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SOAH DOCKET NO. 473-22-04394
PUC DOCKET NO. 53719

APPLICATION OF ENTERGY TEXAS, INC. 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

October 26, 2022

BRUBAKER & ASSOCIATES, INC.

SOAH DOCKET NO. 473-22-04394
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APPLICATION OF ENTERGY TEXAS, INC. 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. 473-22-04394, Public Utility Commission of Texas Docket No. 53719.

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 26th day of October, 2022.

SALLY D. WILHELMS
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Aug. 5, 2024
Commission # 20078060

Notary Public

SOAH DOCKET NO. 473-22-04394
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APPLICATION OF ENTERGY TEXAS, INC. 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 Entergy Texas, Inc.'s ("ETI" 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 ETI'S TESTIMONY MEAN THAT YOU AGREE WITH ETI'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, ETI's position on such issues.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON RETURN ON EQUITY.

A I recommend the Public Utility Commission of Texas (the "Commission") award ETI a return on common equity in the range of 9.00% to 9.80%, with a midpoint of 9.40%. This return on equity reflects ETI's current market cost of equity. I recommend the Commission approve a return on equity that reflects fair compensation for ETI's level of investment risk, and impose tariff rate charges on customers that are no more expensive than necessary to fairly compensate the Company and maintain its financial integrity and credit standing.

Q WHAT IS YOUR RECOMMENDED OVERALL RATE OF RETURN FOR ETI IN THIS CASE?

A As shown on my Exhibit MPG-1, based on my recommended return on equity and the Company's proposed capital structure, ETI's rate of return is 6.52%.

Q WHAT IS THE REVENUE REQUIREMENT IMPACT OF YOUR RECOMMENDED RETURN ON EQUITY?

A Adjusting the return on equity to 9.4% from the Company's requested 10.8% reduces the Texas retail revenue requirement by $40.0 million. For every 10 basis point adjustment to the return on equity, the annual revenue requirement impact is $2.86 million.

Q PLEASE DESCRIBE HOW YOUR TESTIMONY IS ORGANIZED.

A First, I provide observable evidence on current market costs and regulatory support for financial integrity, credit standing, and access to capital. Second, I estimate ETI's current market cost of equity using market-based cost of capital models to estimate the current market-required return on equity that investors demand to assume the investment risk similar to ETI. Third, I rely on my recommended rate of return and the Company's proposed capital structure to develop credit metrics, which demonstrate that my recommended rate of return for ETI will support its investment grade bond rating, and access to capital. Finally, I respond to ETI witness Ms. Ann Bulkley and her recommended return on equity in the range of 9.95% to 11.10%, with a midpoint of 10.50%. Ms. Bulkley recommends a 10.80% return on equity, which includes a performance return on equity adder of 30 basis points that is recommended by ETI witness Jess K. Totten.[1] I comment on Ms. Bulkley's analysis and show that her recommended return on equity substantially exceeds the current market cost of capital for companies with investment risk similar to that of ETI. Ms. Bulkley's recommended return on equity unnecessarily inflates ETI's claimed revenue deficiency, and would

[1] Bulkley Direct Testimony at 4.

increase rates beyond a just and reasonable level. TIEC witness Charles Griffey addresses why ETI's proposed return on equity performance adder should be rejected.

II. RATE OF RETURN

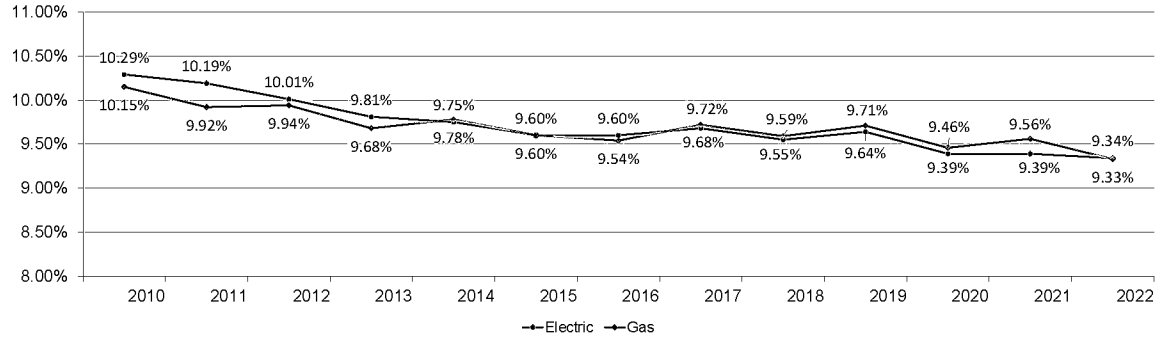
II.A Utility Industry Authorized Returns on Equity, Access to Capital, and Credit Strength

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 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 a backdrop, it is significant to observe that industry authorized returns on equity for electric and gas utilities have ranged from 9.33% to 9.78% for the period from 2014 to 2022 to date and, since 2020, authorized returns on equity have averaged below 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**
<= 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%	50.0%
> 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%	50.0%
Gas Utilities													
<= Average	56.4%	31.3%	45.7%	47.6%	50.0%	50.0%	53.8%	70.8%	47.5%	51.5%	51.4%	46.5%	55.6%
> Average	43.6%	68.8%	54.3%	52.4%	50.0%	50.0%	46.2%	29.2%	52.5%	48.5%	48.6%	53.5%	44.4%

Source and Notes:
[1] *S&P Global Market Intelligenc*e, RRA Regulatory Focus, Major Rate Case Decisions -- January - June 2022, July 27, 2022, p. 3.
[2] Download from S&P Global Market Intelligence, August 1, 2022.
* Electric 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 11, 2022 Utility Capital Expenditures Update report, *RRA Financial Focus*, a division of S&P Global Market Intelligence, made several relevant comments about utility investments generally:

- Projected 2022 capital expenditures for the 47 energy utilities included in the Regulatory Research Associates representative sample of the publicly traded U.S.-based utility universe currently exceeds $154.2 billion, well above the $131.8 billion of actual investment spent in 2021 by the same companies. Much of the increased outlays are [sic] driven by federal support for infrastructure investment that was approved by congress [sic] and signed into law late in 2021.

- Investment across these 47 energy utilities may rise 15% or more by the close of 2022.

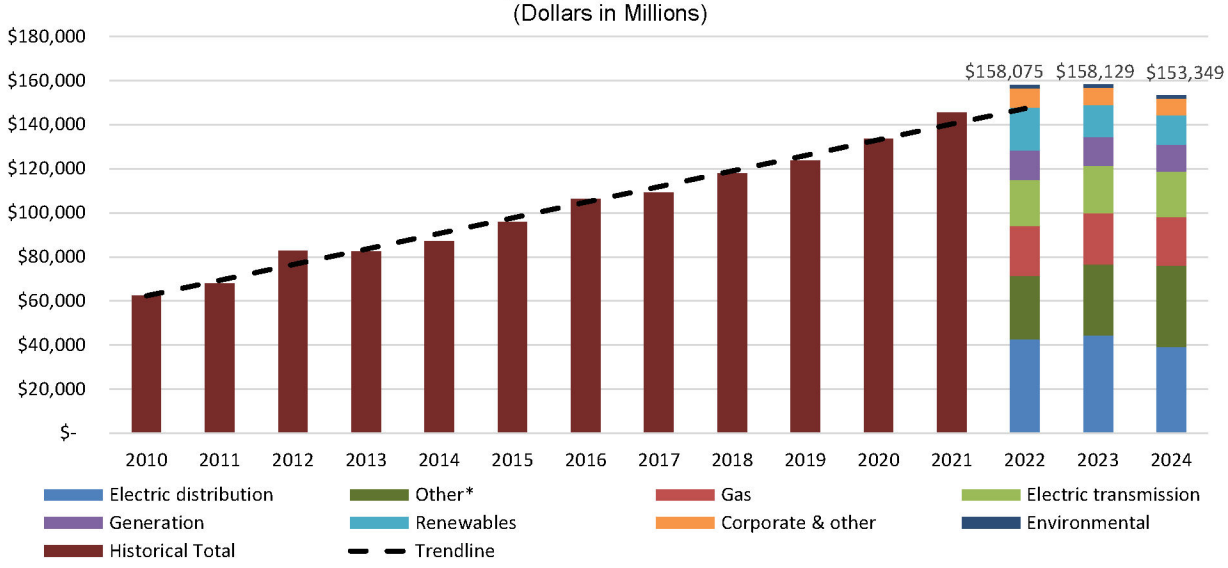
- Across the small investor-owned water utility industry, total capex is forecast to increase 7.3% in 2022 to approximately $3.9 billion. The segment experienced modest growth of 4.9% in 2021.

- 2021 energy utility capital expenditures marked a record high, about 1.3% above the $130.1 billion invested in 2020. Investment in 2021 might have been even higher without the multiple supply chain issues associated with the ongoing coronavirus pandemic.[2]

As shown in Figure 2 below, capital expenditures for electric and natural gas utilities have increased considerably over the period 2021 into 2022, and the forecasted capital expenditures remain elevated through the end of 2023, albeit falling below current levels in 2024.

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, April 11, 2022, 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.

[2] *S&P Global Market Intelligence, RRA Financial Focus*: "Utility Capital Expenditures Update," April 11, 2022, at 5.

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.

Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY EQUITY SECURITIES?

A Yes. Robust valuations are an indication that utilities can sell securities at high prices, which is a strong indication that they 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 extending 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 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 electric 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 are competitive returns.

For example, my Exhibit MPG-2 shows a *Value Line* electric utility industry price-to-earnings ratio of 20.34x, compared to a 21-year average price-to-earnings ratio of around 17.25x (Page 1). The current price-to-earnings ratio for gas utilities is 19.32x relative to the 17-year average price-to-earnings ratio of 18.42x (Page 11). This strong price-to-earnings performance indicates stock prices relative to earnings have been robust. Robust stock prices, or higher stock prices, indicate lower cost of capital.

The market price-to-cash flow for electric utilities is currently 9.11x, compared to the 21-year average of 7.54x (Page 2). The market price-to-cash flow for gas utilities is currently 9.71x, compared to the 17-year average of 9.60x (Page 11). Again, high stock prices in relationship to utility cash flows indicate investors are willing to accept lower rates of return to invest in utility stocks.

Finally, the current market-to-book ratio for the electric utility industry is 2.00x, compared to the 18-year average of 1.71x (Page 3). The current market-to-book ratio for the gas utility industry is 1.79x, which is comparable to the 17-year average of 1.82x (Page 11). Again, the market-to-book ratio indicates robust stock prices and low cost of capital to utilities.

The utility industry exhibits strong valuations in the marketplace, which is a clear indication that utilities have access to external capital markets under favorable conditions and at low costs.

Q PLEASE DESCRIBE THE CREDIT STRENGTH AND FINANCIAL INTEGRITY OF THE REGULATED UTILITY INDUSTRY.

A 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 or not 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 factors 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 pandemic, and up through current times. As shown below in Table 1, from approximately 2017 through 2022, over 80% of the regulated utility industry has a bond rating of BBB+ or stronger.

TABLE 1

S&P Ratings by Category
Electric Utility Subsidiaries
(Year End)

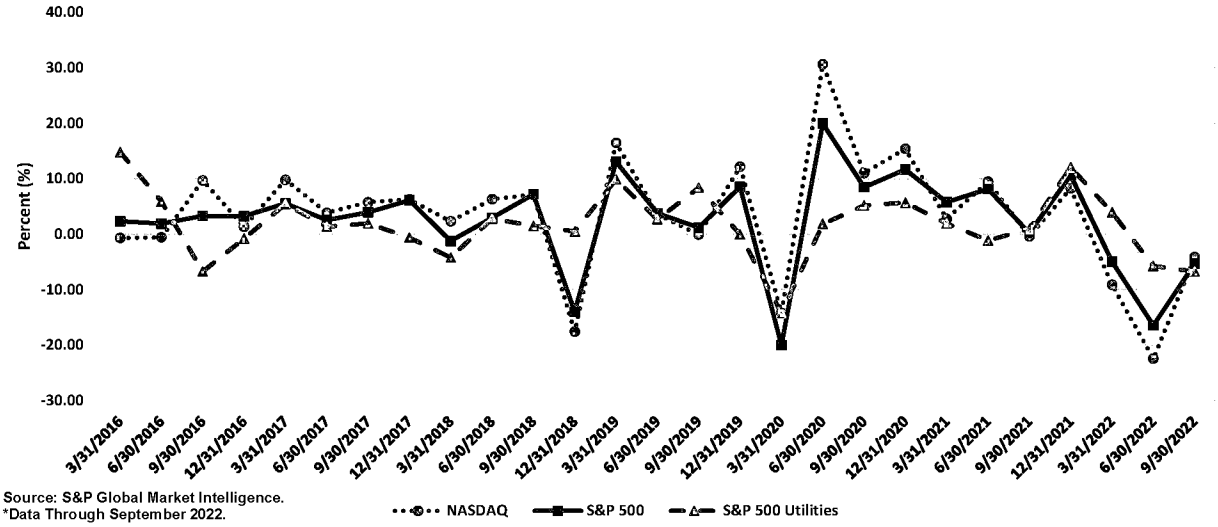
Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
A or higher	12%	12%	11%	13%	13%	13%	10%	10%	8%	14%	14%	10%	10%
A-	20%	19%	22%	26%	26%	34%	43%	52%	54%	54%	53%	37%	38%
BBB+	24%	28%	28%	25%	28%	24%	32%	21%	22%	18%	19%	35%	35%
BBB	26%	24%	22%	26%	23%	18%	4%	7%	13%	12%	3%	16%	16%
BBB-	16%	15%	17%	11%	11%	11%	11%	11%	2%	1%	1%	0%	0%
Below BBB-	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	10%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
BBB+ or Above	56%	59%	61%	63%	67%	71%	85%	82%	84%	87%	86%	83%	83%

Source: S&P CAPITAL IQ and Market Intelligence, downloaded 9/30/22.
Note: Subsidiary ratings used.

