[4] *Id.*

Q DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE INTEREST RATES REFLECT THE FEDERAL RESERVE'S CURRENT MONETARY POLICY?

A Yes. In its most recent report, *Blue Chip Financial Forecasts* ("*BCFF*") anticipates the first cut of target rate to occur in September, which is later than prior expectations due to the recent rebound of inflation. However, the BCFF points out that even though the current rates have increased, because of the delayed target rate cut and the increase of inflation, it will take some time for the rates to decline because the impact of the prior policy tightening is yet to be completely felt.[5]

These consensus economists' outlooks and projections of short-term Federal Funds Rate levels, long-term Treasury bond 30-year maturities, and of the U.S. economic outlook include an expectation that inflation and interest rates will begin to moderate and decline toward mid-2024, as illustrated in Table 2 below.

[5] *Blue Chip Financial Forecasts*, May 1, 2024.

TABLE 2

Blue Chip Financial Forecasts
Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

Publication Date	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023	1Q 2024	2Q 2024	3Q 2024	4Q 2024	1Q 2025	2Q 2025	3Q 2025
Federal Funds Rate												
Mar-23	**3.7**	4.7	5.1	5.1	5.0	4.7	4.2					
Apr-23		4.5	5.0	5.1	4.9	4.6	4.2	3.8				
May-23		4.5	5.0	5.1	5.0	4.7	4.2	3.8				
Jun-23		**4.5**	5.0	5.1	5.0	4.6	4.2	3.9				
Jul-23			5.0	5.3	5.2	5.0	4.6	4.3	3.9			
Aug-23			5.0	5.4	5.4	5.2	4.9	4.4	4.0			
Sep-23			**5.0**	5.3	5.4	5.3	5.0	4.6	4.2			
Oct-23				5.3	5.4	5.4	5.1	4.7	4.3	4.0		
Nov-23				5.3	5.4	5.4	5.2	4.9	4.5	4.1		
Dec-23				**5.3**	5.4	5.4	5.2	4.9	4.6	4.2		
Jan-24					5.3	5.3	5.1	4.8	4.4	4.1	3.8	
Feb-24					5.3	5.3	5.1	4.7	4.4	4.1	3.8	
Mar-24					**5.3**	5.4	5.2	4.9	4.5	4.2	3.8	
Apr-24						5.3	5.2	5.0	4.6	4.2	3.9	3.7
May-24						5.3	5.4	5.2	4.9	4.6	4.3	4.0
T-Bond, 30 yr.												
Mar-23	**3.9**	3.9	4.0	3.9	3.9	3.8	3.8					
Apr-23		3.8	3.9	3.8	3.8	3.8	3.8	3.7				
May-23		3.7	3.8	3.8	3.8	3.8	3.7	3.7				
Jun-23		**3.7**	3.8	3.8	3.8	3.8	3.8	3.7				
Jul-23			3.8	3.9	3.9	3.9	3.8	3.8	3.8			
Aug-23			3.8	4.0	3.9	4.0	3.9	3.9	3.8			
Sep-23			**3.8**	4.1	4.2	4.1	4.0	4.0	3.9			
Oct-23				4.2	4.4	4.3	4.2	4.2	4.1	4.0		
Nov-23				4.2	4.8	4.7	4.5	4.5	4.3	4.2		
Dec-23				**4.2**	4.8	4.7	4.5	4.5	4.4	4.3		
Jan-24					4.6	4.3	4.3	4.2	4.1	4.0	4.0	
Feb-24					4.6	4.3	4.2	4.2	4.1	4.0	4.0	
Mar-24					**4.6**	4.4	4.3	4.2	4.2	4.1	4.1	
Apr-24						4.3	4.3	4.2	4.2	4.1	4.1	4.0
May-24						4.3	4.6	4.5	4.4	4.3	4.2	4.2
GDP Price Index												
Mar-23	**3.9**	3.2	2.8	2.6	2.5	2.5	2.3					
Apr-23		3.2	3.2	2.9	2.7	2.5	2.3	2.2				
May-23		4.0	3.2	2.9	2.7	2.5	2.3	2.2				
Jun-23		**4.2**	3.3	2.8	2.7	2.5	2.5	2.2				
Jul-23			3.3	2.9	2.8	2.5	2.4	2.2	2.2			
Aug-23			2.2	2.7	2.6	2.5	2.3	2.3	2.3			
Sep-23			**2.0**	2.7	2.6	2.4	2.3	2.2	2.2			
Oct-23				2.7	2.7	2.4	2.2	2.2	2.2	2.2		
Nov-23				3.5	2.7	2.4	2.3	2.2	2.2	2.3		
Dec-23				**3.6**	2.7	2.4	2.3	2.2	2.2	2.2		
Jan-24					2.7	2.3	2.3	2.3	2.2	2.2	2.1	
Feb-24					1.5	2.2	2.2	2.3	2.2	2.2	2.1	
Mar-24					**1.6**	2.2	2.3	2.2	2.2	2.1	2.1	
Apr-24						2.2	2.4	2.3	2.2	2.2	2.1	2.2
May-24						3.1	2.7	2.4	2.3	2.3	2.2	2.2

Source and Note:
Blue Chip Financial Forecasts, Jan 2022 through May 2024.
Actual Yields in Bold.

Moreover, the current outlook for long-term interest rates in the intermediate to longer term is also impacted by the current Federal Reserve actions and the expectation that eventually the Federal Reserve's monetary actions will return to more normal levels. Long-term interest rate projections are illustrated in Table 3 below.

TABLE 3

30-Year Treasury Bond Yield Actual Vs. Projection

Description	Actual	2-Year Projected*	5- to 10-Year Projected
2019			
Q1	3.01%	3.50%	
Q2	2.78%	3.17%	3.6% - 3.8%
Q3	2.30%	2.70%	
Q4	2.30%	2.50%	3.2% - 3.7%
2020			
Q1	1.88%	2.57%	
Q2	1.38%	1.90%	3.0% - 3.8%
Q3	1.36%	1.87%	
Q4	1.62%	1.97%	2.8% - 3.6%
2021			
Q1	2.07%	2.23%	
Q2	2.26%	2.77%	3.5% - 3.9%
Q3	1.93%	2.63%	
Q4	1.95%	2.70%	3.4% - 3.8%
2022			
Q1	2.25%	2.87%	
Q2	3.04%	3.47%	3.8% - 3.9%
Q3	3.26%	3.63%	
Q4	3.90%	3.87%	3.9% - 4.0%
2023			
Q1	3.74%	3.77%	
Q2	3.80%	3.70%	3.8% - 3.9%
Q3	4.24%	3.83%	
Q4	4.58%	4.17%	4.1% - 4.2%

Source and Note:
Blue Chip Financial Forecasts, January 2019 through March 2024.
*Average of all 3 reports in Quarter.

II.C. Utility Industry Credit Outlook

Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED UTILITIES.

A In Standard & Poor's ("S&P") January 9, 2024 *Industry Credit Outlook 2024* industry credit outlook, it comments that North American regulated utilities' credit quality remains under pressure. In that report, it makes the following points:

1. Credit quality remains pressured due to natural disaster risks to infrastructure, and record levels of capital spending;

2. S&P's outlook reflects its expectation of continued large capital spending, with consistent access to capital markets supported by continued supportive utility regulatory treatment;

3. The expectation that utilities will manage credit metrics by funding large capital spending with balanced amounts of debt and equity funding; and

4. Managing regulatory risk is highlighted during the large capital spending period because utilities must prioritize rate affordability and the impacts on customer bills through this period.

S&P notes that around 56% of the industry has stable credit rating outlooks, and the industry median credit rating remains in the BBB+ category. S&P projects core industry credit metrics for Debt/EBITDA[6] to remain relatively stable through the forecast period, around 4.5x. FFO/Debt[7] projections trend between 16% and 17% through 2025, and S&P expects a recovery of depressed operating cash flow from the 2020-2021 period which will support large capital expenditure programs.

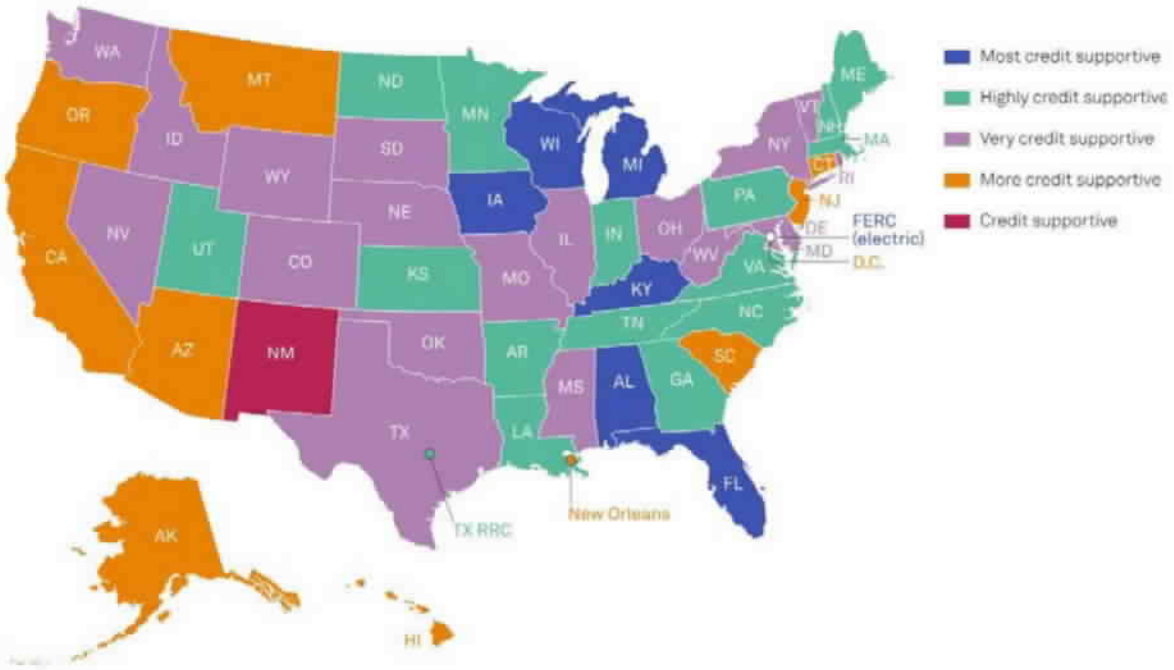
S&P emphasizes the importance of effective utility management of regulatory risk and concludes that "To manage regulatory risk, the industry must maintain the affordability of the customer bill."[8] From that standpoint, the credit rating agency provides a clear description of its assessment of regulatory treatment

[6] Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA").
[7] Funds From Operations ("FFO").
[8] *S&P Global Ratings Industry Credit Outlook 2024*: "North American Regulated Utilities," January 9, 2024, at 8.

of utilities across the various jurisdictions. S&P's regulatory risk rating of U.S. jurisdictions is copied below.

FIGURE 5

Regulatory Assessment by State[9]
(as of November 2023)



Source: S&P Global Ratings.

Q PLEASE OUTLINE CREDIT AGENCIES' STATED CONCERN ABOUT RATE AFFORDABILITY AS A CREDIT RISK TO UTILITIES.

A Credit rating agencies have been emphasizing rate affordability, maintaining adequate financial coverages of debt obligations, and supporting utilities' overall investment grade bond ratings.

[9] *Id.* at 9.

In a recent industry report, Moody's Investors Service ("Moody's") explained that the regulated electric and gas utilities' outlook remains "Negative" largely due to increased pricing pressures on customers. Moody's stated that it changed its outlook from "Positive" to "Negative" due to the following:

> We have revised our outlook on the US regulated utilities sector to negative from stable. We changed the outlook because of increasingly challenging business and financial conditions stemming from higher natural gas prices, inflation and rising interest rates. These developments raise residential customer affordability issues, increasing the level of uncertainty with regard to the timely recovery of costs for fuel and purchased power, as well as for rate cases more broadly.[10]

Also, in the January report discussed above, S&P specifically mentioned commodity price volatility, in combination with significant increases in capital investments, driving utility rate increases which may strain affordability concerns.[11]

Finally, Fitch Ratings ("Fitch") opined that the regulated electric and gas utilities' outlook is deteriorating due to elevated capex that put pressure on credit metrics. Fitch also notes the bill affordability concerns for ratepayers, and regulators' ability to balance the rate requests with increasing customer bills.

Specifically, Fitch states:

> Authorized ROEs could prove to be sticky despite an increase in cost of capital. Higher weather-normalized retail electricity sales, driven by datacenter growth and onshoring of manufacturing activities, and tax transferability provisions of the Inflation Reduction Act could somewhat offset headwinds to utilities. Ongoing management actions to sell assets and issue equity, in some cases, is supportive of parent companies' ratings. Within Fitch's coverage, 90% of ratings hold Stable Rating Outlooks. We expect limited rating movement in 2024. The number of upgrades in 2023 so far exceeds the number of

[10] *Moody's Investors Service Outlook*: "Regulated Electric and Gas Utilities – US 2023 outlook negative due to higher natural gas prices, inflation and rising interest rates," November 10, 2022 at 1. (emphasis added).

[11] *S&P Global Ratings*: "Industry Credit Outlook 2024: North America Regulated Utilities," January 9, 2024, at 8.

downgrades, and is driven by positive rating actions on several parent holding companies and their regulated subsidiaries.[12]

As outlined by Moody's, S&P and Fitch above, credit analysts are focusing on rate affordability as an important factor needed to support strong credit standing. Customers must be able to afford to pay their utility bills in order for utilities to maintain their financial integrity and strong investment grade credit standing. For this reason, the Commission should carefully assess the reasonableness of cost of service in this proceeding, including an appropriate overall rate of return necessitated by a reasonably cost-effective balanced ratemaking capital structure, and a return on equity that represents fair compensation but also maintains competitive, just and reasonable rates.

II.D. CEHE's Investment Risk

Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF CEHE's INVESTMENT RISK.

A The market's assessment of CEHE's investment risk is described by credit rating analysts' reports. CEHE witness Ms. Reichert testified that CEHE's credit ratings from Moody's, S&P, and Fitch are Baa1, BBB+, and BBB+, respectively.[13]

On March 19, 2024, the credit outlook from S&P was revised from "Stable" to "Negative" for CenterPoint Energy Inc. ("CNP") and its affiliates. The change in outlook for CNP's consolidated financial measures have been below S&P's downgrade threshold. S&P also lowered CNP's business risk profile from "Significant" to "Aggressive." CNP's leverage is greater than that of CEHE with a total long-term capital common equity ratio of 36.5% in 2024 and 37.5%, in 2025, which equates to a debt

[12] *Fitch Ratings.* "North American Utilities, Power & Gas Outlook 2024," December 6, 2023 at 1. (emphasis added)

[13] Reichert Direct Testimony at 7.

ratio of about 63%.[14] CEHE's debt ratio has been approximately 57%, or 600 basis points lower, meaning that CEHE has less leverage risk than its parent company.