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

A As shown in Figure 3 below, S&P Global Market Intelligence ("MI") has recorded gas and electric utility stock price performance compared to overall market performance.

FIGURE 3
Quarterly Price Returns



Source: S&P Global Market Intelligence.
*Data Through September 2022.

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

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

A Observable market evidence is quite clear that capital market costs are near historically low levels. While authorized returns on equity have fallen to the mid-9% range, utilities continue to have access to large amounts of external capital even as they are 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 ETI.

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 ("FRS") 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 September 21, 2022 press release, noted that recent indicators point to modest growth in spending and production, while job gains have been robust and the unemployment rate has remained low. Meanwhile inflation remains elevated, reflecting supply and demand imbalances related to the pandemic, higher food and energy prices and broader price pressures. The Federal Reserve also noted that Russia's war against Ukraine is causing tremendous human and economic hardship, which is placing additional upward pressure on inflation and impacting global economic activity. The Federal Reserve noted that it is highly attentive to inflation risk.[3]

With this as a backdrop, the Federal Reserve announced that it will continue to seek maximum employment and a target inflation rate of 2% over the long-term. In support of those goals, the Federal Reserve announced it will raise the target range of the Federal Funds Rate ("FFR") from 2.50% to 3.25%, and that it anticipates ongoing increases to the FFR to achieve the target 2.0% inflation rate. The Federal Reserve also stated that it will continue to reduce its holding of Treasury securities, agency debt securities and agency mortgage backed securities, as outlined in the Size of The

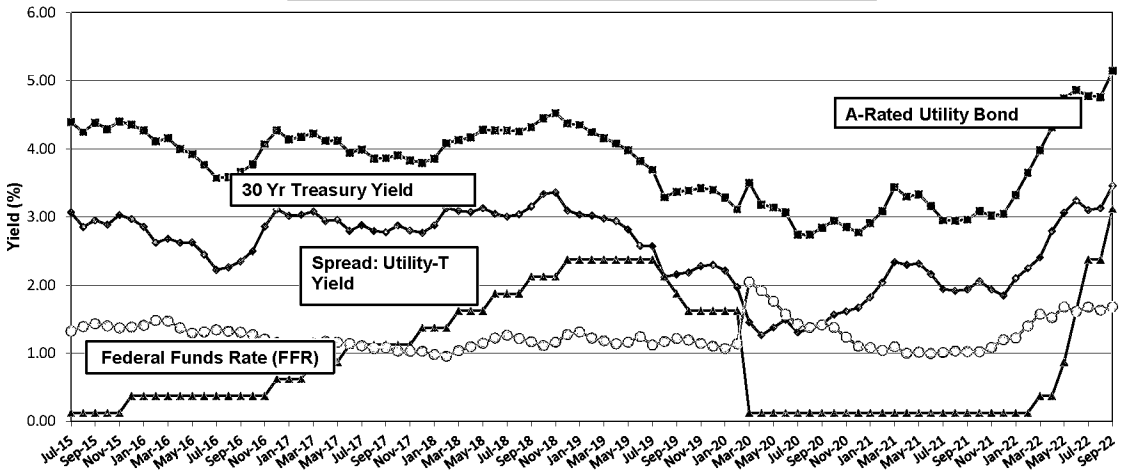
[3] Federal Reserve press release, September 21, 2022.

Federal Reserve Balance Sheet statement issued in May 2022. In that statement, the Federal Reserve outlined its intention to reinvest cash proceeds from dividends and coupons, but to gradually reduce its balance sheet holdings of these securities over time and without disrupting markets. The Federal Reserve reiterated its strong commitment to returning inflation to the 2% rate objective.[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	11	September 2019	1.75	→	2.00
2	December 2016	0.50	→	0.75	12	October 2019	1.50	→	1.75
3	March 2017	0.75	→	1.00	13	March 2020	1.00	→	1.25
4	June 2017	1.00	→	1.25	14	March 2020	0.00	→	0.25
5	December 2017	1.25	→	1.50	15	March 2022	0.25	→	0.50
6	March 2018	1.50	→	1.75	16	May 2022	0.75	→	1.00
7	June 2018	1.75	→	2.00	17	June 2022	1.50	→	1.75
8	September 2018	2.00	→	2.25	18	July 2022	2.25	→	2.50
9	December 2018	2.25	→	2.50	19	September 2022	3.00	→	3.25
10	August 2019	2.00	→	2.25					

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 Reserve's recent increase to the federal Funds Rate, currently at a 3.00% to 3.25% range, resulted in a higher Federal Funds Rate than the

[4] *Id.*

rate prior to the economic effects of the worldwide pandemic starting around March/April of 2020.

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

A Yes. In its most recent report, *Blue Chip Financial Forecasts* outlines consensus economists' projections that reflect a rising risk of inflation, and likely continued monetary tightening by the Federal Reserve to fight inflation. *Blue Chip Financial Forecasts* indicated the likelihood that the Federal Reserve would increase the Federal Funds Rate in September as an effort to fight inflationary pressure. It also noted that there is a high probability of the economy slowing down, possibly entering a recession, but also that that there is a continued strong labor market. These outlooks and projections of short-term Federal Funds Rate levels, long-term Treasury bond 30-year maturities, and of the U.S. economic outlook more generally suggest inflation will impact interest rates over the intermediate term but is expected to moderate over the long term. All of this is illustrated in a comparison of interest rate and GDP projections over time as developed in Table 2 below.

TABLE 2

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

Publication Date	3Q 2021	4Q 2021	1Q 2022	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023
Federal Funds Rate										
Oct-21	0.1	0.1	0.1	0.1	0.1	0.2	0.3			
Nov-21	0.1	0.1	0.1	0.1	0.1	0.3	0.4			
Dec-21	**0.1**	0.1	0.1	0.1	0.3	0.4	0.6			
Jan-22		0.1	0.1	0.3	0.5	0.7	0.9	1.1		
Feb-22		0.1	0.2	0.5	0.8	1.0	1.3	1.5		
Mar-22		**0.1**	0.2	0.6	1.0	1.3	1.6	1.8		
Apr-22			0.1	0.8	1.4	1.8	2.2	2.4	2.6	
May-22			0.1	1.0	1.7	2.2	2.6	2.9	3.0	
Jun-22			**0.1**	1.0	1.9	2.4	2.8	3.0	3.1	
Jul-22				0.7	2.4	3.1	3.5	3.5	3.5	3.4
Aug-22				0.8	2.5	3.2	3.5	3.5	3.4	3.3
Sep-22				**0.8**	2.5	3.4	3.6	3.6	3.5	3.4
T-Bond, 30 yr.										
Oct-21	1.9	2.2	2.3	2.4	2.5	2.6	2.7			
Nov-21	1.9	2.2	2.3	2.4	2.5	2.6	2.7			
Dec-21	**1.9**	2.1	2.2	2.3	2.5	2.6	2.7			
Jan-22		2.0	2.1	2.2	2.4	2.5	2.7	2.8		
Feb-22		2.0	2.2	2.3	2.5	2.6	2.7	2.8		
Mar-22		**2.0**	2.2	2.5	2.6	2.7	2.9	3.0		
Apr-22			2.3	2.6	2.8	3.0	3.2	3.3	3.3	
May-22			2.3	2.9	3.1	3.2	3.4	3.5	3.5	
Jun-22			**2.3**	3.0	3.3	3.4	3.5	3.6	3.6	
Jul-22				3.0	3.5	3.6	3.7	3.8	3.8	3.8
Aug-22				3.0	3.2	3.4	3.5	3.5	3.5	3.5
Sep-22				**3.0**	3.1	3.4	3.5	3.6	3.6	3.6
GDP Price Index										
Oct-21	4.2	2.9	2.5	2.5	2.5	2.5	2.4			
Nov-21	5.7	3.4	2.7	2.6	2.5	2.4	2.3			
Dec-21	**5.9**	4.6	3.4	2.8	2.7	2.5	2.5			
Jan-22		4.6	3.7	3.1	2.8	2.6	2.5	2.5		
Feb-22		6.9	4.3	3.4	3.0	2.8	2.6	2.5		
Mar-22		**7.1**	4.8	3.8	3.1	2.8	2.6	2.5		
Apr-22			4.8	5.1	3.7	3.0	2.8	2.6	2.6	
May-22			8.0	5.6	4.0	3.4	3.0	2.8	2.6	
Jun-22			**8.1**	5.9	4.6	3.5	3.1	2.8	2.7	
Jul-22				5.9	5.2	3.9	3.4	2.8	2.7	2.6
Aug-22				8.7	5.3	3.8	3.3	2.7	2.7	2.6
Sep-22				**8.9**	4.9	4.1	3.3	2.7	2.7	2.5

Source and Note:
Blue Chip Financial Forecasts, October 2021 through September 2022.
Actual Yields in Bold.

Further, the 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
2018			
Q1	3.02%	3.63%	
Q2	3.09%	3.80%	4.2% - 4.4%
Q3	3.07%	3.73%	
Q4	3.27%	3.67%	3.9% - 4.2%
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%

Source and Note:
Blue Chip Financial Forecasts, January 2015 through August 2022.
*Average of all 3 reports in Quarter.

As outlined in Table 3 above, the outlook for increases in interest rates has jumped more recently relative to 2020 but is still relatively modest compared to time periods prior to the beginning of the worldwide pandemic. Indeed, today's relatively low capital market costs are expected to prevail at least in the short-term, i.e., over the next five to ten years. While there may be some upward movement in the cost of capital, that upward movement is not expected to be significant. Importantly, the U.S. economy has largely recovered from the severe effects of the COVID-19 pandemic experienced in 2020. Capital markets continue to perform in a rational and economically logical manner at lower capital costs for safe investment sectors such as the utility industry.

Moreover, while economists are projecting a modest increase in interest rates relative to those published in the past, these projections of increases in interest rates are, at best, uncertain. But more importantly, the projected increases are relatively modest compared to the past, and demonstrate that ETI's proposal to increase its authorized return on equity in this case is simply not reflective of current or short-term forecast market capital costs.

II.C. Market Sentiments and Utility Industry Outlook

Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED UTILITIES.

A The global economy has faced the extraordinary challenges of the novel Coronavirus, which led to nearly a complete shutdown of the global economy. This unprecedented event has impacted all sectors and capital markets. However, regulated utilities have generally performed well during the COVID-19 pandemic with consistent access to capital markets.

Moody's Investors Service ("Moody's") views the regulatory environment for the U.S. utility companies to be supportive and maintains a stable outlook for the industry. Specifically, Moody's states:

> We are maintaining a stable outlook for the US regulated utilities sector based on our expectations that the regulatory environment will remain supportive of rate base growth and infrastructure investments and in mitigating the impact of extreme weather events. We anticipate that the regulated utility sector will remain resilient and benefit from the continuing US economic recovery.
>
> » **Regulatory environment to remain supportive.** We expect average aggregate rate base growth of around 6% in 2022 amid a supportive regulatory environment. Rate case outcomes and other regulatory actions have been remarkably consistent with our expectations over the past few years, despite extreme weather events and economic disruptions caused by the coronavirus pandemic.
>
> » **FFO-to-debt will be steady at current levels.** We estimate that the sector's aggregate industry funds from operations (FFO) to debt ratio will range between 14% and 15%, consistent with our projections last year for 2021. Our FFO-to-debt forecast incorporates our expectations for improving economic conditions in the US.
>
> » **Capital expenditures will remain high**. With a heightened focus on reducing carbon exposure, utilities continue to invest in new renewable generation capacity and to make up for accelerated coal-fired power plant retirements as well as to bolster transmission and distribution networks. Also, the frequency and severity of extreme weather events in 2021 are prompting many utilities to invest more in hardening their systems and enhancing the resilience of their operations amid rising physical climate risk.[5]

Similarly, Fitch Ratings ("Fitch") states the following:

> The sector outlook for North American Utilities, Power and Gas in 2022 is neutral, according to Fitch Ratings.
>
> Approximately 81% of rated entities in the sector have Stable Rating Outlooks based on an expectation that retail electricity sales will continue to strengthen and the regulatory environment will remain supportive.
>
> Key rating concerns include high natural gas prices, which will increase the fuel and purchased power costs for utilities and will be directly passed through to customers. Elevated capex, recovery of storm

[5] *Moody's Investors Service Sector Comment*: "2022 Outlook Stable On Sustained Regulatory Support for Robust Investment Cycle," November 4, 2021 at 1 (emphasis added).

> restoration costs and recovery of deferred coronavirus expenses will compound the pressure on customer bills. Declining O&M costs due to cost control initiatives and the ongoing energy transition to lower cost renewables should provide some offset.
>
> Fitch expects median FFO leverage for the sector to modestly improve to 4.5x in 2022 as utilities see a rebound in FFO from growth investments and recovery in retail sales. Parent holding companies will likely continue to look for asset monetization opportunities to supplement or replace equity needs to fund high capex. However, the improvement in leverage may not be enough to reverse the negative ratings trend for utility parent holding companies.
>
> Fitch expects liquidity of regulated utilities and parent holding companies to remain strong. The companies maintain large credit lines and benefit from unfettered access to capital markets. For competitive generators, robust FCF generation supports liquidity.[6]

Standard & Poor's ("S&P") currently has a negative outlook for the regulated utility industry, because utility companies are operating with minimum financial cushion from their downgrade thresholds and their exposure to environmental, social and governance risk. Specifically, S&P states the following:

> **Key Takeaways**
>
> - For the second consecutive year rating downgrades outpaced upgrades for the investor-owned North American regulated utility industry, causing the median rating on the industry to fall to the 'BBB' category.
>
> - During 2021, credit quality was primarily pressured by weak financial measures and Environmental, Social, and Governance (ESG) credit risks. We expect that these risks will continue to pressure the credit quality of the industry in 2022.
>
> - Our outlook on the investor-owned North American regulated utility industry remains negative. We believe that 2022 could be the third consecutive year that downgrades outpace upgrades.
>
> - Recently, several new credit risks have emerged, including inflation, higher interest rates, and rising commodity prices. Persistent pressure from any of these risks would likely lead to a further weakening of the industry's credit quality in 2022.

[6] *Fitch Ratings*: "Neutral Outlook for North American Utilities, Power & Gas in 2022," December 9, 2021 at 1-2. (emphasis added).

* * *

What's Behind This Fundamental Weakening Of Credit Quality?

Utility cash flows tend to be more stable and predictable than most other industries. Strategically, an increasing percentage of the industry has been managing their financial measures with only minimal financial cushion from their downgrade threshold. While this strategy of limiting excess credit capacity works well under ordinary conditions, when unexpected risks occur or base case assumptions deviate from expectations, the utility can become susceptible to a weakening of credit quality. This has been one of the primary drivers of the industry's weakening of credit quality over the past two years.

* * *

Environmental, Social, and Governance (ESG) Credit Risks

During 2020 and 2021 the industry credit quality was constrained by many ESG-related credit risks. Unexpectedly, the industry faced several governance-related credit risks in 2020. We view these governance events as isolated incidents and do not believe that they will have broader implications for the larger utility industry. However, we do expect that physical and environmental risks will continue to constrain the industry's credit quality. Wildfires, severe winter storms, hurricanes, and tornadoes lead to higher costs that are either partially disallowed by regulators or are deferred for future recovery. Similarly, higher environmental costs can also result in higher costs that are either partially disallowed by regulators or are deferred for future recovery. Either outcome for physical and environmental risks typically results in weaker financial measures until the utility fully recovers such costs from customers. Because of climate change, we believe that these risks will continue to negatively affect credit quality in 2022.[7]

Q HOW IS THIS OBSERVABLE MARKET DATA USED IN FORMING YOUR RECOMMENDED RETURN ON EQUITY AND OVERALL RATE OF RETURN FOR ETI?

A Generally, authorized returns on equity, credit standing, and access to capital have been quite robust for utilities over the last several years. The COVID-19 pandemic has created challenges for the U.S. economy as a whole, including utility companies.

[7] *S&P Global Ratings*: "For the First Time Ever, the Median Investor-Owned Utility Ratings Falls to the 'BBB' Category," January 20, 2022, at 1, 6 and 10. (emphasis added).

However, the U.S. economy has largely recovered and utilities are expected to weather the economic downturn caused by the pandemic, and their financial strength will be restored as the economy continues to recover. In the meantime, it is critical that the Commission ensure that rates are increased no more than necessary to provide fair compensation and maintain financial integrity, and be especially concerned about rate impacts on the service area economies that are severely constrained due to current economic conditions.

II.D. ETI Investment Risk

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

A The market's assessment of ETI's investment risk is described by credit rating analysts' reports. ETI's current corporate bond ratings are BBB+ from S&P and Baa2 from Moody's. The Company has a "Stable" outlook from both credit rating agencies.[8]

Specifically, S&P states:

> **Outlook: Stable**
>
> The stable outlook on ETI reflects its lower-risk, rate-regulated utility operations and effective management of regulatory risk. The outlook also reflects our expectation of adjusted funds from operations (FFO) to debt in the 15%-18% range through 2024, in line with the existing financial risk profile.
>
> **Business Risk: Excellent**
>
> Our assessment of ETI's business risk profile reflects its lower-risk, regulated-utility operations in Texas, with generally supportive regulation, including rate mechanisms. After hurricanes, the company has been able to recover restoration costs through securitizations. The company's midsize service territory benefits from economic growth and modest customer growth. ETI, with about 18% of Entergy's consolidated operating income, serves approximately 485,000 customers in eastern Texas and has about 3,200 megawatts (MW) of generation capacity,

[8] Bulkley Direct Testimony at 3.

90% of which is natural gas-fired. Residential and commercial customers account for about 65% of retail sales, providing some stability to revenue and cash flow.

Financial Risk: Aggressive

Our assessment of ETI's stand-alone financial risk profile incorporates a base-case scenario that includes adjusted FFO to debt in the range of about 15%-18% through 2024, bolstered by the reduction in debt securitization bond proceeds. We expect robust capital spending will result in negative DCF. The utility will therefore require external funding that could include debt issuances or capital infusions from the Entergy group. Over the next few years, we expect the utility will be highly leveraged for the regulated utility, as indicated by debt to EBITDA averaging about 5.5x hence supporting the aggressive financial risk category.

We assess ETI's financial risk profile using our medial volatility financial benchmarks, which are more relaxed than those we use for a typical corporate issuer. The use of these benchmarks reflects ETI's lower-risk regulated utility operations and effective management of regulatory risk.[9]

II.E. ETI's Proposed Capital Structure

Q WHAT IS ETI'S PROPOSED CAPITAL STRUCTURE?

A ETI's proposed capital structure is shown in Table 4 below:

TABLE 4

ETI's Proposed Capital Structure

Description	As Filed Weight
Long-Term Debt	47.97%
Preferred Stock	0.81%
Common Equity	51.21%
Total Regulatory Capital Structure	100.00%

Source: Schedule K-1.

[9] *Standard & Poor's RatingsDirect, Summary:* "Entergy Texas, Inc.," September 12, 2022 at 2 and 4.

ETI's proposed capital structure is sponsored by ETI witnesses Bobby Sperandeo and Allison Lofton. However, the Company requested a ratemaking capital structure with a 50.9% common equity ratio in Docket 48371.

II.F. Embedded Cost of Debt

Q WHAT IS ETI'S EMBEDDED COST OF LONG-TERM DEBT?

A The Company's embedded cost of debt of 3.47% is sponsored by ETI's witnesses Ms. Lofton and Mr. Sperandeo and is presented on Schedule K-3.

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 are permitted to earn a return on a

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.[10]

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.

III.A. Risk Proxy Group

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

A I relied on the same proxy group developed by ETI witness Ms. Bulkley with one exception. I excluded American Electric Power Company, Inc. because it entered into a definitive agreement to sell Kentucky Power Transmission.

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

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

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.

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

A My proxy group is shown in Exhibit MPG-3. The proxy group has an average credit rating from S&P of BBB+, which is identical to ETI's credit rating from S&P. The proxy group has an average Moody's credit rating of Baa1, which is a notch higher than ETI's credit rating of Baa2 from Moody's.

My proxy group has an average common equity ratio of 43.9% from S&P (including short-term debt) and a 47.2% equity ratio from *Value Line* (excluding short-term debt). ETI's requested common equity ratio of 51.2% is higher than the proxy group average of 47.2%.

Therefore, my proxy group is reasonably comparable to ETI's total investment risk and will produce a fair and just return on equity for ETI.

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.

III.C. Constant Growth DCF

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.

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 September 30, 2022. 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*.[11] 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 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.[12] 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

[11] *The Value Line Investment Survey*, July 22, August 12, and September 9, 2022.

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

consensus dividend growth rate expectations. I used the average of analysts' growth rate estimates from three sources: Zacks, MI, and Yahoo! Finance. All such projections were available on September 30, 2022, 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.

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-4. The average growth rate for my proxy group is 5.70%.

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

A As shown in Exhibit MPG-5, the average and median constant growth DCF returns for my proxy group for the 13-week analysis are 9.15% and 9.24%, 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 5.70%. The three- to five-year growth rate is higher than my estimate of a maximum long-term sustainable growth rate of around 4.00%.

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 Gross Domestic Product ("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 to 10 years, the U.S. nominal GDP will grow at an annual rate of approximately 4.00%.[13] These GDP growth projections reflect a real growth outlook of 1.90% and an inflation outlook of around 2.05% going forward. As such, the average nominal growth rate over the next

[13] *Blue Chip Economic Indicators*, October 10, 2022, at 14.

5 to 10 years is around 4.00%, which I believe is a reasonable proxy of long-term sustainable growth.[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.D. 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

[14] *Id.*

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-6. 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 are based on ETI'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-7, the average sustainable growth rate using this internal growth rate model is 4.72% for my proxy group, which is generally in line with the long-term sustainable growth outlook as measured by the GDP growth.

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-8. As shown there, the sustainable growth DCF analysis produces proxy group average and median DCF results for the 13-week period of 8.13% and 7.87%, respectively.

III.E. 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 regarding the current market environment, the industry, and the three- to five-year growth outlook to be 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 that utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown in Exhibit MPG-9. 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).[15]

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.
>
> * * *
>
> 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

[15] *"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.

and expected real growth. By analyzing these components separately, it is easier to see the factors that drive growth.[16]

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 1926-2021 to be approximately 6.4%.[17] During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.0%.[18]

As such, over the past 95 years, the geometric average growth of the U.S. nominal GDP has been slightly higher than, but 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.

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

[16] Morningstar, Inc., Ibbotson *SBBI 2013 Valuation Yearbook* at 51 and 52.
[17] Kroll, 2022 SBBI Yearbook at 145.
[18] U.S. Bureau of Economic Analysis, Table 1.1.5 Gross Domestic Product, Revised May 26, 2022.

average is best, and most often, used as a measurement of performance or growth over a long period of time.[19] Since 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 projections published GDP growth rate outlook is 4.00% over the next 5 to 10 years.[20]

I propose to use the consensus for projected five-year average GDP growth rates of 4.00%, as published by *Blue Chip Economic Indicators*, as an estimate of long-term sustainable growth. *Blue Chip Economic Indicators* projections provide real GDP growth projections of 1.90% and inflation of approximately 2.05% over the next 5 to 10-year (2024-2033) period, resulting in an average projected nominal annual GDP growth projection of 4.00%.[21] These GDP growth forecasts represent the most likely views of market participants because they are based on published economic consensus projections.

[19] *New Regulatory Finance*, Roger Morin, PhD, at 133-134.
[20] *Blue Chip Economic Indicators*, October 10, 2022, at 14.
[21] *Id.*

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 5 below.