Specifically, S&P states:

> **Rating Action Overview**
>
> Houston-based CenterPoint Energy Inc.'s (CNP) consolidated 2023 financial measures have remained consistently below our downgrade threshold for the 'BBB+' rating. Looking ahead, we expect the company's financial performance will remain pressured due to its robust capital spending program.
>
> We revised the outlook to negative from stable and affirmed our ratings on CNP, including the 'BBB+' issuer credit rating. We also affirmed our ratings on its rated subsidiaries CenterPoint Energy Houston Electric LLC (CEHE), CenterPoint Energy Resources Corp. (CERC), Southern Indiana Gas and Electric Co. (SIGECO), Vectren LLC, and Indiana Gas Co. Inc. (IGC).[15]

S&P notes that potential credit rating downside and upside for CEHE are driven by credit rating changes at its parent company, CNP:

> **Outlook**
>
> The negative outlook on CEHE reflects our negative outlook on its parent CNP, reflecting CNP's persistently weak financial measures for the current rating and the probability that they will remain below our downgrade threshold in 2024. Our base case forecast incorporates consolidated FFO to debt that averages about 12% over 2024-2026.
>
> **Downside scenario**
>
> We could lower our ratings on CNP and its subsidiaries, including CEHE, over the next 12 months if CNP's consolidated financial measures weaken due to higher-than-expected leverage stemming from elevated capital spending or weaker-than-expected cash flow from pending rate cases, resulting in FFO to debt consistently below 12%.
>
> **Upside scenario**
>
> We could affirm our ratings and revise the outlook to stable on CNP and its subsidiaries over the next 12 months if we expect the company's consolidated FFO to debt will be consistently and comfortably above 12%, without any increase to business risk from adverse regulatory

[14] *The Value Line Investment Survey*, Center Point Energy, CNP, June 7, 2024.

[15] *S&P Global Ratings*: "CenterPoint Energy Inc. And Subsidiaries' Outlooks Revised To Negative On Weak Financial Measures; Ratings Affirmed," March 19, 2024.

outcomes. This could be due to additional equity support for growth initiatives or stronger cash flow.[16]

For CEHE, S&P still notes its credit strengths including a low-risk electric transmission and distribution utility, constructive regulatory framework in Texas, and a large base of stable electric customers.

Q WHAT DOES MOODY'S STATE ABOUT CEHE'S CREDIT RATING OUTLOOK?

A Like S&P, Moody's notes CEHE's large capital expenditure program, and credit supportive regulatory treatment for low risk Texas utilities. Specifically, Moody's states:

[redacted]

[16] *S&P Global Ratings:* "CenterPoint Energy Houston Electric LLC," April 12, 2024.

[redacted][17]

II.E. CEHE's Proposed Capital Structure

Q WHAT IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE?

A CEHE witness Ms. Jacqueline Richert sponsors the Company's proposed capital structure, which is shown below in Table 4.

TABLE 4

CEHE's Proposed Capital Structure

Description	Weight
Long-Term Debt	55.10%
Common Equity	44.90%
Total Regulatory Capital Structure	100.00%

Sources: Hollis Direct Testimony at 29 and Schedule II-C-2.1.

CEHE witness Ms. Richert notes that the Company's authorized capital structure in its last rate case in 2019 (Docket No. 49421) was composed of 42.5% equity and 57.5% debt but states that the Company proposes to change the capital structure in this case and increases the common equity ratio to 44.90%, which she believes is necessary to improve CEHE's credit rating.[18] Ms. Richert testifies that a capital structure with an increased common equity ratio will better position the Company to keep its cost of debt

[17] *Moody's Investors Service Credit Opinion*: "CenterPoint Energy Houston Electric, LLC," January 24, 2024 at 1-2, provided by CEHE as CONFIDENTIAL Exhibit JRichert-6.

[18] Richert Direct at 16 22.

low, which would be achieved by strengthening the Company's cash flow credit metrics necessary to maintain or improve its investment grade credit rating.[19]

Q IN SUPPORT OF THE PROPOSED CHANGE IN CAPITAL STRUCTURE, DID CEHE WITNESS RICHERT COMMENT ON THE IMPACT ON RATE AFFORDABILITY AND BALANCED TREATMENT TO CUSTOMERS BASED ON THE COMPANY'S PROPOSED CHANGE IN CAPITAL STRUCTURE?

A No. In her assessment of the Company's proposal to change the ratemaking capital structure to approximately a 45% equity ratio from 42.5%, Ms. Richert simply did not discuss the cost to customers, or the impact on the Company's rate affordability. She addressed this purely from a financial perspective. For the reasons outlined below, I find her proposal to change the ratemaking capital structure unreasonable because it is not necessary to support the Company's current bond rating and access to capital. Further, this proposal unnecessarily increases the Company's cost of service, and is in direct contrast to its need to manage rate affordability to support its service area economy.

More generally, the Company's proposal to increase its ratemaking capital structure common equity ratio from 42.5% up to 44.9%, at the Company's requested return on equity, increases the Company's claimed total Company revenue deficiency in this proceeding by $25.8 million as outlined on Exhibit MPG-3. Reflecting my proposed return on equity of 9.50% and capital structure adjustment will reduce the Company's claimed revenue deficiency by a combined revenue reduction of $84.4 million.

[19] *Id.*

Q IS CEHE's PROPOSAL TO INCREASE THE COMMON EQUITY RATIO NECESSARY TO SUPPORT ITS INVESTMENT GRADE BOND RATING AND LARGE CAPITAL PROGRAM?

A No. CEHE has been able to maintain credit metrics within its credit risk profile, despite its large capital program. Importantly, the Company's credit metrics are expected to remain within S&P's and Moody's projected credit metric levels that will support its current credit rating through 2026. After the large capital spending period is completed and CEHE's new investments are placed into rates and begin to yield increased revenues, it is reasonable to expect, as do credit analysts, that the credit metrics for CEHE will improve and its outlook will stabilize or possibly turn positive, as CEHE and its parent company's CNP, large capital program restriction on cash flow is mitigated over time, and/or CNP reduces its parent company leverage.

But more significantly, CEHE's proposal to increase its equity ratio disregards its need to manage rate affordability, and to moderate the impact on customer bills while managing its elevated capital expenditure program. CEHE's proposed change in its capital structure will increase its cost of service and erode rate affordability. Further, the proposed increase in CEHE's cost of capital will increase its profitability at the expense of ratepayers.

Q HAS THE TEXAS COMMISSION'S REGULATORY TREATMENT FOR TRANSMISSION AND DISTRIBUTION UTILITIES ("TDUs") SUPPORTED STRONG CREDIT RATINGS, FINANCIAL INTEGRITY, AND RATE AFFORDABILITY?

A Yes. The authorized overall rates of return for TDUs in Texas have consistently reflected and been appropriate for Texas' more highly leveraged TDUs that benefit from low-cost recovery risk due to the state's regulatory mechanisms, including its many

interim rate adjustments. Through its distribution cost recovery factor ("DCRF") and Transmission Cost of Service ("TCOS") mechanisms, Texas TDUs benefit from prompt interim adjustments in customer bills to accommodate changes in plant investment relative to a utility's last comprehensive base rate case. These regulatory mechanisms significantly reduce regulatory lag and enhance utilities' earnings and cash flow as plant investments increase after their last general rate case. These mechanisms enhance CEHE's ability to increase FFO relative to total debt, and not only support credit metrics during large capital programs, but also will allow credit metrics to more quickly rebound as the utilities' large capital programs wind down. Table 5 below summarizes how TDUs operating within the Electric Reliability Council of Texas, Inc. ("ERCOT")—including Oncor Electric Delivery Company, AEP Texas—have benefited from strong credit ratings based on the Texas Commission's regulatory practices.

TABLE 5

Texas TDUs Risk Characteristics

Line	Description	Oncor Electric Delivery Co. (1)	CenterPoint Energy Houston (2)	AEP Texas (3)
	I. Credit Factors[1]			
1	FFO / Debt[2]	16.1%	14.7%	12.7%
2	Equity Ratio[2]	43.7%	45.3%	41.2%
3	Credit Rating	A/Stable	BBB+/Negative	BBB+/Negative
4	Business Risk	Excellent	Excellent	Excellent
5	Financial Risk	Intermediate	Significant	Aggressive
	II. Regulatory Factors[3]			
6	Authorized Equity Ratio	42.50%	42.50%	42.50%
7	Authorized ROE	9.70%	9.40%	9.40%

Sources:
[1] *S&P Capital IQ* , Various Reports, downloaded May 9, 2024.
[2] *S&P Global Rating*: "CenterPoint Energy Houston Electric LLC," April 26, 2023 at 4.
[3] *S&P Capital IQ* , TDUs Rate Case Profiles.xlsx.

As outlined in Table 5 above, the largest Texas TDUs all have strong investment grade bond ratings. The equity ratio in line 2 in Table 5 is the credit rating equity ratio which reflects the long-term debt included in the ratemaking capital structure, plus short-term debt and off-balance-sheet debt equivalents for calendar year 2022. It shows that CEHE can earn above S&P's minimum FFO/Debt ratio, above 12.0%, with a ratemaking capital structure equity ratio of 42.5% during a period of large capital expenditures.

The outlooks for CEHE and AEP Texas both reflect large parent company capital programs, as well as utility affiliate capital programs. While both of these utilities' credit metrics may be strained during extra-large capital programs, their credit metrics are expected to improve after either the capital program subsides to more normal levels, or plant in-service balances increase sufficiently to offset the cash flow temporary impacts due to large construction work in progress ("CWIP") balances. As outlined in the table above, these positive financial strengths and strong credit ratings have been supported by the ratemaking capital structure that has been approved by the Texas Commission, which involves 42.5% equity for each of these utilities. Changing ratemaking capital structures can unnecessarily increase costs to customers and impair the utilities' ability to keep rates as low as possible, thereby negatively impacting rate affordability.

As outlined in Table 5 above, both CEHE and AEP Texas have "Negative" outlooks due to their affiliation with parent companies that are implementing large capital programs across their entire portfolio, but for both of these utilities, existing regulatory mechanisms are anticipated to support acceptable credit metrics as they execute large capital programs and will support improved credit metrics once those large annual capital expenditure programs begin to either wind down, or as embedded

plant investment grows in proportion to large annual capital spending, and thus improves credit metrics.

It is important to note that as embedded plant grows in relationship to annual capital expenditures, a larger portion of the Company's plant in-service, excluding CWIP, will be generating earnings and cash flow because the cost of these in-service investments will be included in customer bills through interim rate mechanisms and/or future base rate cases. Increasing bills to pay for greater plant in-service costs will increase the Company's operating income and internal cash flow, and improve core credit metrics of FFO/Debt coverages and cash flow from operations ("CFO") debt coverages, which are the key credit metrics noted by both S&P and Moody's as concerns for managing credit metrics through CEHE's large capital program.

Q WHY DO YOU STATE THAT CEHE's CREDIT METRICS AT ITS EXISTING APPROVED CAPITAL STRUCTURE WITH A COMMON EQUITY RATIO OF 42.50% IS ALREADY ACHIEVING THE CASH FLOW CREDIT METRICS PROJECTED BY S&P AND MOODY'S THAT SHOULD MAINTAIN ITS BOND RATING THROUGH ITS LARGE CAPITAL PROGRAM?

A As evident by a comparison of the current and projected credit metrics for CEHE using S&P and Moody's methodologies, CEHE's large capital program has strained its metrics, but they have been effectively managed to generally fall in the range that both S&P and Moody's state will support CEHE's credit rating during the large capital program.

For example, historical and projected credit metric ranges for CEHE from S&P are shown below in Table 6.

TABLE 6

CEHE

S&P Key Credit Metrics

Description	Actual 2019	2020	2021	2022	2023	S&P Forecast[2] 2024 - 2026
I. Credit Metrics[1]						
Debt/EBITDA (x)	3.6	4.8	4.6	4.7	4.7	4.5-5.0
FFO/Debt (%)	19.5	14.9	17.1	14.7	17.0	15.0-17.0
II. Regulatory Authorized[3]						
Equity Ratio	42.5%	42.5%	42.5%	42.5%	42.5%	
ROE	9.4%	9.4%	9.4%	9.4%	9.4%	
III. Actual[4]						
Equity Ratio	44.8%	41.9%	39.7%	42.1%	44.5%	
Earned ROE	12.0%	10.5%	11.3%	12.3%	9.8%	
IV. Capital Expenditure[4]						
CWIP/Net Plant	5.0%	5.4%	6.3%	8.4%	7.4%	
Capital Exp. (M$)	(1,035)	(1,021)	(1,778)	(2,453)	(2,279)	

Source and Notes:

[1] *S&P Capital IQ,* downloaded May 15, 2024.

[2] *S&P Global Ratings:* "CenterPoint Energy Houston Electric LLC," April 12, 2024 at 3.

[3] *S&P Capital IQ,* TDUs Rate Case Profiles.xlsx.

[4] S&P Market Intelligence, FERC Form-1 Various Dates, downloaded on May 15, 2024.

As shown in the historical credit metrics, under S&P's methodology, CEHE's FFO/Debt ratio has ranged from 14.7% to 17.1% over the period 2021 through 2023. S&P notes that it expects CEHE to earn an FFO/Debt ratio within the range of 15.0% to 17.0% through 2026. CEHE has earned the targeted FFO/Debt ratio with its current ratemaking capital structure equity ratio of 42.5%. CEHE's actual capital structure

during this time period has generally followed its ratemaking actual capital structure, as shown below in Table 7.[20]

TABLE 7

CEHE Actual Capital Structure

Description	2019	2020	2021	2022	2023
Long-Term Debt	$ 4,000	$ 4,300	$ 4,995	$ 6,085	$ 7,484
Short-Term Debt	$ -	$ 8	$ 512	$ 642	$ -
Total Debt	$ 4,000	$ 4,308	$ 5,506	$ 6,727	$ 7,484
Common Equity	$ 3,252	$ 3,112	$ 3,623	$ 4,888	$ 5,991
Total	**$ 7,252**	**$ 7,420**	**$ 9,129**	**$ 11,615**	**$ 13,475**
Total Debt	55.16%	58.06%	60.31%	57.91%	55.54%
Common Equity	44.84%	41.94%	39.69%	42.09%	44.46%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Sources:
S&P Market Intelligence, FERC Form-1 Various Dates, downloaded on May 15, 2024.

The actual earned credit metrics relative to the credit metric range based on CEHE's current "Significant" financial risk profile from S&P are also in compliance with the targeted metrics. For a business risk profile of "Excellent" and a financial risk profile of "Significant," S&P's target FFO/Debt ratio is in the range of 13% to 23%.[21]

Q HAS CEHE'S EARNED METRICS BASED ON MOODY'S METHODOLOGY SUPPORTED ITS BOND RATING FROM MOODY'S?

A Yes. CEHE's historical credit metrics from Moody's are shown below in Confidential Table 8.