TABLE 5

GDP Forecasts

Source	Projected Period	Real GDP	Inflation	Nominal GDP
Blue Chip Economic Indicators[1]	5-10 Yrs	1.90%	2.05%	4.00%
EIA - Annual Energy Outlook[2]	29 Yrs	2.21%	2.28%	4.55%
Congressional Budget Office[3]	30 Yrs	1.62%	2.06%	3.72%
Moody's Analytics[4]	31 Yrs	2.09%	2.09%	4.22%
Social Security Administration[5]	74 Yrs			4.12%
Economist Intelligence Unit[6]	29 Yrs	1.68%	2.18%	3.90%

Sources:
[1]Blue Chip Economic Indicators, October 10, 2022 at 14.
[2]U.S. EnergyInformation Administration (EIA), Annual Energy Outlook 2022, March 3, 2022.
[3]Congressional Budget Office, Long-Term Budget Outlook, July 2021.
[4]Moody's Analytics Forecast, downloaded June 29, 2022.
[5]Social Security Administration, "2021 OASDI Trustees Report," Table VI.G4, August 31, 2021.
[6]S&P MI, Economist Intelligence Unit, downloaded on March 9, 2022.

As shown in the table above, the real GDP and inflation fall in the range of 1.62% to 2.21% and 2.05% to 2.28%, respectively. This results in a nominal GDP in the range of 3.72% to 4.55%.

Therefore, the nominal GDP growth projections made by these independent sources support my use of 4.00% 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 4.00% 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-10, the average and median multi-stage growth DCF returns on equity for my proxy group using the 13-week average stock price are 7.74% and 7.69%, respectively.

III.F. DCF Summary Results

Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

A The results from my DCF analyses are summarized in Table 6 below:

TABLE 6

Summary of DCF Results

Description	Average	Median
Constant Growth DCF Model (Analysts' Growth)	9.15%	9.24%
Constant Growth DCF Model (Sustainable Growth)	8.13%	7.87%
Multi-Stage Growth DCF Model	7.74%	7.69%

Based on the current market conditions, my DCF studies indicate a fair return on equity for ETI in the range of 8.70% to 9.30%, with a midpoint of 9.0%.

III.G. 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 that get paid out with routine frequency. 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 June 2022. 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 June 2022 because public utility stocks consistently traded at a premium to book value during that period. This is illustrated in Exhibit MPG-11, which shows the market-to-book ratio since 1986 for the electric 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 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 detrimental impact on current shareholders.

Based on this analysis, as shown in Exhibit MPG-12, the average indicated equity risk premium over U.S. Treasury bond yields has been 5.72%. 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 the 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 at least one business cycle. As shown on my Exhibit MPG-12, the five-year rolling average risk premium over Treasury bonds ranged from 4.25% to 7.09%,

with an average of 5.68%. The ten-year rolling average risk premium ranged from 4.38% to 6.91%, with an average of 5.68%.

As shown on my Exhibit MPG-13, the average indicated equity risk premium over contemporary "A" rated Moody's utility bond yields was 4.36%. The five-year rolling average risk premiums ranged from 2.88% to 5.90%, with an average of 4.33%. The ten-year rolling average risk premiums ranged from 3.20% to 5.73%, with an average of 4.32%.

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-14, where I show the yield spread between utility bonds and Treasury bonds over the last 43 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 1.49% and 1.91%, respectively. The utility bond yield spreads over Treasury bonds for "A" and "Baa" rated utilities through September 2022 were 1.56% and 1.87%, respectively.

The current 13-week average "A" rated utility bond yield of 4.97% when compared to the current Treasury bond yield of 3.29%, as shown in Exhibit MPG-15, implies a yield spread of 1.68%. This current utility bond yield spread is higher than the 43-year average spread for "A" rated utility bonds of 1.49%. The current spread for the "Baa" rated utility bond yield of 2.02% is also higher than the 43-year average spread of 1.91%.

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

TABLE 7

Comparison of Yield Spreads Over Treasury Bond Yields

	Utility		Corporate	
Year	A	Baa	A	Baa
Average Historical Spread	1.49%	1.91%	0.84%	1.91%
2019 Spread	1.18%	1.61%	0.81%	1.79%
2020 Spread	1.49%	1.87%	0.96%	2.10%
2021 Spread	1.05%	1.30%	0.65%	1.34%
2022 Spread*	1.56%	1.87%	0.97%	1.91%

Source: Moody's Bond Yields
*2022 data through September 30, 2022.

As outlined above, the observable market evidence indicates that risk premiums are reasonably aligned with long-term historical averages. As such, in comparison to recent utility bond yields and Treasury bond yields, I believe the most reasonable estimate of the current market cost of equity should reflect an average historical yield spread.

In terms of utility stock yields over utility bond yields, the risk premium appears to be returning to more normal levels. As outlined on my Exhibit MPG-2, page 4, stock yield spreads over A-rated utility bond yields have expanded to around 1.0% from negative to very thin spreads extending back to 2016. The same is true for utility stock yield spreads over Baa-rated utility bonds. Observable stock yield spreads over utility bond yields indicate that risk premiums in the marketplace today more reasonably align with normal risk premiums that have been experienced over long historical periods.

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

A Because yield spreads have reverted to the long-term historical average, I recommend applying a long-term historical average risk premium to current utility bond yield spreads.

For the Treasury bond yields, I relied on the five-year rolling average historical risk premium of approximately 5.68% in combination with a forecasted Treasury bond yield of 3.80%.[22] A forecasted Treasury bond yield of 3.80% reflects a substantial increase in the Treasury bond yield over a 13-week study period of 3.29%, as shown on my Exhibit MPG-15, page 1. Using a Treasury bond risk premium of 5.68% and a projected 30-year Treasury bond yield of 3.80% produces an indicated equity risk premium of 9.48% (5.68% + 3.80%).

A risk premium based on utility bond yields reflects current observable bond yields. Current observable bond yields may increase over time based on economists' projections of changes in interest rates. However, history indicates that economists typically overestimate increases in interest rates. Therefore, current observable rates

[22] *Blue Chip Financial Forecasts*, September 30, 2022 at 2.

should also be considered. With current observable rates, I recommend using the five-year rolling average risk premium estimate of 4.33%, which as shown on Exhibit MPG-13 with an A utility yield of 4.97% as shown on my Exhibit MPG-15, page 1, produces a risk premium return on equity of 9.30% (4.33% + 4.97%).

Based on this methodology, my Treasury bond risk premium and my utility bond risk premium indicate a return on equity of 9.30% to 9.50%, with a midpoint of 9.40%.

III.H. 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, ETI'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 3.80%.[23] The current 30-year Treasury bond yield is 3.29%, as shown in Exhibit MPG-15.

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

[23] *Id.*

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 I reviewed the average utility beta of 0.88 for my proxy group as shown on my Exhibit MPG-16.

I also reviewed the long-term trend of *Value Line* betas reported for the proxy group companies, and the *Value Line* regulated utility industries. The proxy group's betas have generally ranged between 0.65 and 0.75 prior to the elevated betas published after the COVID-19 pandemic commenced (Exhibit MPG-16, pages 2 and 3). The historical variability in the proxy group *Value Line* betas is similar to the historical variability in the entire regulated utility industry betas followed by *Value Line* (Exhibit MPG-16, pages 4 and 5). On this schedule, similar to the proxy group companies, I show the *Value Line* electric industry historical beta estimates, which also indicate that the current beta is abnormally high, and the long-term historical average beta of the proxy group reasonably aligns with that of the entire industry.

The normalized historical beta estimates for the proxy group is 0.75. Thus, the current beta estimate of 0.88 is well above the normalized historical beta for my proxy group.

Q HAVE YOU PERFORMED ANY STUDIES TO PROVE THAT PUBLISHED *VALUE LINE* BETAS ARE ABNORMALLY HIGH AND DO NOT ACCURATELY REFLECT INVESTMENT RISK OF ETI?

A Yes. Above, I outline a study based on *Value Line*'s methodology but using the S&P 500 utility index, relative to the New York Stock Exchange, and show that beta estimates are skewed due to two months within the 60-month time period used to measure beta. The two months that skew the betas are in March and April of 2020, a time period that coincides with the start of the worldwide COVID-19 pandemic. Removing these two months has the effect of reducing utility beta estimates from the very high levels right now of around 0.90, down to more normalized betas in the range of 0.65 to 0.75. This beta regression study is summarized in Table 8 below.

TABLE 8

S&P 500 Utilities vs. NYSE
Regression Betas

Period	Raw Beta	Adjusted Beta	R^2
5Yr Ending Feb '20	0.45	0.65	0.18
May '20 - Current	0.67	0.80	0.39
Most Recent 5Yr Period	0.82	0.90	0.52

Note:
Calculated using Value Line's regression based beta methodology.
The current and most recent periods are through 9/30/22.

Based on this analysis, I reject placing significant weight on *Value Line* published betas and instead rely on more normalized historical betas to produce a fair risk-adjusted return in this proceeding.

Q WHY IS IT NOT REASONABLE TO ESTIMATE A CAPM RETURN ON A REGULATED UTILITY BASED ON BETA ESTIMATES THAT ARE CLEARLY OUTLIERS FOR HISTORICAL AVERAGE BETAS?

A Utility company betas have increased from around 0.65 to 0.80 up to a current level around 0.90 over the last two years. This increase in betas suggests that utility companies' investment risks are increasing relative to the overall general marketplace. But, the outlook of increasing utility investment risk is simply not supported by a review of other risk measures for utilities including: (a) current robust valuation metrics of utilities as described above; (b) risk spreads of utility stock yields relative to bond yields; (c) sustained investment grade bond ratings for utility companies, and (d) access to significant amount of capital. Again, as shown on Exhibit MPG-2, the historically strong valuation metrics of regulated utilities are particularly robust, indicating the market is paying a premium for utility stocks. The fact that utility stocks are trading at a premium is inconsistent with the notion that the market perceives the utility industry's investment risk to be increasing. It also shows that the market is not demanding a higher rate of return to invest in these securities. My conclusion is that the elevated betas for utility stocks were skewed by the temporary effects of the market events during the onset of the pandemic but the beta impacts have returned to more normal levels as the market recovered.

For these reasons, in performing my CAPM I used a more normalized beta of 0.75 and market risk premium factors in order to derive a CAPM return estimate in this proceeding.

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 500 by adding an expected 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.

Kroll's *2022 SBBI Yearbook* estimates the historical arithmetic average real market return over the period 1926 to 2021 to be 9.2%.[24] A current consensus for projected inflation, as measured by the Consumer Price Index, is 2.4%.[25] Using these estimates, the expected market return is 11.82%.[26] The market risk premium then is the difference between the 11.82% expected market return and my 3.80% risk-free rate estimate, or 8.02%, 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 11.82% as described above and the current 30-year Treasury yield of 3.29% as shown on my Exhibit MPG-15, which produced a current market risk premium of approximately 8.53%.

A historical estimate of the market risk premium was also calculated by using data provided by Kroll in its *2022 SBBI Yearbook*. Over the period 1926 through 2021, the Kroll study estimated that the arithmetic average of the achieved total return on the

[24] Kroll, *2022 SBBI Yearbook* at 146.
[25] *Blue Chip Financial Forecasts*, September 30, 2022 at 2.
[26] { (1 + 0.092) * (1 + 0.024) – 1 } * 100.

S&P 500 was 12.3%[27] and the total return on long-term Treasury bonds was 6.0%.[28] The indicated market risk premium is 6.3% (12.3% - 6.0% = 6.3%).

The long-term government bond yield of 6.0% occurred during a period of inflation of approximately 3.0%, thus implying a real return on long-term government bonds of 3.0%.

Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO THAT ESTIMATED BY KROLL?

A Kroll makes several estimates of a forward-looking market risk premium based on actual achieved data from the historical period of 1926 through 2021 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. First, Kroll estimates a market risk premium of 7.46% 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 1926-2021 period.[29]

Second, Kroll used the Ibbotson & Chen supply-side model which produced a market risk premium estimate of 6.22%.[30] Kroll explains that the historical market risk premium based on the S&P 500 was influenced by an abnormal expansion of P/E ratios

[27] Kroll, *2022 SBBI Yearbook* at 145.
[28] *Id.*
[29] *Id.* at 199.
[30] *Id.* at 207-208.

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 impacts on P/E ratios, Kroll takes into consideration the three-year average P/E ratio as well as the current P/E ratio.[31]

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 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. Currently, the 20-year Treasury yield is below the normalized risk-free rate.[32]

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.

[31] *Id.*

[32] Kroll, "Kroll Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher," June 16, 2022.

Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

A As shown on my Exhibit MPG-17, using a current market risk-free rate of 3.29% and a projected market return of 11.82% produces a market risk premium of approximately 8.53%, combined with the beta of 0.88 indicates a CAPM return estimate of 10.84%.

Using a market return of 11.82%, with a projected risk-free rate of 3.80%, produces a market risk premium of 8.02%. This market risk premium and risk-free rate with a normalized utility beta of 0.75, indicates a CAPM return of about 9.84%.

As discussed above, the current elevated betas do not reflect the low industry risk for ETI or the utility industry as a whole. Therefore, I find a more reasonable result using a CAPM study in this case would be to use a normalized utility beta, which produces a return on equity of approximately 9.80%.