[20] Notably, CEHE's actual equity ratio has been at or below its authorized equity ratio in every year shown on Table 7, except for 2019 (while it was litigating its last base rate case, Docket No. 49421) and 2023 (the test year for this base rate case).

[21] *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

TABLE 8

CEHE
Moody's Key Credit Metrics

	2019	2020	2021	2022	Sept. 2023
CFO Pre-WC + Interest / Interest	[redacted]				
CFO Pre-WC / Debt					
CFO Pre-WC - Div / Debt					
Debt / Capitalization					

Source:
Richert Direct Testimony, CONFIDENTIAl Exhibit JRichert-6.

As shown in the table, the Company's actual historical earned cash flow from operations pre-Working Capital ("CFO/pre-WC")/Debt consistently has been above 14% with the exception of 2021. As outlined in the Moody's report discussed above, "[redacted]"[22] CEHE has earned this CFO coverage under the current ratemaking capital structure.

Moody's assesses CEHE under its low business risk grid because the Company is not exposed to any commodity risk.[23] For a low business risk utility, Moody's targets for the CFO Pre-WC/Debt fall in the range of 11% to 19%.[24] As shown in the table above, CEHE has operated within this range since 2020, despite implementing a large capital program over that time.

[22] *Moody's Investors Service Credit Opinion*: "CenterPoint Energy Houston Electric, LLC," January 24, 2024, provided by CEHE as CONFIDENTIAL Exhibit JRichert-6.

[23] *Id.*

[24] Moody's: "Rating Methodology: Regulated Electric and Gas Utilities," June 23, 2017.

Q PLEASE COMMENT ON MS. RICHERT'S PROJECTED FFO TO DEBT RATIO BASED ON HER ASSUMED 45%/55% EQUITY/DEBT RATEMAKING CAPITAL STRUCTURE.

A Ms. Richert projects CEHE FFO/Debt based on a 55%/45% debt/equity capital structure and a return on equity of 10.4% in her Table JRichert-9. She projects that CEHE will earn an FFO/Total Debt ratio in the range of 17% to 17.3% over the forecast period of 2025-2028.

Q DOES MS RICHERT'S PROJECTED FFO/TOTAL DEBT METRIC SUPPORT THE CHANGE IN CAPITAL STRUCTURE?

A No. Ms. Richert asserts that the FFO is based on a 10.4% return on equity. However, her financial projections workpapers indicate that the FFO projections are based on an earned return on equity of 9.4%, and not 10.4%.

Further, using her financial projections and restating this forecasted FFO to reflect a 42.5% common equity ratio rather than the 45% equity ratio reflected in Ms. Richert's table indicates that CEHE would earn an FFO/Debt ratio in excess of 16% through 2028 – again based on a ratemaking capital structure of 42.5%/57.5% equity/debt, and an earned return of 9.4% to 9.6%. These revised FFO/Debt ratio projections are shown below in Table 9.

TABLE 9

Revised CEHE Credit Metrics

($ in Billions)	2025E	2026E	2027E	2028E
FFO (at 57.5%/42.5% structure at 9.4% ROE)	$1.5	$1.7	$1.9	$2.0
Total Debt	$9.4	$10.3	$11.4	$12.3
FFO / Total Debt	**16.0%**	**16.3%**	**16.3%**	**16.4%**

Source: Richert Direct Testimony, Table JRichert-9 at 25 , and
GCCC01-01 WP Attachment JRichert-01 (CONFIDENTIAL).xlsx.

Based on CEHE's actual operations over the last several years, and CEHE's own projected credit metrics through 2028 (adjusted to reflect CEHE's previously approved ratemaking capital structure), show that an equity ratio of 42.5% will be sufficient to support CEHE's credit metrics and will help maintain CEHE's current investment grade bond rating while also supporting rate affordability.

Q PLEASE EXPLAIN WHY A CAPITAL STRUCTURE WITH TOO MUCH COMMON EQUITY UNNECESSARILY OVERSTATES A UTILITY'S REVENUE REQUIREMENT.

A Using an equity-thick capital structure increases CEHE's rate of return and revenue requirement because common equity is the most expensive form of capital, and is subject to income tax expense. For example, customers will pay a return of 12.73% for the revenue requirement to produce a 9.50% return on equity (9.50% x 1.34 gross-up). In comparison, customers will pay around 5.50% on debt capital because it is not subject to income tax expense. As such, common equity capital is more than twice as expensive as debt capital.

Because of the significantly greater cost, a utility should finance its utility plant investments with a reasonable mix of debt and equity. Equity is needed to manage the level of financial risk to support strong investment grade credit. Too much common equity, however, increases a utility's rates above the level that is necessary to support strong investment credit and reasonable access to capital markets. Conversely, a balanced capital structure will lead to reasonable costs to customers, while still supporting a strong investment grade credit standing and in turn allowing a utility to fund necessary plant investment to maintain service quality and reliability. As such, a capital structure composed of a reasonable mix of debt and equity capital will support a utility's financial integrity and credit standing at the most reasonable and just prices to retail customers.

Q DO YOU RECOMMEND THE COMMISSION CONTINUE TO SET RATEMAKING CAPITAL STRUCTURES FOR ELECTRIC UTILITIES OPERATING WITHIN ERCOT CONSISTENTLY WITH WHAT IT HAS FOUND TO BE A REASONABLE RATEMAKING CAPITAL STRUCTURE SINCE THE RESTRUCTURING OF THE TEXAS MARKET?

A Yes. It appears that credit rating agencies and market participants believe that the regulatory capital structures approved by the PUCT for TDUs like CEHE, AEP Texas, and Oncor are appropriate in light of the low-risk operating nature of wires-only TDUs operating in ERCOT. Therefore, I recommend the Commission continue to set rates for CEHE in a litigated proceeding based on its current approved common equity ratio of 42.50%. Below, I show that this ratemaking capital structure, along with the other ratemaking components of CEHE's cost of service in this case, will produce credit metrics that are adequate to support its investment grade bond rating.

Q WHAT IS YOUR PROPOSED CAPITAL STRUCTURE FOR CEHE IN THIS REGULATORY PROCEEDING?

A I recommend a ratemaking capital structure for CEHE as shown below in Table 10.

TABLE 10

Gorman's Proposed Capital Structure
(December 31, 2023)

Description	Weight
Long-Term Debt	57.50%
Common Equity	42.50%
Total Regulatory Capital Structure	100.00%

Source: Exhibit MPG-1.

II.F. Embedded Cost of Debt

Q WHAT IS CEHE's EMBEDDED COST OF LONG-TERM DEBT?

A CEHE is proposing an embedded cost of long-term debt of 4.29% as developed on Schedule II-C-2.4a and supported by the Company's witness Ms. Richert. I have used CEHE's proposed embedded cost of long-term debt in my calculation of an overall weighted cost of capital.

III. RETURN ON EQUITY

Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON EQUITY."

A A utility's cost of common equity is the expected return that investors require on an investment in the utility. Investors expect to earn their required return from receiving dividends and through stock price appreciation.

Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED UTILITY'S COST OF COMMON EQUITY.

A In general, determining a fair cost of common equity for a regulated utility has been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). In these decisions, the Supreme Court found that just compensation depends on many circumstances and must be determined by fair and enlightened judgments based on relevant facts. The Court found that a utility is entitled to such rates as were permitted to earn a return on its property devoted to the convenience of the public that is generally consistent with the same returns available in other investments of corresponding risk. The Court continued that the utility has no constitutional rights to profits such as those realized or anticipated in highly profitable enterprises or speculative ventures, and defined the ratepayer/investor balance as follows:

> 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.[25]

As such, a fair rate of return is based on the expectation that the utility's costs reflect efficient and economical management, and the return will support its credit standing and access to capital, without being in excess of this level. From these standards, rates to customers will be just and reasonable, and under economic management, compensation to the utility will be fair and support financial integrity and credit standing.

[25] *Bluefield,* 262 U.S. 679, 693 (1923), emphasis added.

III.A. Risk Proxy Group

Q PLEASE DESCRIBE HOW YOU IDENTIFIED A PROXY UTILITY GROUP THAT COULD BE USED TO ESTIMATE CEHE'S CURRENT MARKET COST OF EQUITY.

A I relied on the same proxy group developed by CEHE witness Ms. Bulkley, with one exception. I excluded ALLETE, Inc. because on May 5, 2024, an Investor Group comprised of Canada Pension Plan Investment Board and Global Infrastructure Management, LLC entered into a definitive agreement to acquire ALLETE, Inc.

Companies that are involved in mergers and acquisitions ("M&A") or divestitures activities have market valuations that may not accurately reflect the stand-alone valuation of the company, but rather may anticipate enhanced valuation from the proposed M&A transaction. Therefore, removing them from the proxy group is necessary because the resulting market-based return analyses on these specific companies can be distorted and/or would simply be unreliable.

I find my proxy group reasonably comparable to CEHE's investment risk characteristics.

Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS REASONABLY COMPARABLE IN INVESTMENT RISK TO CEHE.

A My proxy group is shown in Exhibit MPG-4. The proxy group has an average credit rating from S&P of BBB+, which is identical to CEHE's S&P credit rating. The proxy group has an average credit rating from Moody's of Baa2, which a notch lower than CEHE's Moody's credit rating of Baa1.[26]

The proxy group has an average common equity ratio of 40.6% from S&P (including short-term debt) and a 44.1% equity ratio from *Value Line* (excluding short-

[26] Bulkley Direct Testimony at 30.

term debt). An equity ratio for CEHE of 42.5%[27] is comparable to and within the proxy group equity ratio range.

III.B. DCF Model

Q PLEASE DESCRIBE THE DCF MODEL.

A The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \ldots . \frac{D_\infty}{(1+K)^\infty} \qquad \text{(Equation 1)}$$

P_0 = Current stock price
D = Dividends in periods 1 - ∞
K = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor-required return, known as "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \qquad \text{(Equation 2)}$$

K = Investor's required return
D_1 = Dividend in first year
P_0 = Current stock price
G = Expected constant dividend growth rate

Equation 2 is referred to as the annual "constant growth" DCF model.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

A As shown in Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

[27] Richter Direct Testimony at 22 and Exhibit MPG-1.

Q WHAT STOCK PRICE DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I relied on the average of the weekly high and low stock prices of the utilities in the proxy group over a 13-week period ending on May 17, 2024. An average stock price is less susceptible to market price variations than a price at a single point in time. Therefore, an average stock price is less susceptible to aberrant market price movements, which may not reflect the stock's long-term value.

A 13-week average stock price reflects a period that is still short enough to contain data that reasonably reflects current market expectations, but the period is not so short as to be susceptible to market price variations that may not reflect the stock's long-term value. In my judgment, a 13-week average stock price is a reasonable balance between the need to reflect current market expectations and the need to capture sufficient data to smooth out aberrant market movements.

Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A I used the most recently paid quarterly dividend as reported in *Value Line*.[28] This dividend was annualized (multiplied by 4) and adjusted for next year's growth to produce the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by multiplying the annualized dividend (D_0) by (1+G).

Q WHAT DIVIDEND GROWTH RATES DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

A There are several methods that can be used to estimate the expected growth in dividends. However, regardless of the method, to determine the market-required return

[28] *The Value Line Investment Survey,* March 8, April 19, and May 10, 2024.

on common equity, one must attempt to estimate investors' consensus about what the dividend, or earnings growth rate, will be and not what an individual investor or analyst may use to make individual investment decisions.

As predictors of future returns, securities analysts' growth estimates have been shown to be more accurate than growth rates derived from historical data.[29] That is, assuming the market generally makes rational investment decisions, analysts' growth projections are more likely to influence investors' decisions, which are captured in observable stock prices, than growth rates derived only from historical data.

For my constant growth DCF analysis, I have relied on a consensus, or mean, of professional securities analysts' earnings growth estimates as a proxy for investor consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, S&P Global Market Intelligence ("MI"), and Yahoo! Finance. All such projections were available on May 17, 2024, and all were reported online.

Each consensus growth rate projection is based on a survey of securities analysts. There is no clear evidence whether a particular analyst is most influential on general market investors. Therefore, a single analyst's projection does not as reliably predict consensus investor outlooks as does a consensus of market analysts' projections. The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts' earnings growth forecasts. A simple average of the growth forecasts gives equal weight to all surveyed analysts' projections. Therefore, a simple average, or arithmetic mean, of analyst forecasts is a good proxy for market consensus expectations.

[29] *See, e.g.*, David Gordon, Myron Gordon & Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH DCF MODEL?

A The growth rates I used in my DCF analysis are shown in Exhibit MPG-5. The average growth rate for my proxy group is 6.51%.

Q WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?

A As shown in Exhibit MPG-6, the average and median constant growth DCF returns for my proxy group for the 13-week analysis are 11.10% and 10.62%, respectively.

Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT GROWTH DCF ANALYSIS?

A Yes. The constant growth DCF analysis for my proxy group is based on an average long-term sustainable growth rate of 6.51%. The three- to five-year growth rate exceeds my estimate of a maximum long-term sustainable growth rate of 4.10% by approximately 240 basis points. As discussed in more detail below, it is unreasonable to believe that utility earnings can grow more than the sustainable growth rate of the U.S. economy as measured by the long-term projected Gross Domestic Product ("GDP") growth for an indefinite period. Therefore, I find the results of the constant growth DCF model unreasonable.

Also, the results of my constant growth DCF proxy group average are subject to outlier results. For example, the DCF return for Portland General of 15.74% is based on a growth rate of 10.73%, which is almost three times the growth of the U.S. economy. As discussed in more detail below, this growth is not sustainable in perpetuity as required by the DCF methodology. Therefore, I find the results produced by the proxy group median to better describe the central tendency of my proxy group

results. Nevertheless, the DCF return is still inflated by an unsustainable short-term growth rate projection.

Q HOW DID YOU ESTIMATE A MAXIMUM LONG-TERM SUSTAINABLE GROWTH RATE?

A The long-term sustainable growth rate for a utility stock cannot exceed the growth rate of the economy in which it sells its goods and services. The long-term maximum sustainable growth rate for a utility investment is, accordingly, best proxied by the projected long-term GDP growth rate as that reflects the projected long-term growth rate of the economy as a whole. While growth rates on shorter periods can exceed the GDP growth rate, those short-term growth periods are likely followed by other periods where the growth rate is below the GDP. On average over long periods of time, the growth rate is most accurately approximated by the long-term growth rate outlooks of the U.S. GDP.

Blue Chip Economic Indicators projects that over the next 5 and 10 years, the U.S. nominal GDP will grow at an annual rate of approximately 4.1%. These GDP growth projections reflect a real growth outlook of around 1.9% and an inflation outlook of around 2.2% going forward. As such, the average nominal growth rate over the next 5 to 10 years is around 4.1%, which I believe is a reasonable proxy of long-term sustainable growth.[30]

[30] *Blue Chip Economic Indicators*, March 11, 2024, at 14.

Q IS THERE INDEPENDENT AUTHORITATIVE SUPPORT FOR USING LONG-TERM GDP GROWTH AS A MAXIMUM SUSTAINABLE GROWTH RATE?

A Yes. In my multi-stage growth DCF analysis, I discuss academic and investment practitioner support for using the projected long-term GDP growth outlook as a maximum sustainable growth rate projection. Using the long-term GDP growth rate, however, as a conservative projection for the maximum sustainable growth rate is logical, and is generally consistent with academic and economic practitioner accepted practices.

III.C. Sustainable Growth DCF

Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE LONG-TERM GROWTH RATE FOR YOUR SUSTAINABLE GROWTH DCF MODEL.

A A sustainable growth rate is based on the percentage of the utility's earnings that is retained and reinvested in utility plant and equipment. These reinvested earnings increase the earnings base (rate base). Earnings grow when plant funded by reinvested earnings is put into service, and the utility is allowed to earn its authorized return on such additional rate base investment.

The internal growth methodology is tied to the percentage of earnings retained by the utility and not paid out as dividends. The earnings retention ratio is 1 minus the dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases. An increased earnings retention ratio will fuel stronger growth because the business funds more investments with retained earnings.

The payout ratios of the proxy group are shown in my Exhibit MPG-7. These dividend payout ratios and earnings retention ratios then can be used to develop a sustainable long-term earnings retention growth rate. A sustainable long-term earnings

retention ratio will help gauge whether analysts' current three- to five-year growth rate projections can be sustained over an indefinite period of time.

The data used to estimate the long-term sustainable growth rate is based on CEHE's current market-to-book ratio and on *Value Line*'s three- to five-year projections of earnings, dividends, earned returns on book equity, and stock issuances.

As shown in Exhibit MPG-8, the average sustainable growth rate using this internal growth rate model is 4.90% for my proxy group. However, I would point out that prior to accounting for the external sale of additional shares the internal growth rate for my proxy group is 4.23%, which is comparable to the maximum sustainable growth rate of 4.10% as described above.

Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM GROWTH RATES?

A A DCF estimate based on these sustainable growth rates is developed in Exhibit MPG-9. As shown there, the sustainable growth DCF analysis produces proxy group average and median DCF results for the 13-week period of 9.42% and 9.29%, respectively. I would note that the sustainable growth rate for the group average of 9.42% is significantly impacted by NextEra Energy's growth rate of 8.08%.[31] This growth rate reflects an internal sustainable growth rate of 5.16%, and an expectation of external growth produced by selling additional shares to the market over a sustained period and an elevated earned return on equity due in large part to both utility and non-utility subsidiaries. Because of the impact of NextEra Energy on the group average, I believe the group median estimate of 9.29% more reasonably reflects the central tendency of the sustainable long-term growth rate proxy group estimate.

[31] Exhibit MPG-8, page 1.

III.D. Multi-Stage Growth DCF Model

Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

A Yes. My first constant growth DCF is based on consensus analysts' growth rate projections so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on this constant growth DCF model is that it cannot reflect a rational expectation that a period of high or low short-term growth can be followed by a change in growth to a rate that better reflects long-term sustainable growth. Therefore, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?

A Analyst-projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies go through cycles in making investments in their systems. When utility companies are making large investments, their rate base grows rapidly, which in turn accelerates earnings growth. Once a major construction cycle is completed or levels off, growth in the utility rate base slows and its earnings growth slows from an abnormally high three- to five-year rate to a lower sustainable growth rate.

As major construction cycles extend over longer periods of time, even with an accelerated construction program, the growth rate of the utility will slow simply because the pace of rate base growth will slow and because the utility has limited human and capital resources available to expand its construction program. Therefore, the three- to five-year growth rate projection should only be used as a long-term sustainable growth rate in concert with a reasonable, informed judgment as to whether it considers

the current market environment, the industry, and whether the three- to five-year growth outlook is actually sustainable.

Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

A The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period consisting of the first five years; (2) a transition period, consisting of the next five years (6 through 10); and (3) a long-term growth period starting in year 11 through perpetuity.

For the short-term growth period, I relied on the consensus analysts' growth projections I used above in my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor reflecting the difference between the analysts' growth rates and the long-term sustainable growth rate. For the long-term growth period, I assumed each company's growth would converge to the maximum sustainable long-term growth rate, which is the projected long-term GDP growth rate.

Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?

A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the economy in which they sell services. Utilities' earnings/dividend growth are created by increased utility investment or rate base. Such investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth in their service areas.

The U.S. Department of Energy, Energy Information Administration ("EIA") has observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown in Exhibit MPG-10. Utility sales growth has lagged behind GDP growth for more than a decade. As a result, nominal GDP growth is a very conservative proxy for utility sales growth, rate base growth, and earnings growth. Therefore, the U.S. GDP nominal growth rate is a reasonable proxy for the highest sustainable long-term growth rate of a utility.

Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?

A Yes. This concept is supported in published analyst literature and academic work. Specifically, in "Fundamentals of Financial Management," a textbook published by Eugene Brigham and Joel F. Houston, the authors state:

> The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation).[32]

The use of the economic growth rate is also supported by investment practitioners as outlined as follows:

> **Estimating Growth Rates**
>
> One of the advantages of a three-stage discounted cash flow model is that it fits with life cycle theories in regards to company growth. In these theories, companies are assumed to have a life cycle with varying growth characteristics. Typically, the potential for extraordinary growth in the near term eases over time and eventually growth slows to a more stable level.

[32] *"Fundamentals of Financial Management,"* Eugene F. Brigham & Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.

* * *

> Another approach to estimating long-term growth rates is to focus on estimating the overall economic growth rate. Again, this is the approach used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic growth rate, a forecast is made of the growth rate's component parts. Expected growth can be broken into two main parts: expected inflation and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth.[33]

Q ARE THERE ACTUAL INVESTMENT RESULTS THAT SUPPORT THE THEORY THAT THE GROWTH ON STOCK INVESTMENTS WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?

A Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP to the geometric growth of the U.S. stock market. Kroll measures the historical geometric growth of the U.S. stock market over the period 1926-2022 to be approximately 6.2%.[34] During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.0%.[35]

As such, over the past 95 years, the geometric average growth of the U.S. nominal GDP has been comparable to the geometric average growth of the U.S. stock market capital appreciation. This historical relationship indicates that the U.S. GDP growth outlook is a reasonable estimate of the long-term sustainable growth of U.S. stock investments.

---

[33] *Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

[34] Kroll, *2023 SBBI Yearbook* at 137 and Market Direct.

[35] U.S. Bureau of Economic Analysis, Table 1.1.5 Gross Domestic Product, Revised May 30, 2023.

Q WHAT IS THE GEOMETRIC AVERAGE AND WHY IS IT APPROPRIATE TO USE THIS MEASURE TO COMPARE GDP GROWTH TO CAPITAL APPRECIATION IN THE STOCK MARKET?

A The terms geometric average growth rate and compound annual growth rate are used interchangeably. The geometric annual growth rate is the calculated growth rate, or return, that measures the magnitude of growth from start to finish. The geometric average is best, and most often, used as a measurement of performance or growth over a long period of time.[36] Because I am comparing achieved growth in the stock market to achieved growth in U.S. GDP over a long period of time, the geometric average growth rate is most appropriate.

Q HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT REFLECTS THE CURRENT CONSENSUS MARKET PARTICIPANT OUTLOOK?

A I relied on the economic consensus of long-term GDP growth projections. *Blue Chip Economic Indicators* publishes the consensus for GDP growth projections twice a year. These consensus GDP growth outlooks are the best available measure of the market's assessment of long-term GDP growth because the analysts' projections reflect all current outlooks for GDP. They are therefore likely the most influential on investors' expectations of future growth outlooks. The consensus projection for the GDP growth rate outlook is 4.1% over the next 5 to 10 years.[37]

I propose to use the consensus for projected five-year average GDP growth rates of 4.1%, as published by *Blue Chip Economic Indicators*, as an estimate of long-term sustainable growth. *Blue Chip Economic Indicators* projections provide real

[36] *New Regulatory Finance*, Roger Morin, PhD, at 133-134.
[37] *Blue Chip Economic Indicators*, March 11, 2024, at 14.

GDP growth projections of 1.9% and inflation of approximately 2.2% over the next 5 to 10-year (2025-2034) period, resulting in an average projected nominal annual GDP growth projection of 4.1%.[38] These GDP growth forecasts represent the most likely views of market participants because they are based on published economic consensus projections.

Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP GROWTH?

A Yes and these alternative sources corroborate the consensus analysts' projections I relied on. Various commonly relied upon analysts' projections are shown in Table 11 below.

[38] *Id.*

TABLE 11

GDP Forecasts

Source	Projected Period	Real GDP	Inflation	Nominal GDP
Blue Chip Economic Indicators [1]	5-10 Yrs	1.9%	2.2%	4.1%
EIA - Annual Energy Outlook[2]	27 Yrs	1.9%	2.3%	4.3%
Congressional Budget Office[3]	30 Yrs	1.7%	2.0%	3.8%
Moody's Analytics[4]	31 Yrs	1.9%	2.1%	4.1%
Social Security Administration[5]	76 Yrs	1.6%	2.4%	4.0%
Economist Intelligence Unit[6]	31 Yrs	1.7%	2.2%	4.0%

Sources:

[1]Blue Chip Economic Indicators, March 11, 2024 at 14.

[2]U.S. Energy Information Administration (EIA), Annual Energy Outlook 2023, September, 2022.

[3]Congressional Budget Office, Long-Term Budget Outlook, March 28, 2024.

[4]Moody's Analytics Forecast, last updated March 20, 2024.

[5]Social Security Administration, "2024 OASDI Trustees Report," Table VI.G6. May 6, 2024.

[6]S&P MI, Economist Intelligence Unit, downloaded on April 25, 2024.

As shown in the table above, the real GDP and inflation fall in the range of 1.6% to 1.9% and 2.0% to 2.4%, respectively. This results in a nominal GDP in the range of 3.8% to 4.3%.

Therefore, the nominal GDP growth projections made by these independent sources support my use of 4.1% as a reasonable estimate of market participants' expectations for long-term GDP growth.

Q WHAT STOCK PRICE, DIVIDEND, AND GROWTH RATES DID YOU USE IN YOUR MULTI-STAGE GROWTH DCF ANALYSIS?

A I relied on the same 13-week average stock prices and the most recent quarterly dividend payment data discussed above. For stage one growth, I used the consensus analysts' growth rate projections discussed above in my constant growth DCF model. The first stage covers the first five years, consistent with the time horizon of the securities analysts' growth rate projections. The second stage, or transition stage, begins in year 6 and extends through year 10. The second stage growth transitions the growth rate from the first stage to the third stage using a straight linear trend. For the third stage, or long-term sustainable growth stage, starting in year 11, I used a 4.10% long-term sustainable growth rate based on the consensus economists' long-term projected nominal GDP growth rate.

Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?

A As shown in Exhibit MPG-11, the average and median DCF returns on equity for my proxy group using the 13-week average stock price are 9.30% and 9.49%, respectively.

III.E. DCF Summary Results

Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

A The results from my DCF analyses are summarized in Table 12 below:

TABLE 12

Summary of DCF Results

Description	Average	Median
Constant Growth DCF Model (Analysts' Growth)	11.10%	10.62%
Constant Growth DCF Model (Sustainable Growth)	9.42%	9.29%
Multi-Stage Growth DCF Model	9.30%	9.49%

Based on the current market conditions, my DCF studies indicate a fair return on equity for CEHE of 9.30%. As outlined above, I place little weight on the results of my constant growth DCF model using analyst growth rate projections, simply because the short-term growth rate estimates are far too high to be long-term sustainable growth estimates necessary to produce a valid DCF return estimate. My constant growth DCF model using sustainable growth for the group average is skewed due to the results of NextEra's abnormal earned return on equity, and external growth impacts adjustments to internal growth based on the expectation of selling stock well above prevailing book values. The median growth rate estimate is far more consistent with the central tendency of this proxy group estimate. For the multi-stage model, the 9.3% group average appears to reasonably reflect the central tendency of the proxy group.

III.F. Risk Premium Model

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies

are not required to pay dividends or guarantee returns on common equity investments. Therefore, common equity securities are considered to be riskier than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I quantify the difference between regulatory commission-authorized returns on common equity and contemporary U.S. Treasury bonds. The difference between the authorized return on common equity and the Treasury bond yield is the risk premium. I estimated the risk premium on an annual basis for each year from 1986 through the first quarter of 2024. The authorized returns on equity were based on regulatory commission-authorized returns for utility companies. Authorized returns are typically based on expert witnesses' estimates of the investor-required return at the time of the proceeding.

The second equity risk premium estimate is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields by Moody's. I selected the period 1986 through the first quarter of 2024 because public utility stocks have consistently traded at a premium to book value during that period. This is illustrated in Exhibit MPG-12, which shows the market-to-book ratio since 1986 for the utility industry was consistently above a multiple of 1.0x. Over this period, an analyst can infer that authorized returns on equity were sufficient to support market prices that at least exceeded book value. This is an indication that commission-authorized returns on common equity supported a utility's ability to issue additional common stock without diluting existing shares. It further demonstrates utilities were able to access equity markets without a detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit MPG-13, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.70%. Since the risk

premium can vary depending upon market conditions and changing investor risk perceptions, I believe using an estimated range of risk premiums provides the best method to measure the current return on common equity for a risk premium methodology.

I incorporated five-year and ten-year rolling average risk premiums over the study period to gauge the variability over time of risk premiums. These rolling average risk premiums mitigate the impact of anomalous market conditions and skewed risk premiums over an entire business cycle. As shown on my Exhibit MPG-13, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 7.09%, with an average of 5.73%. The ten-year rolling average risk premium ranged from 4.38% to 6.91%, with an average of 5.75%.

As shown on my Exhibit MPG-14, the average indicated equity risk premium over contemporary "A" rated Moody's utility bond yields was 4.34%. The five-year rolling average risk premiums ranged from 2.88% to 5.90%, with an average of 4.39%. The ten-year rolling average risk premiums ranged from 3.20% to 5.73%, with an average of 4.39%.

Q DO YOU BELIEVE THAT THE TIME PERIOD USED TO DERIVE THESE EQUITY RISK PREMIUM ESTIMATES IS APPROPRIATE TO FORM ACCURATE CONCLUSIONS ABOUT CONTEMPORARY MARKET CONDITIONS?

A Yes. Contemporary market conditions can change during the period that rates determined in this proceeding will be in effect. A relatively long period of time where stock valuations reflect premiums to book value indicates that the authorized returns on equity and the corresponding equity risk premiums were supportive of investors' return expectations and provided utilities access to the equity markets under

reasonable terms and conditions. Further, this time period is long enough to smooth abnormal market movement that might distort equity risk premiums. While market conditions and risk premiums do vary over time, this historical time period is a reasonable period to estimate contemporary risk premiums.

Alternatively, some studies, such as Kroll, have recommended that the use of "actual achieved investment return data" in a risk premium study should be based on long historical time periods. The studies find that achieved returns over short time periods may not reflect investors' expected returns due to unexpected and abnormal stock price performance. Short-term, abnormal actual returns would be smoothed over time and the achieved actual investment returns over long time periods would approximate investors' expected returns. Therefore, it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns.