III.I. 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 ETI?

A Based on my analyses, I find that ETI's current market cost of equity is in the range of 9.00% to 9.80%, with a midpoint of 9.40%.

TABLE 9

Return on Common Equity Summary

Description	Results
DCF	9.00%
Risk Premium	9.40%
CAPM	9.80%

My recommended return on common equity of 9.40% falls at the midpoint of the range of 9.00% to 9.80%. The low-end of my range is based on my DCF studies, and the high-end is based on my CAPM, which is impacted by abnormally high utility betas. My risk premium study also falls in this range.

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.J. Financial Integrity

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

A Yes. I have reached this conclusion by comparing the key credit rating financial ratios for ETI at my proposed return on equity and ETI's proposed capital structure to S&P's benchmark financial ratios using S&P's 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.[33]

[33] 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.

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 "Aggressive" or "Significant." Based on the most recent S&P report, ETI has an "Excellent" business risk profile and an "Aggressive" 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 ETI'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 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.[34]

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

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 ETI's cost of service for its regulated utility operations in its Texas service territory for the test year ending December 31, 2021. While S&P would normally look at total consolidated ETI 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 ETI's regulated utility operations. Hence, I am attempting to determine whether my proposed rate of return will in turn support cash flow metrics, balance sheet strength, and earnings that will support an investment grade bond rating and ETI's financial integrity.

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

A In response to Request for Information ("RFI") TIEC 1-18, ETI stated that it does not have any off-balance sheet debt equivalents. Therefore, I did not include any OBS debt equivalents in the development of my credit metrics for ETI Texas operations. However, I included ETI's short-term debt obligations as provided in response to RFI TIEC 1-9.

Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT RELATES TO ETI FOR THE TEST YEAR ENDING DECEMBER 31, 2021.

A The S&P financial metric calculations for ETI at a 9.40% return are developed on Exhibit MPG-18, page 1. The credit metrics produced below, with a financial risk profile from S&P of "Aggressive" and business risk profile of "Excellent," will be used to assess the strength of the credit metrics based on ETI's retail operations in the state of Texas.

The adjusted debt ratio for credit metric purposes at ETI's capital structure is 49.5%, which is comparable to the average adjusted debt ratio for the industry as shown on Exhibit MPG-18, page 4.

Based on an equity return of 9.40% and ETI's common equity ratio of 51.2%, ETI will be provided an opportunity to produce a Debt to Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of 3.7x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x.[35]

ETI's utility operations FFO to total debt coverage at a 9.40% equity return and 51.2% equity ratio is 21%, which is within S&P's "Significant" guideline range of 13% to 23%.

I conclude that ETI's core credit metrics ratios based on my return on equity and its capital structure will support its investment grade credit rating. Importantly, my recommended overall rate of return will accomplish these objectives while minimizing ETI's cost of service and supporting the most competitive rates that remain just and reasonable from a rate-setting standpoint.

IV. RESPONSE TO ETI WITNESS MS. BULKLEY

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

A Ms. Bulkley recommends a return on equity in the range of 9.95% to 11.10% and point estimate of 10.50%. The Company is requesting a return on equity of 10.80%, which includes a 30 basis points performance adder supported by ETI witness Mr. Totten.[36] Ms. Bulkley's recommendation reflects her assessment of the current capital market

[35] *Standard & Poor's RatingsDirect®*: "Criteria: Corporate Methodology," November 19, 2013.
[36] Direct Testimony of Ann E. Bulkley, at 4.

conditions and Company's business risks relative to the companies included in her proxy group.

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. Ms. Bulkley relied on DCF median results without presenting any evidence that her average results are subject to low- and high-end outliers;
3. Her CAPM is based on inflated market risk premiums;
4. Ms. Bulkley's Empirical CAPM ("ECAPM") is based on a flawed methodology;
5. Both Ms. Bulkley's CAPM, ECAPM, and Risk Premium studies are based on projected interest rates that are highly uncertain; and
6. Ms. Bulkley's Bond Yield Plus Risk Premium studies are based on an overly simplistic inverse relationship between equity risk premiums and interest rates, which produces inflated equity risk premiums.

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 10 below. In the "Adjusted" Column 2, I show the results with prudent and sound adjustments to correct the flaws referenced above. With such adjustments to Ms. Bulkley's proxy group's DCF and CAPM return estimates, Ms. Bulkley's studies show that my 9.40% recommended return on equity for ETI is more reasonable and consistent with the current capital market environment.

TABLE 10

Bulkley's Adjusted Return on Equity Estimates

Description	Bulkley Mean / Median[1] (1)	Gorman Adjusted (2)
Constant Growth DCF		
30-Day Average	9.38% / 9.53%	7.86% / 7.93%
90-Day Average	9.42% / 9.53%	7.89% / 8.05%
180-Day Average	9.46% / 9.65%	7.94% / 8.13%
CAPM DCF-Derived Results (*Value Line* Beta)		
Current 30-Yr Treasury (2.37 %)	11.47%	10.71%
Near-Term Projected 30-Yr Treasury (3.12%)	11.55%	10.79%
Long-Term Projected 30-Yr Treasury (3.40%)	11.59%	Reject
CAPM DCF-Derived Results (Bloomberg Beta)		
Current 30-Yr Treasury (2.37%)	10.67%	9.97%
Near-Term Projected 30-Yr Treasury (3.12%)	10.81%	10.12%
Long-Term Projected 30-Yr Treasury (3.40%)	10.87%	Reject
CAPM DCF-Derived Results (Historical Beta)		
Current 30-Yr Treasury (2.37%)	10.06%	9.42%
Near-Term Projected 30-Yr Treasury (3.12%)	10.25%	9.61%
Long-Term Projected 30-Yr Treasury (3.40%)	10.32%	Reject
ECAPM	10.72% to 11.86%	Reject
Risk Premium		
Current 30-Yr Treasury (2.37%)	9.68%	8.42%
Near-Term Projected 30-Yr Treasury (3.12%)	10.00%	9.17%
Long-Term Projected 30-Yr Treasury (3.40%)	10.16%	Reject
Base ROE	10.50%	9.40%
Performance Adder[37]	0.30%	Reject
Recommended ROE	10.80%	9.40%

Sources: [1]Bulkley Direct Testimony at 4 and 90 and Exhibit AEB-2 through Exhibit AEB-7.

As shown in Table 10 above, reasonable adjustments to Ms. Bulkley's return on equity estimates support a return on equity for ETI of 9.40%.

[37] TIEC witness Mr. Griffey addresses the performance adder and explains why it should be rejected.

While my adjustments are presented in Adjusted Column 2 of Table 10 above, a detailed description of my adjustments to Ms. Bulkley's return on equity estimates is presented below.

IV.A 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 ETI?

A Yes. Ms. Bulkley opines that the traditional DCF and CAPM (based on current risk-free rate) 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 ETI and needs to be considered with caution.[38] She also opines that it is important now to consider projected market data.[39]

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 PAN OUT?

A No. As explained in more detail later in my testimony, economists have consistently been projecting increases in interest rates relative to current observable interest rates over approximately the last five years. However, these projections for increased interest rates have turned out to be inaccurate. Instead, interest rates have remained relatively stable and at low levels for approximately the last five to ten years. Also, I show that projections for interest rates over the next five to ten years have been

[38] Direct Testimony of Ann E. Bulkley, at 30-32, 40, and 44.
[39] *Id.*, at 12, 40, and 46.

moderated by independent consensus economists. This is clear evidence that today's market is embracing the sustainability of relatively low capital market costs in the current market relative to what independent economists have projected in prior periods. 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 models are producing reliable and accurate estimates of the current market cost for utility companies.

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

A The DCF model is producing 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 ETI.

Specifically, as shown on my Exhibit MPG-2 (pages 4 and 12), the 2022 dividend yield of electric (3.36%) and gas (3.22%) utility stocks was competitive with the yield on "A" rated utility bonds in 2022 (4.44%). The current yield spread between stock and A-rated utility bond yields is reasonably comparable to that realized historically, and suggests that the stock yield component of the DCF model is robust and competitive with alternative income producing 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.

Additionally, the annual growth in dividends for utilities over the last 17 years has been approximately 4.08% for electric and 5.25% for gas as shown on my Exhibit MPG-2 (pages 5 and 13). In my constant growth DCF study presented above, the current three- to five-year forward projected growth rate for electric utilities is approximately 5.70%, which is considerably higher than the historical growth rate for the 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 sustainable growth for equity investments is around 4.00%, 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.B. 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-3. 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 median growth rate estimate for her proxy group is approximately 6.2%.

She relied on dividend yield calculations based on average stock prices over three different time periods: 30-day, 90-day, and 180-day ending March 31, 2022 – all reflecting a half year of dividend growth adjustments. In her testimony Ms. Bulkley presented only the median DCF results, which fall in the range of 9.53% to 9.65%.[40]

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

A No. I have two major concerns with Ms. Bulkley's DCF study. First, as discussed in regard to my own DCF study, the current consensus analysts' growth rates are substantially higher than the long-term sustainable growth rate of 4.00%. Specifically, Ms. Bulkley's constant growth DCF model is based on a growth rate of approximately 6.20% for her proxy group. This growth rate is excessive.

Second, Ms. Bulkley only presented the median results for her proxy group. Using a proxy group median is a more accurate approach to assess the central tendency of the proxy group in the presence of outliers. However, Ms. Bulkley did not provide any evidence that her DCF estimates include any low-end and high-end outliers. Specifically, her mean DCF results range from approximately 7.0% to 12.0% with a midpoint of 9.5%, which is the average DCF result for her mean estimates. Ms. Bulkley's average DCF results are no higher than 9.5% as shown on my Exhibit MPG-19, page 1, which is identical to Ms. Bulkley's Exhibit AEB-3 but also includes the average DCF results, not just the median.

[40] Direct Testimony of Ann E. Bulkley, at 44 and Exhibit AEB-3.

Q IS THERE A WAY TO CORRECT MS. BULKLEY'S CONSTANT GROWTH DCF RESULTS TO REFLECT A SUSTAINABLE GROWTH OUTLOOK?

A Yes. In Column 2 in Table 10 above and my Exhibit MPG-19, page 2, I present the results of a multi-stage DCF model to reflect a reasonable long-term sustainable growth rate as discussed in regard to my own studies. When Ms. Bulkley's multi-stage growth DCF results are mean adjusted, they generally support a return on equity for her proxy group of no higher than 8.10%. My correction to her 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 stock based on a long-term growth rate of 4.00%.

IV.C. 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:

$$B_i \times (R_m - R_f)$$

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 analysis is based on a current risk-free rate of 2.37% and near-term projected and long-term projected risk-free rates of 3.12% and 3.40%, respectively. She used a market risk premium in the range of 9.28% to 10.31%, current beta estimates of approximately 0.88 from *Value Line* and 0.80 from Bloomberg, and a

long-term historical *Value Line* beta of approximately 0.75. Ms. Bulkley's CAPM results fall in the range 10.1% to 11.6%.[41]

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

A I have two primary issues with Ms. Bulkley's CAPM study. 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 2023 to 2027. 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 three market risk premium estimates: 10.31%, 9.56%, and 9.28%. These estimates are based on a DCF market return of 12.68% less the current, near-term, and projected 30-year Treasury bond yields of 2.37%, 3.12%, and 3.40%, respectively.[42]

[41] Bulkley Direct Testimony at 50 and Exhibit AEB-4.
[42] Exhibit AEB-4.

Q WHAT ISSUES DO YOU HAVE 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 12.94%, which consists of a growth rate component of 10.99% and market-weighted dividend yield of 1.61%.[43] 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 10.99% is far too high to be a rational outlook for sustainable long-term market growth. This growth rate is almost three times the growth rate of the U.S. GDP long-term growth outlook of 4.00%, as discussed above.

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 ETI'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. Kroll estimates the actual capital appreciation for the S&P 500 over the period 1926 through 2021 to have been 6.4% to 8.2%.[44] This compares to Ms. Bulkley's projected growth rate of the market of 10.99%.

Further, historically the geometric growth of the market of 6.4%[45] has reflected geometric growth of GDP over this same time period of approximately 6.0%.[46]

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[43] Exhibit AEB-6.
[44] *Kroll, 2022 SBBI Yearbook* at 145.
[45] *Id.*
[46] U.S. Bureau of Economic Analysis, February 23, 2022.

This review of historical data clearly establishes two facts. First, historical, actual achieved growth has been substantially less than the rate 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. All this information strongly supports the conclusion that Ms. Bulkley's projected growth rate on the market of 10.99% 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 to show how unreasonable and inflated is Ms. Bulkley's market return estimate.