My risk premium study is based on data that inherently relied on investor expectations, not actual investment returns, and, thus, need not encompass a very long historical time period.

Q WHAT DOES CURRENT OBSERVABLE MARKET DATA SUGGEST ABOUT INVESTOR PERCEPTIONS OF UTILITY INVESTMENTS?

A The equity risk premium should reflect the relative market perception of risk today in the utility industry. I have gauged investor perceptions in utility risk today in Exhibit MPG-15, where I show the yield spread between utility bonds and Treasury bonds over the last 44 years. As shown in this exhibit, the average utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.48% and 1.90%, respectively. The utility bond yield spreads over Treasury bonds for "A"

and "Baa" rated utilities in 2022 were 1.61% and 1.91%, respectively. In 2023, the spreads have declined to 1.45% for "A" rated utilities and 1.75% for "BBB" utilities. More recently, the spreads have decreased even further to 1.18% for "A" rated utilities and 1.41% for "BBB" utilities.

The current 13-week average "A" rated utility bond yield of 5.67% when compared to the current Treasury bond yield of 4.51%, as shown in Exhibit MPG-16, implies a yield spread of 1.16%. This current utility bond yield spread is lower than the 44-year average spread for "A" rated utility bonds of 1.48%. The current spread for the "Baa" rated utility bond yield of 1.38% is also lower than the 44-year average spread of 1.90%.

Q IS THERE OBSERVABLE MARKET EVIDENCE TO HELP GAUGE MARKET RISK PREMIUMS?

A Yes. Market data illustrates how the market is pricing investment risk and gauging the current demands for returns based on securities of varying levels of investment risk. This market evidence includes bond yield spreads for different bond return ratings as implied by the yield spreads for Treasury, corporate and utility bonds. These spreads provide an indication of the market's return requirement for securities of different levels of investment risk and required risk premiums.

Table 13 below summarizes the utility and corporate bond spreads relative to Treasury bond yields.

TABLE 13

Yield Spreads - Risk Premium

Year	Utility Bonds[1] A - T	Utility Bonds[1] Baa - T	Corporate Bonds[1] Aaa - T	Corporate Bonds[1] Baa -T	Utility Stock Spreads[2] Treasury	Utility Stock Spreads[2] A	Utility Stock Spreads[2] Baa	Forward Inflation
Average Historical Spread	1.32%	1.83%	0.87%	1.94%	0.46%	-0.87%	-1.37%	2.16%
2022	1.61%	1.91%	0.96%	1.96%	0.31%	-1.32%	-1.63%	2.64%
2023	1.45%	1.75%	0.72%	1.77%	0.24%	-1.69%	-1.99%	2.48%

Sources:
Average Historical Spread period: 2006 - 2023.
[1]Exhibit MPG-15.
[2]Exhibit MPG-2.

As outlined above, the observable market evidence indicates that utility equity-risk premiums in the current market are very low. The equity risk premium in the current market has contracted significantly relative to historical periods. Similarly, the utility bond yield spread relative to Treasury yields has also declined. This is clear evidence that the market is placing greater investment risk in debt securities currently than equity securities, likely due to the fact that inflation risk has elevated due to more uncertain inflation outlooks, which impact bond investment risk more than equity or stock investment risk.

As outlined in the table above, utility A and B rated spreads to Treasuries are lower than long-term historical averages. Further, utility stock spreads to Treasuries and utility A and BBB rated bonds appear abnormally low. As also indicated in Table 13 above, inflation outlooks are relatively high now and have been for the last several years, and are considerably higher than the long-term historical average (2006-2023). This relationship between utility observable stock yields and bond yields, both Treasury and utility, is outlined on my Exhibit MPG-2. Based on this assessment of observable risk premiums in the market, I conclude that equity risk premiums in the current marketplace are below historical averages, and the current utility spreads are lower than historical averages. Again, this appears to be attributable to the uptick in inflation risk in the current marketplace.

Q IS THERE OTHER OBSERVABLE MARKET EVIDENCE THAT SUPPORTS YOUR CONCLUSION THAT EQUITY RISK PREMIUMS HAVE DECLINED RELATIVE TO UTILITY BOND YIELDS?

A Yes. Over the last several years, bond yields have increased considerably, but authorized returns on equity, and stock utility yields have been relatively stable over the last three to five years. This is demonstrated in Table 14 below.

TABLE 14

Electric Utility and Bond Yield Market Data

Description	Electric Utility Authorized ROE[1]	Electric Utility Industry Average Dividend Yield[2]	Average Public Utility Bonds A Rating[3]	Average 30-Year Treasury Bond Yields[4]
2015	9.60%	3.72%	4.12%	2.84%
2016	9.60%	3.49%	3.93%	2.59%
2017	9.68%	3.36%	4.00%	2.89%
2018	9.55%	3.56%	4.25%	3.11%
2019	9.64%	3.19%	3.77%	2.58%
2020	9.39%	3.56%	3.05%	1.56%
2021	9.39%	3.52%	3.10%	2.06%
2022	9.52%	3.42%	4.74%	3.11%
2023	9.66%	3.86%	5.55%	4.09%

Sources:

[1]2015-2023 data from Michael P. Gorman Direct Testimony, Figure 2.

[2]Exhibit MPG-2, page 4. 2023.

[3]Exhibit MPG-2, page 5. 2023.

[4]https://fred.stlouisfed.org/series/DGS30. Monthly averages pulled from 1/1/2015-12/31/2023.

As outlined in Table 14 above, authorized returns on equity have varied by around 30 basis points over the period 2015 through 2023. During this same time period, utility stock yields have varied by 70 basis points, while the utility and Treasury

yields have increased by 250 basis points. The authorized returns on equity, and utility stock valuations suggest that market demand for making investments in utility stock and related valuations have been relatively stable for many years now. That stability in the authorized returns on equity, based on stock valuations, continues to be evident in these factors currently.

Importantly, the increase in bond yields and stability in equity costs are evidence of a dramatic decline in equity risk premiums in the current market, and the increase in bond yields is not reflective of a similar increase in common equity costs.

Q WHAT IS YOUR RECOMMENDED RETURN FOR CEHE BASED ON YOUR RISK PREMIUM STUDY?

A As outlined above, I believe the current market is reflecting high premiums for investing in securities of greater levels of investment risk. Based on this observation, I propose to be conservative in applying a risk premium analysis. For these reasons, I recommend a risk premium near the historical average to reflect the observable market evidence of the equity risk premiums reflected in utility stock, bond and Treasury bond valuations.

For Treasury bond yields, I considered the five-year rolling average historical risk premium of 5.73% for my proxy group, in combination with the forecasted Treasury bond yield. I note that the forecasted Treasury bond yield is now about 30 basis points lower than the 13-week average yields at the time of my analysis. Using a Treasury bond risk premium of 5.40% (or 95% of the historical average risk premium) and a projected 30-year Treasury bond yield of 4.20%[39] produces an indicated equity risk premium of approximately 9.60% (5.40% + 4.20%).

[39] *Blue Chip Financial Forecasts*, May 1, 2024 at 2.

A risk premium based on utility bond yields reflects current observable bond yields as measured by the five-year rolling average risk premium estimate of 4.39%, as shown on Exhibit MPG-14 and the13-week average A-rated utility bond yield of 5.67%, as shown on my Exhibit MPG-16, page 1. As outlined above, the current equity risk premium relative to utility bond yields is well below historical averages. The consensus is for bond yields to decrease over the period rates determined in this proceeding will be in effect. Given the observable evidence that risk premiums are very low in relation to current bond yields and the expected decline in interest rates, I propose to use 90% of the historical utility risk premium, or 3.95% (4.39% x 90%) and the current utility 13-week A-rated average utility yield of 5.67%, which results in a risk premium of 9.62% (5.67% + 3.95%), rounded to 9.60%.

Therefore, a risk premium estimate based on observable risk premiums in the marketplace, and the expected outlook for moderation in long-term interest rates over the next couple years, support a risk premium based return on equity for CEHE in the range of approximately 9.60%.

III.G. Capital Asset Pricing Model ("CAPM")

Q PLEASE DESCRIBE THE CAPM.

A The CAPM method of analysis is based upon the theory that the market-required rate of return for a security is equal to the risk-free rate, plus a risk premium associated with the specific security. This relationship between risk and return can be expressed mathematically as follows:

$R_i = R_f + B_i \times (R_m - R_f)$ where:

R_i = Required return for stock i
R_f = Risk-free rate
R_m = Expected return for the market portfolio
B_i = Beta - Measure of the risk for stock

The stock-specific risk term in the above equation is beta. Beta represents the investment risk that cannot be diversified away when the security is held in a diversified portfolio. When stocks are held in a diversified portfolio, stock-specific risks can be eliminated by balancing the portfolio with securities that react in the opposite direction to firm-specific risk factors (e.g., business cycle, competition, product mix, and production limitations).

Risks that cannot be eliminated when held in a diversified portfolio are non-diversifiable risks. Non-diversifiable risks are related to the market and referred to as systematic risks. Risks that can be eliminated by diversification are non-systematic risks. In a broad sense, systematic risks are market risks and non-systematic risks are business risks. The CAPM theory suggests the market will not compensate investors for assuming risks that can be diversified away. Therefore, the only risk investors will be compensated for are systematic, or non-diversifiable, risks. The beta is a measure of the systematic, or non-diversifiable risks.

Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.

A The CAPM requires an estimate of the market risk-free rate, CEHE's beta, and the market risk premium.

Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?

A As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond yield is 4.20%.[40] The current 30-year Treasury bond yield is 4.51% as shown in Exhibit MPG-16.

[40] *Id.*

Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE OF THE RISK-FREE RATE?

A Treasury securities are backed by the full faith and credit of the United States government. Therefore, long-term Treasury bonds are considered to have negligible credit risk. Also, long-term Treasury bonds have an investment horizon similar to that of common stock. As a result, investor-anticipated long-run inflation expectations are reflected in both common stock required returns and long-term bond yields. Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a long-term bond yield is a reasonable estimate of the nominal risk-free rate included in common stock returns.

Treasury bond yields, however, do include risk premiums related to unanticipated future inflation and interest rates. In this regard, a Treasury bond yield is not a risk-free rate. Risk premiums related to unanticipated inflation and interest rates reflect systematic market risks. Consequently, for companies with betas less than 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated estimate of the CAPM return.

Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

A For my CAPM, I largely relied on current and historical published utility betas from *Value Line*. However, for the reasons outlined below, I believe the current published betas are skewed based on statistical review of historical betas that includes two abnormal months surrounding the outbreak of the global pandemic, the inclusion of which has resulted in current published betas being at abnormally high levels. When this limited data is excluded from the measurement of betas, the beta estimates are more reflective of long-term historical normalized *Value Line* published betas, and more

consistent with other methods of measuring current betas that smooth out this statistical outlier data.

In Table 15 below, I show various versions of betas measured during the time I performed my analysis, and those published by *Value Line*. As shown in this table, the current *Value Line* published beta for my proxy group is 0.93 (Column 1). This compares to a historical average beta for the proxy group of approximately 0.77 (Column 2). For the electric utility industry, prior to the elevated beta estimates triggered by the COVID-19 pandemic, the historical *Value Line* published beta typically ranges between 0.65 and 0.80 as shown on my Exhibit MPG-17, pages 4-7.

TABLE 15

5-Year Value Line Methodology Betas
(Proxy Group)

	Value Line		Calculated		
Description	**Published[1]**	**Historical[2]**	**Weekly[3]**	**Monthly[3]**	**Weekly Excluding M&A 2020[3/4]**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Beta	0.93	0.77	0.81	0.73	0.73

Source:
[1]Value Line Investment Surveys, March 8, April 19, and May 10, 2024.
[2]Exhibit MPG-17, page 2.
[3]S&P Global Market Intelligence, Downloaded on May 17, 2024.
5-year period ending April 30, 2024.
[4]Excludes the months of March and April, 2020.

In Table 15 above, I also show calculated betas using monthly and weekly time periods over the last five years. *Value Line*'s calculation of a raw beta is based on the weekly percent change of the utility stock relative to the New York Stock Exchange Index. I calculated this *Value Line* beta using their methodology to develop a raw beta, and their *Value Line* adjustment process under Column 3 of Table 15. I also calculated

the beta using monthly percent change of the utility stock in the New York Stock Exchange. This is shown under Column 4 and produces a beta estimate of 0.73, which reasonably aligns with the long-term historical average beta of approximately 0.77 (Column 2). Finally, I calculated a weekly derived raw beta adjusted using the *Value Line* methodology under Column 5 but I excluded data from March and April of 2020. Excluding this data produced a *Value Line* methodology beta of 0.73, which reasonably aligns with the long-term historical average for the proxy group.

Q WHY DID YOU CALCULATE A BETA EXCLUDING MARCH AND APRIL DATA FROM CALENDAR YEAR 2020 IN DEMONSTRATING WHAT AN APPROPRIATE NORMALIZED BETA ESTIMATE IS IN THE CURRENT MARKETPLACE?

A I made this calculation because stock market data at the early onset of the COVID-19 pandemic in March and April of 2020 had the effect of skewing the calculation of beta. This is demonstrated in Table 15 above, where excluding this data produces a beta more consistent with normalized historical betas, and more consistent with a beta calculated from monthly derived data, rather than the weekly derived data relied on by *Value Line*.

Q HAVE YOU REVIEWED THE BETAS FOR THE ELECTRIC UTILITY INDUSTRY TO SEE WHETHER OR NOT THE DATA IN THE EARLY ONSET OF COVID HAD THE EFFECT OF SKEWING BETAS ACROSS THE ENTIRE ELECTRIC UTILITY INDUSTRY FOLLOWED BY *VALUE LINE*?

A Yes. Using the S&P 500 utility index, relative to the New York Stock Exchange, shows that beta estimates like those in *Value Line* are skewed due to two extraordinary months within the 60-month time period used to measure beta. The two months that

skew the betas are March and April of 2020, the time period that coincides with the start of the worldwide COVID-19 pandemic. Removing these two months to derive a more normal level of beta has the effect of reducing utility beta estimates from the very high levels right now of over 0.90, down to more normalized betas in the range of 0.65 to 0.80. This beta regression study is summarized in Table 16 below.

TABLE 16

S&P 500 Utilities vs. NYSE
Regression Betas

Period	Raw Beta	Adjusted Beta	R^2
5-Yr Ending Feb 2020	0.45	0.65	0.18
May 2020 - Current	0.66	0.80	0.36
Most Recent 5-Yr Period	0.88	0.94	0.56

Note:
Calculated using Value Line's regression-based beta methodology.
The current and most recent periods are through May 17, 2024.

Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

A I derived two market risk premium estimates: a forward-looking estimate and one based on a long-term historical average.

The forward-looking estimate was derived by estimating the expected return on the market (as represented by the S&P 500) and subtracting the risk-free rate from this estimate. I estimated the expected return on the S&P inflation rate to the long-term historical arithmetic average real return on the market. The real return on the market represents the achieved return above the rate of inflation.

Historically, I relied on Kroll's *2023 SBBI Yearbook* to estimate the market real return. However, Kroll's SBBI Yearbook has been discontinued. Therefore, using the same methodology, to estimate the historical real return on the market over the period 1926 to 2023, I relied on data from Morningstar Direct. The historical arithmetic average real market return over the period 1926 to 2023 to be 9.02%.[41] A current consensus for projected inflation, as measured by the GDP Deflator, is 2.20%.[42] Using these estimates, the expected market return is 11.42%.[43] The market risk premium then is the difference between the 11.42% expected market return and my 4.20% risk-free rate estimate, or 7.22%, which I referred to as a normalized market risk premium.

I also developed a current market risk premium based on the difference between the expected return on the market of 11.42% as described above and the current 30-year Treasury yield of 4.51% as shown on my Exhibit MPG-18, which produced a current market risk premium of approximately 6.91%.

A historical estimate of the market risk premium was also calculated by using data provided by Morningstar Direct. Over the period 1926 through 2023, Morningstar Direct estimated that the arithmetic average of the achieved total return on the S&P 500 was 12.16%[44] and the total return on long-term Treasury bonds was 5.62%.[45] The indicated market risk premium is 6.54% (12.16% - 5.62% = 6.54%).

The long-term Treasury bond yield of 5.62% occurred during a period of inflation of approximately 3.02%, thus implying a real return on long-term Treasury bonds of 2.60%.

---

[41] Morningstar Direct.
[42] *Blue Chip Financial Forecasts*, May 1, 2024 at 2.
[43] [(1 + 0.0902) * (1 + 0.0220) – 1] * 100.
[44] *Morningstar Direct*.
[45] *Id.*

Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO KROLL'S AND MORNINGSTAR DIRECT'S ESTIMATE?

A Kroll makes several estimates of a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2023 as well as normalized data. Using this data, Kroll estimates a market risk premium derived from the total return on the securities that comprise the S&P 500, less the income return on Treasury bonds. The total return includes capital appreciation, dividend or coupon reinvestment returns, and annual yields received from coupons and/or dividend payments. The income return, in contrast, only reflects the income return received from dividend payments or coupon yields.

Kroll's range is based on several methodologies. As noted above Kroll no longer publishes the *SBBI Yearbook.* Utilizing data through 2023 from Morningstar Direct, using the same methodology relied on by Kroll, the market risk premium is 7.32%, which is based on the difference between the total market return on common stocks (S&P 500) less the income return on 20-year Treasury bond investments over the 1926-2023 period.[46]

Second, Kroll used the Ibbotson & Chen supply-side model which produced a market risk premium estimate of 6.22%.[47] Kroll explains that the historical market risk premium based on the S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios relative to earnings and dividend growth during the period, primarily over the last 30 years. Kroll believes this abnormal P/E expansion is not sustainable. In order to control for the volatility of extraordinary events and their

[46] *Kroll*, 2023 SBBI Yearbook at 191 and *Morningstar Direct*.
[47] Kroll, 2023 SBBI Yearbook at 198-201 and Kroll Cost of Capital Navigator.

impacts on P/E ratios, Kroll takes into consideration the three-year average P/E ratio as well as the current P/E ratio.[48]

Finally, Kroll develops its own recommended equity, or market risk premium, by employing an analysis that takes into consideration a wide range of economic information, multiple risk premium estimation methodologies, and the current state of the economy by observing measures such as the level of stock indices and corporate spreads as indicators of perceived risk. Based on this methodology, and utilizing the higher of a "normalized" risk-free rate of 3.5%, Kroll concludes the current expected, or forward-looking, market risk premium is 5.5%, implying an expected return on the market of 9.0%. However, when the current market risk-free rate exceeds the normalized risk-free rate, Kroll recommends applying the current 20-year Treasury yield of approximately 4.7%. Currently, the 20-year Treasury yield is above the normalized risk-free rate. Hence, based on Kroll's methodology, the risk premium is 10.2%.[49]

Importantly, Kroll's market risk premiums are measured over a 20-year Treasury bond. Because I am relying on a projected 30-year Treasury bond yield, the results of my CAPM analysis should be considered conservative estimates for the cost of equity.

Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A The current observable beta estimate for my proxy group is approximately 0.93. However, recognizing beta estimates are currently skewed, the average normalized

[48] *Id.*

[49] Kroll, "Kroll Cost of Capital Recommendations and Potential Upcoming Changes" February 8, 2024.

beta estimate for my proxy group is reasonably estimated using the average historical beta estimate of approximately 0.77.

As shown on my Exhibit MPG-18, using a current market risk-free rate of 4.51% and a projected market return of 11.42% produces a market risk premium of 6.91%. When combined with the current beta of 0.93, this indicates a CAPM return estimate of 10.93%. I reject this CAPM because the beta estimate is abnormal and not reflective of the investment risk of utility companies.

Using a market return of 11.42%, with a projected risk-free rate of 4.20%, produces a market risk premium of approximately 7.22%. This market risk premium and risk-free rate with a normalized utility beta of 0.77, indicates a CAPM return of 9.75%

As discussed above, the current elevated betas do not reflect the low industry risk for CEHE or the utility industry as a whole. Therefore, I find a more reasonable result using a CAPM study in this case is to use a normalized utility beta, which produces a return on equity of 9.75%.

III.H. Return on Equity Summary

Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO YOU RECOMMEND FOR CEHE?

A Based on my analyses, I recommend CEHE's current market cost of equity be in the range of 9.30% to 9.70%.

TABLE 17

Return on Common Equity Summary

Description	Results
DCF	9.30%
Risk Premium	9.60%
CAPM	9.75%

My market-based return on common equity of 9.50% falls at the midpoint of my recommended range of 9.30% to 9.70%. The low-end of my range is based on my DCF analyses, and the high-end is based on my CAPM and risk premium studies.

My return on equity estimates reflect observable market evidence, the impact of Federal Reserve policies on current and expected long-term capital market costs, an assessment of the current risk premium built into current market securities, and a general assessment of the current investment risk characteristics of the regulated utility industry and the market's demand for utility securities.

III.I. Financial Integrity

Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN INVESTMENT GRADE BOND RATING FOR CEHE?

A Yes. I have reached this conclusion by comparing the key credit rating financial ratios for CEHE at my proposed return on equity and my proposed capital structure to S&P's benchmark financial ratios using S&P's new credit metric ranges.

Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT METRIC METHODOLOGY.

A S&P publishes a matrix of financial ratios corresponding to its assessment of the business risk of utility companies and related bond ratings. On May 27, 2009, S&P expanded its matrix criteria by including additional business and financial risk categories.[50]

Based on S&P's most recent credit matrix, the business risk profile categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable." Most utilities have a business risk profile of "Excellent" or "Strong."

The financial risk profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial risk profile of "Significant" or "Aggressive." Based on the most recent S&P report, CEHE has an "Excellent" business risk profile and a "Significant" financial risk profile.

Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN ITS CREDIT RATING REVIEW.

A S&P evaluates a utility's credit rating based on an assessment of its financial and business risks. A combination of financial and business risks equates to the overall assessment of CEHE's total credit risk exposure. On November 19, 2013, S&P updated its methodology. In its update, S&P published a matrix of financial ratios that defines the level of financial risk as a function of the level of business risk.

S&P publishes ranges for primary financial ratios that it uses as guidance in its credit review for utility companies. The two core financial ratio benchmarks it relies on

[50]S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to Total Debt.[51]

Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?

A I calculated each of S&P's financial ratios based on CEHE's cost of service for its regulated utility operations in its Texas service territory. While S&P would normally look at total consolidated CEHE financial ratios in its credit review process, my investigation in this proceeding is not the same as S&P's. I am attempting to judge the reasonableness of my proposed cost of capital for rate-setting in CEHE's regulated utility operations. Hence, I am attempting to determine whether my proposed rate of return will support cash flow metrics, balance sheet strength, and earnings that will in turn support an investment grade bond rating and CEHE's financial integrity.

Q DID YOU INCLUDE ANY OFF-BALANCE-SHEET ("OBS") DEBT EQUIVALENTS?

A No. In response to Question No. TIEC-RFI03-20 CEHE stated that it did not have any off-balance-sheet debt equivalents and associated interest and amortization expenses. Therefore, I did not include any off-balance sheet debt equivalents in the calculations of my adjusted debt ratio. Further, I did not include any short-term debt obligations because in response to Question TIEC-RFI03-10, the Company balance was negative. It appears that CEHE's debt issuances in March and September of 2023 were partially used for repaying existing short-term debt obligations as shown on my Exhibit MPG-19,

[51] *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

page 3 and the Company's TIEC-RFI03-10 Attachment 1.xlsx provided in response to TIEC-RFI03-10.

Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT RELATES TO CEHE.

A The S&P financial metric calculations for CEHE at a 9.50% return and my proposed capital structure are developed on Exhibit MPG-19, page 1. The credit metrics produced below, with CEHE's financial risk profile from S&P of "Significant" and business risk profile of "Excellent" will be used to assess the strength of the credit metrics based on CEHE's retail operations in the state of Texas.

The adjusted debt ratio for credit metric purposes assuming an authorized equity ratio of 42.5% is 57.5%. While this ratio is higher than the adjusted debt ratio for a typical utility with a BBB+ credit rating, it is reasonable because of CEHE's unique low business risk attributes. This allows CEHE to operate efficiently with more financial leverage and maintain its investment grade bond rating.

Based on an equity return of 9.50% and the Company's last approved common equity ratio of 42.5%, CEHE will be provided an opportunity to produce a Debt to EBITDA ratio of 4.5x. This is at the high end of S&P's "Significant" guideline range of 3.5x to 4.5x.[52]

CEHE's retail utility operations FFO to total debt coverage at a 9.50% equity return and 42.5% equity ratio is 18%, which is within S&P's "Significant" metric guideline range of 13% to 23%. This ratio is again within the FFO/total debt range that will support CEHE's credit rating.

[52] *Standard & Poor's RatingsDirect®*: "Criteria: Corporate Methodology," November 19, 2013.

I conclude that CEHE's core credit metrics ratios based on the Company's last approved capital structure and my return on equity will support its investment grade credit rating of BBB+.

Q DOES THIS FINANCIAL INTEGRITY ASSESSMENT SUPPORT YOUR RECOMMENDED OVERALL RATE OF RETURN FOR CEHE?

A Yes. As noted above, I believe my return on equity and my proposed capital structure represent fair compensation in today's very low capital market costs, and as outlined above, my overall rate of return will provide CEHE an opportunity to earn credit metrics that will support its bond rating.

IV. RESPONSE TO COMPANY WITNESS ANN E. BULKLEY

IV.A. Summary of Rebuttal

Q WHAT RETURN ON COMMON EQUITY IS CEHE PROPOSING IN THIS PROCEEDING?

A Ms. Bulkley recommends a return on equity in the range of 10.00% to 11.00% with a point estimate of 10.60%, which is slightly above the midpoint of her range. However, taking into account the affordability concern, the CEHE is proposing a return on equity of 10.40% [53] Ms. Bulkley's recommendation reflects her assessment of the current capital market conditions and the Company's business risks relative to the companies included in her proxy group.

[53] Bulkley Direct Testimony at 7.

Q ARE MS. BULKLEY'S RETURN ON EQUITY ESTIMATES REASONABLE?

A No. Ms. Bulkley's estimated return on equity is overstated and should be rejected. Ms. Bulkley's analyses produce excessive results for various reasons, including the following:

1. Her constant growth DCF results are based on unsustainably high growth rates;
2. Her CAPM is based on inflated market risk premiums;
3. Ms. Bulkley's Empirical CAPM ("ECAPM") is based on a flawed methodology; and
4. Both Ms. Bulkley's CAPM and risk premium studies are based on projected interest rates that are highly uncertain and unreliable.

Q PLEASE COMPARE YOUR RECOMMENDED RETURN ON EQUITY WITH MS. BULKLEY'S RETURN ON EQUITY ESTIMATES.

A Ms. Bulkley's return on equity estimates are summarized in Table 18 below. In the "Gorman Adjusted" Column 2, I show the results with prudent and sound adjustments to correct the flaws referenced above. With these adjustments to Ms. Bulkley's proxy group's DCF and CAPM return estimates, Ms. Bulkley's studies reflect that my 9.50% recommended return on equity for CEHE is reasonable.

TABLE 18

Bulkley's Adjusted Return on Equity Estimates

Description	Bulkley Mean / Median[1] (1)	Gorman Adjusted (2)
Constant Growth DCF		
30-Day Average	9.92% / 9.75%	8.61% / 8.87%
90-Day Average	10.02% / 9.86%	8.72% / 9.04%
180-Day Average	9.89% / 9.69%	8.54% / 8.80%
Average	9.94% / 9.77%	8.62% / 8.90%
CAPM DCF-Derived Results (*Value Line* Beta)		
Current 30-Yr Treasury (4.19%)	11.57%	10.84%
Near-Term Projected 30-Yr Treasury (4.10%)	11.56%	10.84%
Long-Term Projected 30-Yr Treasury (4.10%)	11.56%	Reject
CAPM DCF-Derived Results (Bloomberg Beta)		
Current 30-Yr Treasury (4.19%)	10.61%	9.97%
Near-Term Projected 30-Yr Treasury (4.10%)	10.59%	9.97%
Long-Term Projected 30-Yr Treasury (4.10%)	10.59%	Reject
CAPM DCF-Derived Results (Historical Beta)		
Current 30-Yr Treasury (4.19%)	10.36%	9.75%
Near-Term Projected 30-Yr Treasury (4.10%)	10.34%	9.75%
Long-Term Projected 30-Yr Treasury (4.10%)	10.34%	Reject
ECAPM	10.81% to 11.73%	Reject
Risk Premium		
Current 30-Yr Treasury (4.19%)	10.36%	9.60%
Near-Term Projected 30-Yr Treasury (4.10%)	10.31%	9.60%
Long-Term Projected 30-Yr Treasury (4.10%)	10.31%	Reject
Recommended Return on Equity	10.40%	9.50%

Sources: [1] Bulkley Direct Testimony at 39 and Exhibit AEB-2.

As shown in Table 18 above, reasonable adjustments to Ms. Bulkley's return on equity estimates support a return on equity for CEHE of 9.50%.

IV.B. Reliability of DCF and CAPM Return Estimates

Q DOES MS. BULKLEY COMMENT ON THE RELIABILITY OF MARKET-BASED MODELS TO MEASURE A FAIR RETURN ON EQUITY FOR CEHE?

A Yes. Ms. Bulkley opines that the traditional DCF and CAPM (based on current risk-free rates) analyses are not producing reasonable results at this time due to the current capital market conditions. She states that the DCF model, which relies on historical averages, is likely to understate the cost of equity for CEHE and needs to be considered with caution.[54] She also opines that it is important now to consider projected market data.[55]

Q HAS MS. BULKLEY IDENTIFIED ANYTHING DIFFERENT IN THIS CASE TO DISTINGUISH THE PROJECTIONS THAT HAVE BEEN OFFERED OVER THE LAST FIVE TO TEN YEARS BUT HAVE YET TO MATERIALIZE?