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 the currently low interest rate market conditions.[47] Her use of a long-term projected bond yield of 3.40%, which she expects to prevail five years beyond the test year, does not reflect market participants' outlooks for ETI's cost of capital during the test year nor during the period rates determined in this proceeding will be in effect. This bond yield is largely based on projections of Treasury bond yields five years out (2023-2027). Those projections are highly uncertain, and in any event, do not reflect the cost of capital in the test year, the period upon which rates determined in this proceeding are to be based. 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.

[47] Direct Testimony of Ann E. Bulkley, at 12, 40 and 46.

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 estimates for the period 2013 to 2021, which produces a return on equity that is more than 130 basis points lower than the CAPM returns produced by the current beta. This underscores the extent to which current utility betas are abnormally inflated and do not accurately reflect utilities' actual risk.

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

A Yes. Disregarding her long-term projected risk-free rate of 3.40% and using Ms. Bulkley's risk-free rates of 2.37% and 3.12%, the average current *Value Line* and Bloomberg beta estimates of 0.88 and 0.80,[48] respectively, and my market return of 11.82%, Ms. Bulkley's CAPM would be in the range of approximately 9.97% to 10.79%. Using the same parameters and Ms. Bulkley's historical *Value Line* beta of 0.75, her alternative CAPM will produce returns in the range of approximately 9.40% to 9.60%. 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 alternative CAPM more reliable.

[48] Exhibit AEB-4 through AEB-6.

IV.D. 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 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 adjusted beta estimate range of 0.75 to 0.88 to a range of 0.81 to 0.91.[49] 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

[49] 75% x 0.75+ 25% x 1 = 0.81 and 75% x 0.88 + 25% x 1 = 0.91.

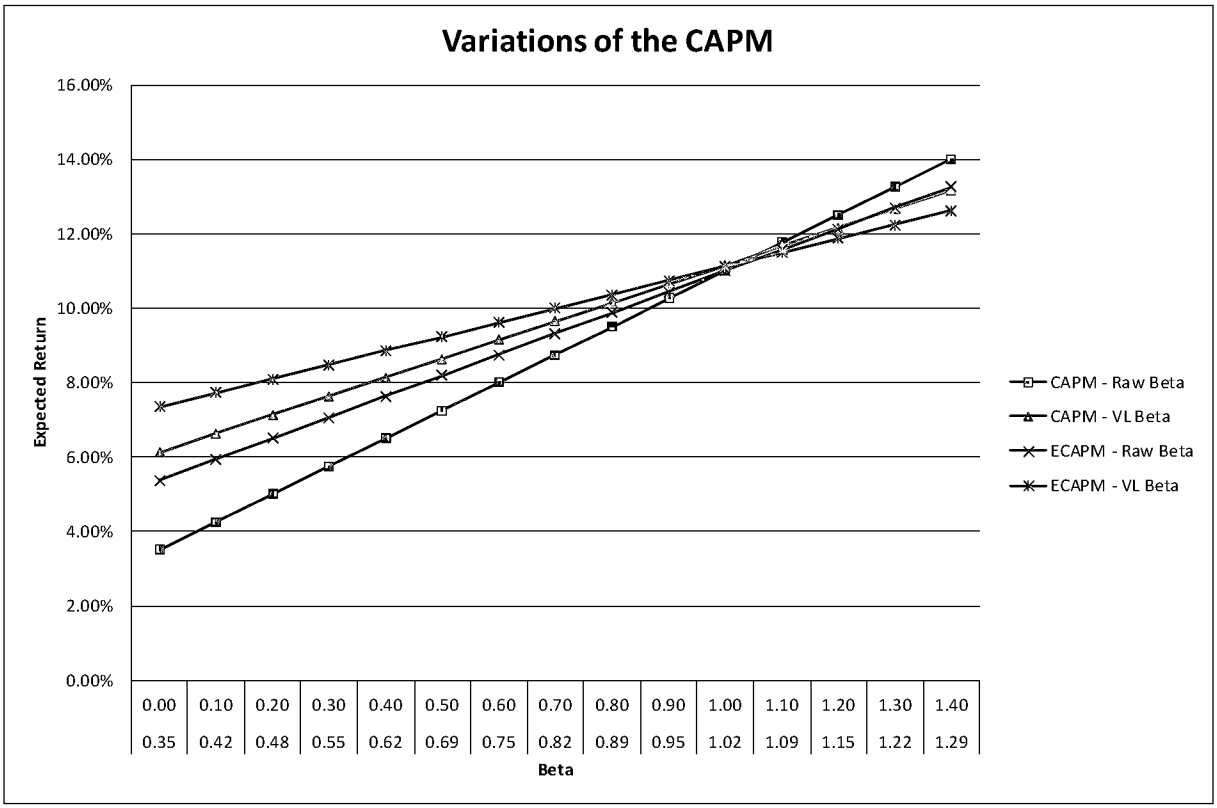
ECAPM already makes to correct for any shortcomings of the traditional CAPM. As a result, her model produces overstated results.

Further, Ms. Bulkley's reliance on an adjusted *Value Line* beta in her ECAPM study is inconsistent with the academic research of which I am aware supporting the development of the ECAPM.[50] The end result of using adjusted betas in the ECAPM 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 49-50 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 5.

[50] *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.

FIGURE 5



Along the horizontal axis in Figure 5 above, I have provided the raw unadjusted beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown in Figure 5 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. There is not a legitimate basis 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.

Q IS THERE A WAY TO MEASURE THE COST OF EQUITY MORE ACCURATELY IF ONE WERE TO USE THE ECAPM?

A Yes, using the appropriate unadjusted beta in the ECAPM would produce a more reasonable return estimate. This can be accomplished by removing, or backing out, the adjustment made to *Value Line*'s published beta.

Removing *Value Line's* beta adjustment will produce the original regression beta estimate. Using this regression beta in the ECAPM will produce a more accurate result than that offered by Ms. Bulkley. As explained earlier, Ms. Bulkley's proxy group has an average current *Value Line* beta of 0.88. By removing the adjustments that *Value Line* made to produce the proxy group's average beta of 0.88, I have calculated the original regression beta of 0.79.[51] Using the regression beta of 0.79 in the ECAPM model shown above will produce an expected return estimate of approximately 10.1%.[52]

[51] Raw Beta = (VL Beta – 0.35) / 0.67,
Raw Beta = (0.88 – 0.35)/0.67 = 0.79.

[52] ECAPM = RF + 0.25 x MRP + 0.75 x MRP x Unadjusted Beta.
ECAPM = 2.37% + 0.25 x (11.82% - 2.37%) + 0.75 x 9.45% x 0.75 = 10.05%.

IV.E. Ms. Bulkley's Bond Yield Plus ("BYP") Risk Premium

Q PLEASE DESCRIBE MS. BULKLEY'S BYP RISK PREMIUM METHODOLOGY.

A As shown on her Exhibit AEB-7, 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 approximately 6.0% over the period January 1992 through March 2022. She then applies a regression formula to the current, near-term, and long-term projected 30-year Treasury bond yields of 2.37%, 3.12%, and 3.40%, respectively, to produce equity risk premiums of 7.31%, 6.88%, and 6.73%, respectively. Thus, she calculates return on equity estimates of 9.68%, 10.00%, and 10.13%, respectively.[53]

Q IS MS. BULKLEY'S BYP RISK PREMIUM METHODOLOGY REASONABLE?

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 quite 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 the relationship changes over time and is influenced by changes in perception of the

[53] Bulkley Direct Testimony at 52-54 and Exhibit AEB-7.

risk of bond investments relative to equity investments, and not simply changes to interest rates.[54]

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.[55] 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 change between the risk of equity versus debt investments, and not simply changes in interest rates.

Importantly, Ms. Bulkley's analysis 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.

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[54] 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.

[55] "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 BYP 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 on equity are not directly adjusted by market forces. While I also use Commission-authorized returns as a proxy for market-required returns, of significance is the 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 DO YOU HAVE ANY OTHER COMMENTS CONCERNING MS. BULKLEY'S BYP RISK PREMIUM METHODOLOGY?

A Yes. Similar to her CAPM analysis, in her BYP risk premium, Ms. Bulkley's use of a long-term projected bond yield of 3.40%[56] does not reflect market participants' outlooks for ETI's cost of capital during the period rates determined in this proceeding will be in effect. Therefore, Ms. Bulkley's use of projected bond yields five years out should be rejected.

[56] Exhibit AEB-7.

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

A Yes. Ms. Bulkley's simplistic and incomplete notion that equity risk premiums change only with changes to nominal interest rates should be rejected. Adding her average equity risk premium over Treasury bonds of 6.05% to her Treasury yields of 2.37% and 3.12%, produces a BYP no higher than 9.20%.

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

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

A It appears so even if she did not make specific adjustments for those risks. Ms. Bulkley believes that ETI is exposed to additional risks that should be accounted for including: (1) ETI's capital expenditures, (2) regulatory risk, (3) customer concentration, (4) storm risk, and (5) management performance.[57] Ms. Bulkley believes that these additional risks should be considered in determining ETI's return on equity. However, she failed to recognize the fact that these additional risks are already incorporated in ETI's credit rating.

Q PLEASE EXPLAIN.

A The major 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-3, the average S&P credit rating for my proxy group of BBB+ is identical to ETI's credit rating from S&P. The relative risks discussed on pages 54-86 of Ms. Bulkley's Direct Testimony are already incorporated in the credit

[57] Bulkley Direct Testimony at 54-86.

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 ETI, in comparison to the proxy group, is fully absorbed into the market's perception of ETI's risk. The use of my proxy group fully captures the investment risk of ETI and is, in fact, conservative.

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.[58]

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 financial risk, and actual financial performance of Texas utilities generally (and ETI specifically) renders her analysis

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

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 ETI by reviewing a bond rating of the proxy group companies is a more complete and reliable assessment of total investment risk, including these specific line-item risks identified by Ms. Bulkley in selecting comparable risk proxy group companies.

IV.G. Capital Market Conditions

Q DID MS. BULKLEY ALSO OFFER AN ASSESSMENT OF CURRENT MARKET CONDITIONS IN SUPPORT OF HER RECOMMENDED RETURN ON EQUITY?

A Yes. Ms. Bulkley identifies several factors that she believes are helpful in evaluating the capital market environment and investor sentiment during the post-pandemic recovery period, including inflation, the Federal Reserve's monetary policy, rising interest rates, and volatile market conditions.[59]

Q DO YOU BELIEVE THAT MS. BULKLEY'S USE OF THESE MARKET SENTIMENTS SUPPORTS HER FINDINGS THAT ETI'S MARKET COST OF EQUITY IS CURRENTLY 10.50%?

A No. In many instances, Ms. Bulkley's analysis simply ignores market sentiments favorable toward utility companies and instead lumps utility investments in with general corporate investments. A fair analysis of utility securities shows the market generally regards utility securities as low-risk investment instruments and supports the finding that utilities' cost of capital is very low in today's marketplace.

[59] Testimony of Ann E. Bulkley, at 11-32.

Q WHAT IS YOUR ASSESSMENT OF CURRENT MARKET SENTIMENT FOR UTILITY INVESTMENTS?

A Again, the current market sentiment toward utility investments, rather than just general corporate investments, is that the market is placing high value on utility securities, recognizing their low risk and stable characteristics. This is illustrated by current utility bond yield spreads as discussed at length previously. The current strong utility bond valuation is an indication of the market's sentiment that utility bonds are lower risk and are generally regarded as defensive stocks by the investment industry.

Further, other measures of utility stock valuations also support the conclusion that there is a robust market for utility stocks. As shown on my Exhibit MPG-2, financial valuation measures (*e.g.*, P/E ratio and market price to cash flow ratio) show that utility stock valuation measures are robust.

For all these reasons, direct assessments of valuation measures and market sentiment toward utility securities support the credit rating agencies' findings, as quoted above, that the utility industry is largely regarded as a low-risk investment. All of this supports my finding that utilities' market cost of equity is very low in today's very low-cost capital market environment.

Q DO YOU HAVE ANY COMMENTS CONCERNING THE CURRENT INFLATION LEVELS DISCUSSED BY MS. BULKLEY?

A While I agree that the current inflation level is higher relative to historical standards, as discussed above, the Federal Reserve is committed to target inflation of 2%. Most importantly, credit analysts believe that utilities are well positioned to handle inflation. Specifically S&P states:

Key Takeaways

- Though we anticipate inflation to be a key focus for utility management teams, in general we expect the industry to maintain credit quality by efficiently passing these higher costs to their customers.

- We expect that inflation will raise almost all costs for a utility. This includes fuel, purchased power, operations and maintenance (O&M) costs such as labor and property taxes, and capital costs.

- Most states have regulatory mechanisms in place to help utilities cope with inflationary O&M cost pressures. Though some utilities will experience marginally weaker financial measures associated with the regulatory lag for rising O&M costs, our analysis indicates that the credit quality of just a few utilities could be affected.