A No. Even though interest rates have recently increased due to the Federal Reserve intervention as discussed above, they have remained relatively stable. Importantly, Ms. Bulkley's own data shows that the projected interest rates are actually lower than the current interest rates. For example, in her CAPM analyses she uses a current risk-free rate of 4.19%, and near-term and long-term projected risk-free rates of 4.10%. Also, I show that interest rate projections by independent consensus economists over the next five to ten years have been moderated. This is clear evidence that today's market is embracing the sustainability of the current capital market costs. A comparison of the components of the DCF return for utilities generally to other income return investment options and growth investment options shows that the results of DCF

[54] *Id.* at 6, 29, 35, 70.
[55] *Id.* at 17-18, 29.

models are producing accurate estimates of the current market cost for utility companies.

Q PLEASE EXPLAIN WHY YOU BELIEVE THE DCF MODELS PRODUCE A REASONABLE ESTIMATE OF CEHE's MARKET COST OF COMMON EQUITY.

A The DCF model produces an economically logical estimate of the current market cost of equity and a return that is comparable with observable returns in alternative investments of comparable risk. The DCF model sums the observable dividend yield on utility stocks and then adds to that an estimate of expected growth. These two components yield DCF returns that are comparable to alternative investments, and, thus, reasonably reflect the current market cost of capital for CEHE.

Specifically, as shown on my Exhibit MPG-2 (pages 5 and 13), the 2023 dividend yield of electric (3.86%) and gas (3.68%) utility stock is lower than the 13-week average yield on "A" rated utility bonds (5.67%). Historically, the stock yield spread has been at a positive spread to that of "A" rated utility bond yields as shown on my Exhibit MPG-2 (pages 5 and 13). The stock yield spread relative to the "A" rated utility bond yield spread during the study period has converged to more normal levels relative to the last few years, where stock spreads were actually at a negative level. The current stock yield is currently below the historical utility stock versus utility bond yield spread. This suggests that the risk premium for stock investments versus utility bond investments is below the historical average. The yield component of the DCF model is comparable to alternative income investments, and produces a reasonable estimate of the current market level of income for comparable risk investments.

The growth component of the DCF return relates to earnings and stock growth over time. The growth outlook for utility stocks is not depressed generally, but rather

provides a robust outlook for dividends and stock price growth. The DCF return is not understated due to the DCF growth rate component. On the contrary, due to these high growth rate estimates relative the growth rate of the U.S. economy as described above, the DCF model produces high return estimates.

Additionally, the annual growth in dividends for utilities over the last 18 years has been approximately 3.89% for electric and 4.95% for gas as shown on my Exhibit MPG-2 (pages 6 and 14). In my constant growth DCF study presented above, the current three- to five-year forward projected growth rate for electric utilities is approximately 6.51%, which is higher than the historical growth rate for the electric and gas industry. Furthermore, utility earnings growth is expected to be considerably more robust than U.S. GDP growth, which generally is regarded as a reasonable proxy for the maximum sustainable rate of growth for investor capital markets. Going forward, long-term internal growth for equity investments is around 4.10%, as described above. Based on these factors, the growth rate component of a regulated utility DCF return is quite robust and produces a highly competitive DCF return estimate.

For these reasons, both dividend yield and growth components of a utility DCF indicate an economically logical return estimate that is competitive with comparably risky alternative investments.

IV.C. Ms. Bulkley's Constant Growth DCF Models

Q PLEASE DESCRIBE MS. BULKLEY'S CONSTANT GROWTH DCF RETURN ESTIMATES.

A Ms. Bulkley's constant growth DCF returns are developed on her Exhibit AEB-4. Ms. Bulkley's constant growth DCF models are based on consensus growth rates published by *Yahoo! Finance* and *Zacks* and individual growth rate projections made by *Value*

Line. The average and median growth rate estimates for her proxy group are approximately 5.53% and 5.23%, respectively.

She relied on dividend yield calculations based on average stock prices over three different time periods: 30-day, 90-day, and 180-day ending January 31, 2024 – all reflecting a half year of dividend growth adjustments. Ms. Bulkley's average mean and median DCF results are 9.94% and 9.77%, respectively.[56]

Q ARE THE CONSTANT GROWTH DCF RESULTS PRODUCED BY MS. BULKLEY REASONABLE?

A No. My major concern with Ms. Bulkley's DCF study is her use of unsustainable growth rate estimates. As discussed in regard to my own DCF study, the current consensus analysts' growth rates are higher than the long-term sustainable growth rate of 4.10%. Specifically, Ms. Bulkley's constant growth DCF model is based on an average growth rate of approximately 5.50% for her proxy group. This growth rate is excessive and cannot reasonably be expected to last into perpetuity, the time period which is assumed by the constant growth DCF model. As I discussed in detail above, company growth rates that exceed the growth rate of GDP in the economy in which a company provides goods and services cannot be sustained. I also discussed how over time, even with extended capital investment, growth rates will slow. Therefore, it is necessary to consider a multi-stage DCF model, which reflects a sustainable rate of growth.

[56]Bulkley Direct Testimony at 39, 70, Exhibit AEB-4.

Q IS THERE A WAY TO CORRECT MS. BULKLEY'S DCF MODEL TO PRODUCE A REASONABLE DCF RETURN?

A Yes. In Column 2 in Table 18 above and my Exhibit MPG-20, using Ms. Bulkley's data, I present the results of a multi-stage DCF model that is similar to my multi-stage model that reflects a reasonable long-term sustainable growth rate of 4.10% as discussed in regard to my own studies.

Ms. Bulkley's DCF mean and median adjusted results generally support a return on equity of around 9.00% for her proxy group. This multi-stage analysis reflects the short-term growth rate used by Ms. Bulkley in her constant growth analysis and the impact on a more economically logical DCF dividend stream that could be used to value the stocks.

IV.D. Ms. Bulkley's CAPM Studies

Q PLEASE DESCRIBE MS. BULKLEY'S CAPM ANALYSIS.

A As indicated above, the CAPM analysis is based upon the theory that the market-required rate of return for a security is equal to the risk-free rate plus a risk premium associated with the specific security. The risk premium associated with the specific security is expressed mathematically as:

B_i = Beta (measure of risk for stock)
R_m = Expected return for the market portfolio
R_f = Risk-free rate

Ms. Bulkley's CAPM model is based on proxy group average beta estimates of 0.92 from *Value Line*, 0.80 from Bloomberg, and a historical beta estimate of 0.77. She also relied on a market risk premium in the range of 8.03% to 8.12% and current risk-free rate of 4.19%, near-term projected risk-free rate of 4.10% and long-term projected risk-

free rate of 4.10%. These parameters produced a CAPM return in the range of 10.34% to 11.57%.

Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MS. BULKLEY'S CAPM STUDIES.

A I have two primary issues with Ms. Bulkley's CAPM studies. First, I believe the market risk premiums she used in all her CAPM studies are overstated because they do not reflect a reasonable estimate of the expected return on the market. Second, Ms. Bulkley relies on a projected risk-free rate based on the 30-year Treasury yield for 2025 to 2029. Ms. Bulkley's consistent reliance on projected interest rates is unreasonable and should be rejected.

Q PLEASE DESCRIBE MS. BULKLEY'S ANALYSIS WITH REGARD TO MARKET RISK PREMIUMS.

A Ms. Bulkley derived her market risk premiums by conducting a DCF analysis for the market (S&P 500). Ms. Bulkley used two market risk premium estimates of 8.03% and 8.12%, based on a DCF market return of 12.22% less the current, near-term and projected 30-year Treasury bond yields of 4.19%, 4.10%, and 4.10%, respectively.[57]

Q PLEASE DESCRIBE YOUR DISAGREEMENTS WITH REGARD TO MS. BULKLEY'S MARKET RISK PREMIUM ESTIMATES.

A Ms. Bulkley's DCF-derived market risk premium is based on a market return of 12.22%, which consists of a growth rate component of 10.51% and market-weighted dividend

[57]Exhibit AEB-5.

yield of 1.63%.[58] As discussed above with respect to my own DCF model, the DCF model requires a reasonable long-term sustainable growth rate. Ms. Bulkley's sustainable market growth rate of 10.51% is far too high to be a rational outlook for sustainable long-term market growth. This growth rate is more than two and a half times the growth rate of the U.S. GDP long-term growth outlook of 4.10%.

As a result of these unreasonable long-term market growth rate estimates, Ms. Bulkley's market DCF returns used in her CAPM analyses are inflated and not reliable. Consequently, Ms. Bulkley's market risk premiums should be given minimal weight in estimating CEHE's CAPM-based return on equity.

Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT MS. BULKLEY'S PROJECTED MARKET RETURNS?

A No. Historical data shows just how unreasonable Ms. Bulkley's projected DCF return on the market is on a going-forward basis. Applying Kroll's methodology, and using updated data from Morningstar Direct, the actual capital appreciation for the S&P 500 over the period 1926 through 2023 to have been 6.2% to 8.1%.[59] This contrasts sharply to Ms. Bulkley's own projected growth rate of the market of 10.51%.

Further, historically the geometric growth of the market of 6.2%[60] has reflected geometric growth of GDP over this same time period of approximately 6.0%.[61]

Notably, this review of historical data establishes two facts. First, historical, actual achieved growth has been substantially less than the one projected by Ms. Bulkley. Second, historical growth of the market has tracked historical growth of the U.S. GDP. Projected growth of the U.S. GDP is now closer to the 4.0% to 4.5% range.

---

[58]Exhibit AEB-7.
[59]Kroll, *2023 SBBI Yearbook* at 137 and Morningstar Direct.
[60]*Id.*
[61]U.S. Bureau of Economic Analysis, May 30, 2024.

All this information strongly supports the conclusion that Ms. Bulkley's projected growth rate on the market of 10.51% is substantially overstated. While I do not endorse the use of a historical growth rate to draw assessments of the market's forward-looking growth rate outlooks, this data can be used as a check of Ms. Bulkley's market return estimate and to show how unreasonable and inflated it is.

Q WHY DO YOU BELIEVE MS. BULKLEY'S RELIANCE ON A PROJECTED LONG-TERM RISK-FREE RATE IS UNREASONABLE?

A Ms. Bulkley relies primarily on projected yields because of her assumption that interest rates will remain at the current high levels.[62] This bond yield is largely based on projections of long-term Treasury bond yields five years out (2025-2029). In fact, her own data shows the opposite. Ms. Bulkley's long-term projected risk-free rate of 4.10% is lower than the current risk-free rate of 4.19% and the same as the near-term projected risk-free rate of 4.10%. The long-term projections are highly uncertain, and may not reflect the cost of capital in the test year, the period in which rates determined in this proceeding will largely be in effect. As such, the market risk premium should be based on observable bond yields in the market today. Alternatively, the market risk premium should at most reflect bond yield projections through the rate-effective period in this case.

Q DO YOU HAVE ANY FURTHER COMMENTS REGARDING MS. BULKLEY'S CAPM ANALYSES?

A Yes. Ms. Bulkley recognizes the recent increase in utility betas and she offers an alternative CAPM analysis relying on historical or long-term average *Value Line* beta

[62]Bulkley Direct Testimony at 17-18, 29.

estimates for the period 2013 to 2023, which produces a return on equity that is about 100 basis points lower than the CAPM returns produced by the current beta. Importantly, Ms. Bulkley also used Bloomberg betas based on 10 years of weekly returns, which produced betas much lower than the *Value Line* betas affected by the recent market anomalies triggered at the onset of the COVID-19 pandemic as described above.

Q CAN MS. BULKLEY'S CAPM ANALYSIS BE REVISED TO REFLECT A MORE REASONABLE MARKET RISK PREMIUM?

A Yes. Using my updated forward-looking risk-free rate of around 4.20%, her average current *Value Line* and Bloomberg beta estimates of 0.92 and 0.80,[63] and my market return of around 11.42%, Ms. Bulkley's CAPM will be 10.79% and 9.84%, respectively.[64] Using the same parameters and Ms. Bulkley's historical *Value Line* beta of 0.77,[65] her alternative CAPM will produce returns of approximately 9.70%.[66] As discussed above in regard to my own CAPM analysis, the current betas produce CAPM returns that do not correspond to the low risk of the regulated utilities. Therefore, I find the results of Ms. Bulkley's revised CAPM of 9.70% more reliable.

IV.E. Ms. Bulkley's ECAPM Studies

Q PLEASE DESCRIBE MS. BULKLEY'S ECAPM ANALYSIS.

A Ms. Bulkley relies on empirical tests of the traditional CAPM model to modify it in such a way to attempt to *correct* the original CAPM for some deficiencies inherent in the

[63]Exhibit AEB-5.
[64]4.20% + 0.92 x (11.42% - 4.20%) = 10.84% and 4.20% + 0.80 x (11.42% - 4.20%) = 9.97%
[65]Exhibit AEB-6.
[66]4.20% + 0.77 x (11.42% - 4.20%) = 9.75%.

original model. Empirical tests show that the expected return line, or security market line, predicted by the CAPM is not as steep as the model would have us believe. In other words, the traditional CAPM understates the expected return for securities with betas less than 1, and overstates the expected return for securities with betas greater than 1. In order to correct for this empirical finding, Ms. Bulkley modifies the traditional CAPM model as follows:

$$R_i = R_f + 0.75 \times B_i \times (R_m - R_f) + 0.25 \times B_m \times (R_m - R_f)$$

R_i = Required return for stock *i*
R_f = Risk-free rate
R_m = Expected return for the market portfolio
B_m = Beta (measure of market volatility)
B_i = Beta (measure of stock price volatility)

Q WHAT ISSUES DO YOU TAKE WITH MS. BULKLEY'S ECAPM ANALYSIS?

A The principal issue I have with Ms. Bulkley's ECAPM analysis is her use of an adjusted beta as published by *Value Line*. The impact of Ms. Bulkley's ECAPM adjustments increases her beta estimate range of 0.77 to 0.92 to a range of 0.83 to 0.94.[67] The weighting adjustments applied in the ECAPM are mathematically the same as adjusting beta since the inputs are all multiplicative as shown in the formula above. In other words, Ms. Bulkley's adjustment to the betas is duplicative of the adjustments the ECAPM already makes to correct for any shortcomings of the traditional CAPM. As a result, her model produces overstated results.

Further, Ms. Bulkley's reliance on an adjusted *Value Line* beta in her ECAPM study is inconsistent with the academic research that I am aware of supporting the development of the ECAPM.[68] The end result of using adjusted betas in the ECAPM

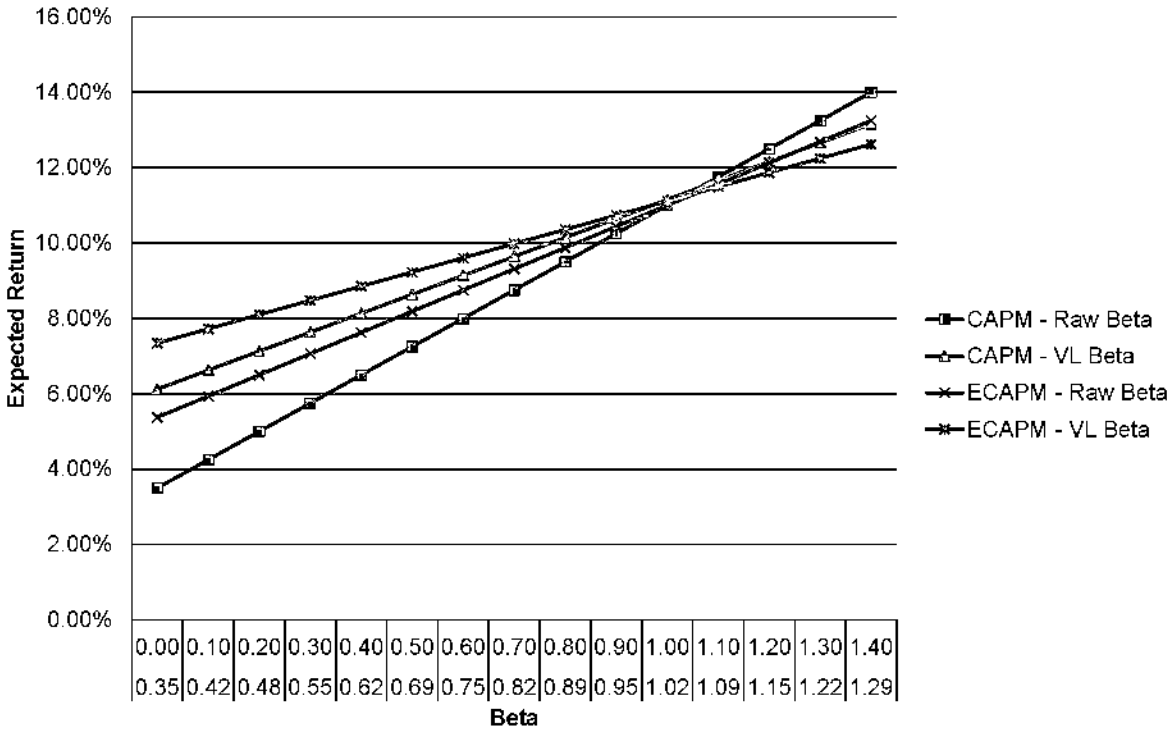
[67] 75% x 0.77+ 25% x 1 = 0.83 and 75% x 0.92 + 25% x 1 = 0.94.

[68] *See* Black, Fischer, "Beta and Return," *The Journal of Portfolio Management,* Fall 1993, 8-18; and Black, Fischer, Michael C. Jensen and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," 1972.

is essentially an expected return line that has been flattened by two adjustments. In other words, the vertical intercept has been raised twice and the security market line has been flattened twice: once through the adjustments *Value Line* made to the raw beta, and again by weighting the risk-adjusted market risk premium as Ms. Bulkley has done. In addition to the many adjustments employed by Ms. Bulkley, she further increases the intercept and flattens the security market line by using projected long-term Treasury yields that are at odds with current market expectations and inconsistent with the Federal Reserve's projections and monetary policy.

Ms. Bulkley goes over the theory of the ECAPM at pages 73-74 of her Direct Testimony. The ECAPM with adjusted betas has the effect of increasing CAPM return estimates for companies with betas less than 1, and decreasing the CAPM return estimates for companies with betas greater than 1. I have modeled the expected return line resulting from the application of the various forms of the CAPM/ECAPM below in Figure 6.

FIGURE 6
Variations of the CAPM



Along the horizontal axis in Figure 6 above, I have provided the raw unadjusted beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown in Figure 6 above, the CAPM using a *Value Line* beta compared to the CAPM using an unadjusted beta shows that the *Value Line* beta raises the intercept point and flattens the slope of the security market line. As shown in the figure above, the two variations with the most similar slope are the CAPM with the *Value Line* beta, and the ECAPM with a raw beta. This evidence shows that the ECAPM adjustment has a very similar impact on the expected return line as a *Value Line* beta. Another observation that can be made from the figure above is the magnifying effect that the ECAPM using a *Value Line* beta has on raising the vertical intercept and flattening the slope relative to all other variations. It is unreasonable to use an adjusted beta within an ECAPM because

it unjustifiably alters the security market line and materially inflates a CAPM return for a company with a beta less than 1.

Q IN YOUR EXPERIENCE, IS MS. BULKLEY'S PROPOSED USE OF AN ADJUSTED BETA IN AN ECAPM STUDY CONSISTENT WITH WIDELY ACCEPTED PRACTICES IN THE REGULATORY FIELD?

A No. In my experience, regulatory commissions generally disregard the use of the ECAPM, particularly when an adjusted beta is used in the model. For example, the Illinois Commerce Commission ("ICC") has stated the following regarding the ECAPM:

> The Commission cannot recall a proceeding in which it relied upon the ECAPM in establishing the cost of common equity for a utility. In the instant proceeding, the record supports a finding that use of adjusted betas in the ECAPM is inappropriate. As Staff witness Ms. Freetly explained, by using adjusted betas she already effectively transformed her Traditional CAPM into an ECAPM. Therefore, including an additional beta adjustment in the ECAPM model would result in inflated estimates of the samples' cost of common equity.[69]

Similarly, in a more recent Nicor Gas rate case the ICC stated:

> The Company also used ECAPM analyses and bond yield plus risk premium models to determine an ROE, which the Commission has also historically rejected.[70]

The California Public Utilities Commission has even more recently noted:

> We are not persuaded that ECAPM produces a result that should be considered. Electric utilities in general have low betas. Adjusting betas upward guarantees a higher ROE.[71]

---

[69]Illinois Commerce Commission, Docket No. 11-0767, Illinois-American Water Company, Order at 109, September 19, 2012.

[70]Illinois Commerce Commission, Docket No. 21-0098, Northern Illinois Gas Company d/b/a Nicor Gas Company, Final Order at 94, November 18, 2021.

[71]Public Utilities Commission of the State of California Application 22-04-008 et al., Decision Addressing Test Year 2023 Cost Of Capital For Pacific Gas And Electric Company, Southern California Edison, Southern California Gas Company, And San Diego Gas & Electric Company, at 23, December 19, 2022.

Therefore, the Commission should reject Ms. Bulkley's ECAPM, which as described above is based on adjusted beta estimates.

IV.F. Ms. Bulkley's Bond Yield Plus Risk Premium ("RP")

Q PLEASE DESCRIBE MS. BULKLEY'S RP METHODOLOGY.

A As shown on her Exhibit AEB-8, Ms. Bulkley constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to interest rates. She estimates an average equity risk premium of 5.38% over the period January 1980 through January 31, 2024.[72] She then applies a regression formula to the current, near-term, and long-term projected 30-year Treasury bond yields of 4.19%, 4.10%, and 4.10%, respectively, to produce equity risk premiums of 6.17%, 6.21%, and 6.21%, respectively. Thus, she calculates return on equity estimates of 10.36%, 10.31%, and 10.31%, respectively.[73]

Q DO YOU AGREE WITH MS. BULKLEY'S RP METHODOLOGY?

A No. Ms. Bulkley contends that there is a simplistic inverse relationship between equity risk premiums and interest rates without any regard to differences in investment risk. Academic studies are clear that interest rates are a relevant factor in assessing current market equity risk premiums, but the risk premium ties more specifically to the market's perception of investment risk of debt and equity securities, and not simply changes in interest rates.

More specifically, while academic studies have shown that, in the past, there has been an inverse relationship among these variables, researchers have found that

[72]Bulkley Direct Testimony at 76.
[73]Exhibit AEB-8.

the relationship changes over time and is influenced by changes in perception of the risk of bond investments relative to equity investments, and not simply changes to interest rates.[74]

In the 1980s, equity risk premiums were inversely related to interest rates, but that was likely attributable to the interest rate volatility that existed at that time. As such, when interest rates were more volatile, perceptions of bond investment risk increased relative to the investment risk of equities. This changing investment risk perception caused changes in equity risk premiums.

In today's marketplace, interest rate volatility is not as extreme as it was during the 1980s.[75] Nevertheless, changes in the perceived risk of bond investments relative to equity investments still drive changes in equity premiums and cannot be measured simply by observing nominal interest rates. Changes in nominal interest rates are heavily influenced by changes to inflation outlooks, which also change equity return expectations. As such, the relevant factor needed to explain changes in equity risk premiums is the relative changes between the risk of equity versus debt investments, and not simply changes in interest rates.

Importantly, Ms. Bulkley's analysis also ignores investment risk differentials. She bases her adjustment to the equity risk premium exclusively on changes in nominal interest rates. This is a flawed methodology that does not produce accurate or reliable risk premium estimates.

---

[74]Robert S. Harris & Felicia C. Marston, "The Market Risk Premium: "Expectational Estimates Using Analysts' Forecasts," *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13; Eugene F. Brigham, Dilip K. Shome, & Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 42-43.

[75]"The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 44.

Q DO YOU BELIEVE THAT THE REGRESSION STUDY USED BY MS. BULKLEY IN HER RP DEMONSTRATES AN ACCURATE CAUSE AND EFFECT BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS?

A No. Because the returns on equity she uses are authorized by commissions, those returns are not directly adjusted by market forces. While I also use commission-authorized returns as a proxy for market-required returns, it is significant that Ms. Bulkley uses a simple regression analysis that tries to describe and gauge equity risk premiums based on only changes in interest rates.

Equity risk premiums can move based on changes in market conditions that can impact both equity returns and bond returns in a like manner. This simplistic regression analysis of equity risk premiums and interest rates ignores these relevant market factors in describing the current market-required equity risk premium.

Q CAN MS. BULKLEY'S RP ANALYSIS BE REVISED TO REFLECT CURRENT PROJECTIONS OF TREASURY YIELDS?

A Yes. Ms. Bulkley's basic and incomplete notion that equity risk premiums change only with changes to nominal interest rates should be rejected. Therefore, disregarding her inverse relationship methodology and adding her average equity risk premium over Treasury bonds of 5.38% to an updated near-term projected Treasury yield of 4.20% published by independent economists, produces an RP of approximately 9.58%, rounded to 9.60%.

IV.G. Ms. Bulkley's Consideration of Additional Risks

Q DID MS. BULKLEY DISCUSS CONSIDERATION OF ADDITIONAL BUSINESS RISKS TO JUSTIFY HER RETURN ON EQUITY?

A Yes. Ms. Bulkley believes that the Company is exposed to several additional risks that should be accounted for: (1) capital requirements, and (2) regulatory risk, and (3) customer concentration. Ms. Bulkley believes that these additional risks should be considered in determining a fair return on equity for CEHE.[76]

Q DO YOU BELIEVE THAT CEHE FACES RISKS THAT ARE COMPARABLE TO THE RISKS FACED BY MS. BULKLEY'S AND YOUR PROXY GROUP COMPANIES?

A The business risks identified by Ms. Bulkley are already considered in the assigning of a credit rating by the various credit rating agencies.

As shown on my Exhibit MPG-4, the average S&P credit rating for my proxy group of BBB+ is identical to CEHE's credit rating from S&P. The relative risks discussed on pages 42-61 of Ms. Bulkley's direct testimony are already incorporated in the credit ratings of the proxy group companies. Indeed, S&P and other credit rating agencies go to great lengths and detail in assessing a utility's business risk and financial risk in order to evaluate total investment risk. This total investment risk assessment of CEHE, in comparison to the proxy group, is fully absorbed into the market's perception of the proxy group companies' risk. Therefore, the proxy group fully captures the investment risk of CEHE.

[76]Bulkley Direct Testimony at 42-61.

Q HOW DOES S&P ASSIGN CORPORATE CREDIT RATINGS FOR REGULATED UTILITIES?

A In assigning corporate credit ratings, the credit rating agency considers both business and financial risks. Business risks, among others, include a company's size, competitive position, generation portfolio, and capital expenditure programs, as well as consideration of the regulatory environment, current state of the industry, and the economy as whole. Specifically, S&P states:

> To determine the assessment for a corporate issuer's business risk profile, the criteria combine our assessments of industry risk, country risk, and competitive position. Cash flow/leverage analysis determines a company's financial risk profile assessment. The analysis then combines the corporate issuer's business risk profile assessment and its financial risk profile assessment to determine its anchor. In general, the analysis weighs the business risk profile more heavily for investment-grade anchors, while the financial risk profile carries more weight for speculative-grade anchors.[77]

As mentioned above, regulatory risk is a key credit rating consideration by credit analysts in assigning utilities' business risk, which is fully reflected in the utility's bond rating. Ms. Bulkley's focus on a limited number of investment risk characteristics, while ignoring many other significant risk factors such as actual financial performance of Texas utilities generally, and CEHE specifically, renders her analysis incomplete and her findings inconclusive. Credit analysts consider all these risk factors, along with all other risk factors, in assigning a bond rating. Therefore, including companies that have similar investment risk to CEHE by reviewing a bond rating of the proxy group companies is a more robust and reliable assessment of total investment risk, including these specific line item risks identified by Ms. Bulkley in selecting comparable risk proxy group companies.

[77] *Standard & Poor's RatingsDirect®:* "Criteria/Corporates/General: Corporate Methodology," November 19, 2013.

Q PLEASE DESCRIBE THE RELATIONSHIP BETWEEN THE RISK REDUCTION FACTORS AND CONSIDERATION OF A UTILITY'S COST OF CAPITAL.

A The utility operating risk factors identified by Ms. Bulkley are mitigated through regulatory mechanisms which are designed to improve the likelihood that a utility, if operated economically and efficiently, can fully recover its cost of providing service. These regulatory mechanisms improve the likelihood, or reduce the operating risk, that the Company will be able to earn its authorized rate of return and fully recover its cost of providing service to its customers.

Reducing the uncertainty of earning a utility's rate of return reduces its investment risk because such risk reduction enhances a utility's assurance that it is growing investors' stock value by producing sufficient earnings to pay dividends and to retain sufficient earnings to fund reinvestments and grow the utility's earnings and dividend-paying ability over time. These are the primary investment targets for utility investors.

For these reasons, regulatory mechanisms that reduce the Company's risk of not fully recovering its cost of service reduce its investment risk because these mechanisms stabilize the Company's earnings and dividends and make the Company's earnings growth and dividends more predictable and stable.

Q PLEASE DESCRIBE THE EXTENT TO WHICH RISK REDUCTION FACTORS ARE AVAILABLE TO CEHE.

A In addition to having no commodity risk, CEHE utilizes transmission cost of service ("TCOS") and distribution cost recovery factor ("DCRF") rider adjustment mechanisms that allow the Company to recover its investments in transmission and distribution systems between rate cases.