- While we also expect capital costs to rise, we expect that the industry will effectively reduce such risks by effectively managing their capital budgets.[60]

Q DO YOU HAVE ANY COMMENTS CONCERNING MS. BULKLEY'S CONTENTION THAT RELYING ON PROJECTED MARKET DATA IS CURRENTLY VERY IMPORTANT?

A Ms. Bulkley develops her CAPM studies mainly relying on near-term and long-term projected interest rates. Ms. Bulkley's primary reliance on forecasted Treasury bond yields is unreasonable because she is not considering the highly likely outcome that current observable interest rates will prevail during the period in which rates determined in this proceeding will be in effect. This is important because, while current observable interest rates constitute actual market data and an objective measure of the current cost of capital, relying on interest rate forecasts is highly problematic.

[60] *Standard & Poor's RatingsDirect*: "Although Not Immune, North American Investor-Owned Utilities Are Still Well-Positioned To Handle Inflation," August 18, 2022, at 1.

Q WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED INTEREST RATES IS HIGHLY PROBLEMATIC?

A Over the past several years, observable current interest rates have been a more accurate predictor of future interest rates than economists' consensus projections. Exhibit MPG-20 illustrates this point. Specifically, on Exhibit MPG-20, under Columns 1 and 2, I show the actual market yield for Treasury bonds at the time a projection is made, and the corresponding projection for Treasury bond yields two years in the future, respectively.

As shown in Columns 1 and 2 of Exhibit MPG-20, over the past several years, Treasury yields were projected to increase relative to the actual Treasury yields at the time of the projection. In Column 4 of the same exhibit, I show the actual Treasury yield two years after the forecast. In Column 5, I show the actual yield change at the time of the projections relative to the projected yield change.

As shown in Exhibit MPG-20, economists have consistently projected interest rate increases over the near term. However, as shown in Column 5, those yield projections, over the course of the past decade, almost always turned out to be overstated. Indeed, actual Treasury yields have *decreased*, or else remained flat, over the course of the past several years. Accordingly, current observable interest rates are just as likely to accurately predict future interest rates as are economists' projections.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Michael P. Gorman

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 PLEASE STATE YOUR OCCUPATION.

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

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A In 1983 I received a Bachelor of Science Degree in Electrical Engineering from Southern Illinois University, and in 1986, I received a Master's Degree in Business Administration with a concentration in Finance from the University of Illinois at Springfield. I have also completed several graduate level economics courses.

In August of 1983, I accepted an analyst position with the Illinois Commerce Commission ("ICC"). In this position, I performed a variety of analyses for both formal and informal investigations before the ICC, including: marginal cost of energy, central dispatch, avoided cost of energy, annual system production costs, and working capital. In October of 1986, I was promoted to the position of Senior Analyst. In this position, I assumed the additional responsibilities of technical leader on projects, and my areas of responsibility were expanded to include utility financial modeling and financial analyses.

In 1987, I was promoted to Director of the Financial Analysis Department. In this position, I was responsible for all financial analyses conducted by the Staff. Among other things, I conducted analyses and sponsored testimony before the ICC on rate of return, financial integrity, financial modeling and related issues. I also supervised the development of all Staff analyses and testimony on these same issues. In addition, I supervised the Staff's review and recommendations to the Commission concerning utility plans to issue debt and equity securities.

In August of 1989, I accepted a position with Merrill-Lynch as a financial consultant. After receiving all required securities licenses, I worked with individual investors and small businesses in evaluating and selecting investments suitable to their requirements.

In September of 1990, I accepted a position with Drazen-Brubaker & Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and Staff. Since 1990, I have performed various analyses and sponsored testimony on cost of capital, cost/benefits of utility mergers and acquisitions, utility reorganizations, level of operating expenses and rate base, cost of service studies, and analyses relating to industrial jobs and economic development. I also participated in a study used to revise the financial policy for the municipal utility in Kansas City, Kansas.

At BAI, I also have extensive experience working with large energy users to distribute and critically evaluate responses to requests for proposals ("RFPs") for electric, steam, and gas energy supply from competitive energy suppliers. These analyses include the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle unit feasibility studies, and the evaluation of third-party

asset/supply management agreements. I have participated in rate cases on rate design and class cost of service for electric, natural gas, water and wastewater utilities. I have also analyzed commodity pricing indices and forward pricing methods for third party supply agreements, and have also conducted regional electric market price forecasts.

In addition to our main office in St. Louis, the firm also has branch offices in Corpus Christi, Texas; Detroit, Michigan; Louisville, Kentucky and Phoenix, Arizona.

Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of service and other issues before the Federal Energy Regulatory Commission and numerous state regulatory commissions including: Alaska, Arkansas, Arizona, California, Colorado, Delaware, the District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta, Nova Scotia, and Quebec, Canada. I have also sponsored testimony before the Board of Public Utilities in Kansas City, Kansas; presented rate setting position reports to the regulatory board of the municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers; and negotiated rate disputes for industrial customers of the Municipal Electric Authority of Georgia in the LaGrange, Georgia district.

Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZATIONS TO WHICH YOU BELONG.

A I earned the designation of Chartered Financial Analyst ("CFA") from the CFA Institute. The CFA charter was awarded after successfully completing three examinations which covered the subject areas of financial accounting, economics, fixed income and equity valuation and professional and ethical conduct. I am a member of the CFA Institute's Financial Analyst Society.

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Entergy Texas, Inc.

Rate of Return
(December 31, 2021)

Line	Description	Amount (1)	Weight (2)	Cost (3)	Weighted Cost (4)
1	Long-Term Debt	$ 2,289,835,267	47.97%	3.47%	1.66%
2	Preferred Equity	$ 38,750,000	0.81%	5.35%	0.04%
3	Common Equity	$ 2,444,456,560	51.21%	**9.40%**	4.81%
4	**Total**	**$ 4,773,041,827**	**100.00%**		**6.52%**

Source:
Schedule K-1.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Price to Earnings (P/E) Ratio [1]

Line	Company	21-Year Average	2022 [2]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1	ALLETE	18.08	15.70	16.70	18.28	24.75	22.17	23.05	18.63	15.06	17.23	18.59	15.88	14.66	15.98	16.08	13.95	14.78	16.55	17.91	25.21	N/A	N/A
2	Alliant Energy	16.81	22.10	21.90	21.23	21.16	19.14	20.60	22.30	18.07	16.60	15.28	14.50	14.45	12.47	13.86	13.43	15.08	16.82	12.59	14.00	12.69	19.93
3	Ameren Corp.	16.54	23.10	21.10	22.23	22.09	18.29	20.60	18.29	17.55	16.71	16.52	13.35	11.93	9.66	9.26	14.21	17.45	19.39	16.72	16.28	13.51	15.78
4	American Electric Power	14.92	21.00	17.90	19.57	21.41	18.04	19.33	15.16	15.77	15.88	14.49	13.77	11.92	13.42	10.03	13.06	16.27	12.91	13.70	12.42	10.66	12.68
5	Avangrid, Inc.	25.91	23.90	19.10	25.34	22.15	26.05	27.27	20.49	40.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	18.52	21.80	22.30	21.18	14.98	24.54	23.37	18.80	17.60	17.28	14.64	19.30	14.08	12.74	11.42	14.97	30.88	15.39	19.45	24.43	13.84	19.27
7	Black Hills	17.90	17.50	20.00	17.00	21.18	16.82	19.48	22.29	16.14	19.03	18.24	17.13	31.13	18.10	9.93	N/A	15.02	15.77	17.27	17.13	15.95	12.52
8	CenterPoint Energy	16.63	23.30	26.60	15.92	19.45	36.99	17.91	21.91	18.10	16.96	18.75	14.85	14.58	13.78	11.81	11.27	15.00	10.27	19.06	17.84	6.05	5.59
9	CMS Energy Corp.	18.08	23.50	23.70	23.32	24.28	20.31	21.32	20.94	18.29	17.30	16.32	15.07	13.62	12.46	13.56	10.87	26.84	22.18	12.60	12.39	N/A	N/A
10	Consol. Edison	16.09	21.20	20.00	20.08	21.10	17.10	19.77	18.80	15.59	15.90	14.72	15.39	15.08	13.30	12.55	12.29	13.78	15.49	15.13	18.21	14.30	13.28
11	Dominion Resources	20.49	19.80	20.00	43.94	35.21	21.80	22.17	21.33	22.14	22.97	19.25	18.91	17.27	14.35	12.74	13.78	20.63	15.98	24.89	15.07	15.24	12.05
12	DTE Energy	15.90	28.10	19.60	16.30	19.88	17.41	18.59	18.97	18.11	14.91	17.92	14.89	13.51	12.27	10.41	14.81	18.27	17.43	13.80	16.04	13.69	11.28
13	Duke Energy	17.72	20.20	20.90	22.40	17.71	19.41	19.93	21.25	18.22	17.91	17.45	17.46	13.76	12.69	13.32	17.28	16.13	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	15.26	13.90	15.60	34.93	16.66	N/A	17.23	17.92	14.77	13.05	12.70	9.71	11.81	10.32	9.72	12.36	16.03	12.99	11.74	37.59	6.97	7.78
15	El Paso Electric	17.68	N/A	N/A	N/A	N/A	26.85	21.78	18.66	18.33	16.38	15.88	14.47	12.60	10.72	10.79	11.89	15.26	16.92	26.72	22.03	18.26	22.99
16	Entergy Corp.	13.81	18.10	15.40	15.26	16.50	13.81	15.01	10.92	12.53	12.89	13.21	11.22	9.06	11.57	11.98	16.56	19.30	14.28	16.28	15.09	13.77	11.53
17	Eversource Energy	18.38	21.50	21.30	24.33	22.11	18.73	19.47	18.69	18.11	17.92	16.94	19.86	15.35	13.42	11.96	13.66	18.75	27.07	19.76	20.77	13.35	16.07
18	Evergy, Inc.	21.02	19.40	17.90	21.71	21.76	22.71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	15.11	20.50	20.70	15.39	15.75	20.09	13.41	18.68	12.58	16.02	13.43	19.08	11.30	10.97	11.49	17.97	18.22	16.53	15.37	12.99	11.77	10.46
20	FirstEnergy Corp.	18.25	16.60	17.90	20.24	23.78	26.47	11.41	15.91	17.02	39.79	13.06	21.10	22.39	11.75	13.02	15.64	15.59	14.23	16.07	14.13	22.47	12.95
21	Fortis Inc.	19.29	21.00	21.30	20.63	19.22	17.08	16.81	21.60	18.00	24.29	19.97	20.12	18.79	18.22	16.36	17.48	21.14	17.68	N/A	N/A	N/A	N/A
22	Great Plains Energy	15.52	N/A	N/A	N/A	N/A	N/A	NMF	17.98	19.37	16.47	14.19	15.53	16.11	12.10	16.03	20.55	16.35	18.30	13.96	12.59	12.23	11.09
23	Hawaiian Elec.	18.51	18.60	20.70	21.48	21.27	18.95	20.69	13.56	20.40	15.88	16.21	15.81	17.09	18.59	19.79	23.16	21.57	20.33	18.27	19.18	13.76	13.47
24	IDACORP, Inc.	17.05	21.10	23.50	19.88	22.31	20.50	20.60	19.06	16.22	14.67	13.45	12.41	11.54	11.83	10.20	13.93	18.19	15.07	16.70	15.49	26.51	18.88
25	NextEra Energy, Inc.	18.46	29.30	32.50	31.75	26.79	24.80	21.65	20.71	16.89	17.25	16.57	14.43	11.54	10.83	13.42	14.48	18.90	13.65	17.88	13.65	17.88	13.60
26	NorthWestern Corp	17.22	17.50	18.70	19.49	19.89	16.77	17.85	17.19	18.36	16.24	16.86	15.72	12.62	12.90	11.54	13.87	21.74	25.95	17.09	N/A	N/A	N/A
27	OGE Energy	15.26	18.60	15.20	16.25	19.00	16.53	18.32	17.68	17.69	18.27	17.69	15.16	14.37	13.31	10.83	12.41	13.75	13.68	14.95	14.13	11.84	14.12
28	Otter Tail Corp.	23.34	13.60	13.80	18.31	23.51	22.25	22.06	20.19	18.20	18.84	21.12	21.75	47.48	55.10	31.16	30.06	19.02	17.35	15.40	17.34	17.77	16.01
29	Pinnacle West Capital	16.12	17.90	19.90	16.71	19.37	17.82	19.28	18.74	16.04	15.89	15.27	14.35	14.60	12.57	13.74	16.07	14.93	13.69	19.24	15.80	13.96	14.43
30	PNM Resources	18.55	18.70	20.20	20.79	21.08	23.39	20.43	19.83	16.85	18.68	16.13	14.97	14.53	14.05	18.09	N/A	35.65	15.57	17.38	15.02	14.73	15.08
31	Portland General	17.52	18.80	19.60	26.57	22.31	18.42	20.03	19.06	17.71	15.32	16.88	13.98	12.37	12.00	14.40	16.30	11.94	23.35	N/A	N/A	N/A	N/A
32	PPL Corp.	14.44	20.40	21.60	13.94	13.29	11.33	17.65	12.83	13.92	14.08	12.84	10.88	10.52	11.93	25.69	17.64	17.26	14.10	15.12	12.51	10.59	11.06
33	Public Serv. Enterprise	14.67	19.80	31.30	14.91	15.10	18.71	16.31	15.35	12.41	12.61	13.50	12.79	10.40	10.37	10.04	13.65	16.54	17.81	16.74	14.26	10.58	10.00
34	SCANA Corp.	13.96	N/A	N/A	N/A	N/A	N/A	14.46	16.80	14.67	13.68	14.43	14.80	13.67	12.93	11.63	12.67	14.96	15.42	14.44	13.57	13.05	12.17
35	Sempra Energy	15.84	17.80	20.10	19.62	22.50	20.40	24.33	24.37	19.73	21.87	19.68	14.89	11.77	12.60	10.09	11.80	14.01	11.50	11.79	8.65	8.96	8.19
36	Southern Co.	16.10	21.40	20.60	17.91	17.58	15.06	15.48	17.76	15.85	16.04	16.19	16.97	15.85	14.90	13.52	16.13	15.95	16.19	15.92	14.68	14.83	14.63
37	Vectren Corp.	17.05	N/A	N/A	N/A	N/A	N/A	23.54	19.18	17.92	19.98	20.66	15.02	15.83	15.10	12.89	16.79	15.33	18.92	15.11	17.57	14.80	14.16
38	WEC Energy Group	17.21	23.90	21.30	24.89	23.49	19.57	20.01	19.95	21.33	17.71	16.50	15.76	14.25	14.01	13.35	14.77	16.47	15.97	14.46	17.51	12.43	10.46
39	Westar Energy	15.58	N/A	N/A	N/A	N/A	N/A	23.40	21.59	18.45	15.36	14.04	13.43	14.78	12.96	14.95	16.96	14.10	12.18	14.79	17.44	10.78	14.02
40	Xcel Energy Inc.	17.86	22.20	23.90	23.88	22.34	18.93	20.20	18.48	16.54	15.44	15.04	14.82	14.24	14.13	12.66	13.69	16.65	14.80	15.36	13.65	11.62	40.80
41	Average	17.25	20.34	20.65	21.30	20.88	20.21	19.60	18.77	17.73	17.45	16.17	15.51	15.28	14.22	13.53	15.29	17.83	16.53	16.39	16.61	13.71	14.26
42	Median	16.20	20.40	20.20	20.24	21.18	19.14	19.97	18.80	17.69	16.54	16.20	14.99	14.25	12.82	12.70	14.34	16.41	15.97	15.92	15.29	13.60	13.38

Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.
[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Market Price to Cash Flow (MP/CF) Ratio [1]

Line	Company	21-Year Average	2022 [2/a]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1	ALLETE	9.40	7.83	8.61	8.14	11.38	10.16	10.95	8.26	7.49	8.80	9.15	8.18	7.91	8.04	8.51	9.29	10.30	11.06	11.54	11.46	N/A	N/A
2	Alliant Energy	8.08	10.87	10.31	10.66	10.74	9.71	13.21	10.67	8.86	8.40	7.52	7.50	7.21	6.59	6.23	7.49	7.92	8.00	5.09	5.52	4.76	5.20
3	Ameren Corp.	7.27	9.46	9.03	9.63	9.45	7.95	8.38	7.44	6.87	6.95	6.61	5.48	5.02	4.23	4.25	6.35	7.69	8.57	8.57	8.24	6.74	7.96
4	American Electric Power	6.58	8.25	7.57	8.41	9.34	8.03	8.81	7.57	7.09	7.00	6.57	5.93	5.46	5.54	4.71	5.71	6.84	5.54	6.07	5.50	4.69	5.19
5	Avangrid, Inc.	9.99	9.11	11.19	9.39	9.11	10.24	10.14	8.56	11.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	6.86	8.22	8.03	7.80	7.34	10.14	9.35	7.63	6.76	7.30	6.21	6.88	6.40	5.80	4.06	5.12	7.58	5.30	6.58	7.58	5.36	5.90
7	Black Hills	7.87	9.37	8.84	8.56	10.65	8.83	9.20	9.33	8.06	8.81	8.03	6.04	7.85	6.16	4.25	11.26	7.62	6.92	7.57	6.69	6.89	5.92
8	CenterPoint Energy	5.34	8.08	7.95	5.94	7.03	8.45	6.97	5.96	5.75	6.25	6.56	5.15	5.39	4.70	4.05	4.29	5.17	3.94	4.70	4.26	2.08	2.16
9	CMS Energy Corp.	6.27	9.59	9.27	9.87	9.85	8.40	8.75	8.50	7.53	7.13	6.68	6.03	5.41	4.48	3.64	3.45	5.57	4.40	4.04	3.20	2.88	NMF
10	Consol. Edison	8.22	8.75	7.26	8.35	9.46	8.73	9.64	9.39	7.96	7.89	7.77	8.31	8.15	7.39	6.72	6.89	8.31	8.65	8.59	9.31	7.90	7.64
11	Dominion Resources	9.95	10.48	11.15	14.59	13.47	10.94	11.35	11.59	11.84	12.27	10.88	9.92	9.45	8.12	6.98	8.27	8.65	7.81	10.09	7.68	7.51	6.53
12	DTE Energy	6.68	10.04	10.62	7.85	9.67	8.54	9.05	8.64	8.52	6.42	6.65	5.91	5.18	4.69	3.59	4.90	5.73	5.21	5.54	6.00	5.62	5.20
13	Duke Energy	7.63	7.99	7.89	8.06	7.40	7.65	8.40	8.57	7.95	8.12	8.11	9.53	6.56	6.01	5.96	7.13	7.16	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	5.99	5.94	7.14	7.57	7.25	13.46	7.05	6.77	5.92	5.68	5.46	4.59	4.22	4.11	3.95	5.63	7.01	5.87	5.61	6.84	2.82	2.96
15	El Paso Electric	5.93	N/A	N/A	N/A	N/A	9.43	8.54	7.46	6.47	6.33	6.19	5.78	5.16	4.31	3.98	4.95	6.44	6.25	6.67	4.65	3.90	4.39
16	Entergy Corp.	5.72	6.39	5.61	5.78	6.05	4.92	4.66	4.01	4.11	4.21	4.03	4.23	3.90	4.66	5.68	7.96	9.21	7.16	8.76	7.12	6.84	5.57
17	Eversource Energy	7.43	10.53	11.41	12.53	11.47	9.16	10.36	10.14	10.12	10.14	8.08	9.30	6.99	4.97	4.61	4.12	6.18	6.02	3.55	3.78	2.85	2.75
18	Evergy, Inc.	7.41	8.22	7.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	5.95	7.50	5.08	4.44	5.29	5.05	4.45	4.80	4.70	5.09	4.61	5.54	5.86	5.10	5.98	9.65	9.89	8.62	7.97	6.29	5.71	4.97
20	FirstEnergy Corp.	6.75	8.49	6.60	9.23	11.09	8.84	4.76	5.12	5.38	7.43	6.15	7.42	7.33	4.49	4.91	7.58	7.89	7.53	6.04	5.15	6.90	5.10
21	Fortis Inc.	8.43	9.92	9.57	9.50	9.46	7.97	8.23	10.46	7.29	9.25	7.93	8.09	8.38	7.40	6.76	7.58	9.18	7.89	N/A	N/A	N/A	N/A
22	Great Plains Energy	6.89	N/A	N/A	N/A	N/A	N/A	14.62	8.63	6.66	6.45	5.73	6.09	5.74	4.49	5.06	7.71	7.13	7.68	6.70	6.52	5.92	5.14
23	Hawaiian Elec.	8.07	8.73	8.23	8.69	9.30	8.34	9.21	7.44	9.25	7.64	8.15	8.05	7.73	7.81	6.95	9.10	7.95	8.47	8.29	8.44	6.12	6.20
24	IDACORP, Inc.	8.70	12.40	11.84	11.38	12.75	11.72	11.56	10.95	9.37	8.59	7.78	7.05	6.64	6.52	5.31	7.10	8.23	7.73	7.55	7.15	7.27	7.53
25	NextEra Energy, Inc.	8.82	15.76	20.40	15.48	12.33	10.77	11.61	9.24	7.93	7.98	7.60	7.58	5.98	5.33	6.09	7.34	9.02	6.51	6.71	6.71	5.97	5.77
26	NorthWestern Corp	7.85	8.83	8.83	8.88	9.93	8.19	8.82	8.65	8.99	9.01	7.61	6.85	5.89	5.79	5.05	5.57	8.45	9.39	7.31	8.13	N/A	N/A
27	OGE Energy	7.92	8.27	7.64	8.38	10.58	9.36	10.52	9.03	9.25	10.65	9.93	7.35	7.48	6.61	5.37	6.43	7.58	7.50	7.04	6.73	5.62	5.39
28	Otter Tail Corp.	9.41	9.04	8.61	9.99	12.42	11.58	11.09	9.38	9.04	9.45	9.58	8.43	9.04	8.07	8.01	11.65	9.53	8.66	8.18	9.01	8.13	8.33
29	Pinnacle West Capital	6.25	6.56	6.19	7.49	8.30	7.09	8.73	7.89	6.91	7.03	6.85	6.34	5.80	5.65	3.84	4.19	4.76	4.48	7.48	5.88	4.80	5.21
30	PNM Resources	6.90	7.11	7.81	7.87	7.92	7.57	7.40	7.64	6.95	7.48	6.47	5.80	4.94	4.58	4.53	7.10	10.67	7.50	7.62	6.84	5.55	5.72
31	Portland General	5.93	6.89	6.48	6.72	7.65	6.56	7.45	7.12	6.73	5.49	6.06	5.08	4.86	4.13	4.63	4.81	5.34	5.74	N/A	N/A	N/A	N/A
32	PPL Corp.	7.79	9.11	13.74	7.46	7.99	7.02	10.11	8.37	8.73	7.32	6.59	5.87	5.98	7.46	8.82	9.17	8.90	7.58	7.57	6.49	5.41	5.30
33	Public Serv. Enterprise	7.73	10.37	11.32	8.22	8.72	9.48	8.67	8.56	6.66	6.48	6.40	6.40	6.03	6.04	6.20	8.46	9.83	8.41	8.59	7.17	6.79	6.24
34	SCANA Corp.	7.09	N/A	N/A	N/A	N/A	N/A	8.26	9.59	8.33	7.50	7.49	7.40	6.75	6.52	5.88	6.38	7.15	7.03	5.40	6.86	6.59	6.36
35	Sempra Energy	8.37	10.24	13.23	10.40	12.05	10.10	10.65	10.88	9.99	10.77	9.37	7.26	6.13	6.53	6.07	7.07	8.61	7.22	6.96	5.16	4.85	4.00
36	Southern Co.	8.20	9.55	8.72	8.34	8.80	7.05	7.49	8.83	8.23	8.42	8.30	8.75	8.22	7.79	7.08	8.18	8.62	8.47	8.41	8.28	8.28	7.83
37	Vectren Corp.	7.08	N/A	N/A	N/A	N/A	N/A	10.32	8.60	7.82	7.57	6.82	5.79	5.81	5.58	5.24	6.90	6.53	7.37	7.06	7.63	7.27	6.92
38	WEC Energy Group	9.07	12.07	11.99	13.67	12.88	10.82	11.04	10.95	12.90	10.27	9.58	9.24	8.43	8.15	6.87	7.57	7.84	7.27	6.40	6.27	4.91	4.27
39	Westar Energy	6.91	N/A	N/A	N/A	N/A	N/A	10.87	10.86	9.05	7.93	7.23	6.71	6.67	5.51	5.32	7.09	6.88	5.81	7.00	6.54	4.24	2.94
40	Xcel Energy Inc.	6.93	9.05	9.19	10.07	9.44	7.90	8.50	8.10	7.62	7.31	7.00	6.85	6.47	6.28	5.43	5.71	6.51	5.54	5.62	5.31	4.27	5.46
41	Average	7.54	9.11	9.28	9.10	9.60	8.86	9.21	8.50	7.96	7.81	7.31	6.91	6.49	5.94	5.54	6.98	7.73	7.11	7.05	6.70	5.62	5.50
42	Median	7.37	9.04	8.72	8.48	9.46	8.73	9.05	8.57	7.93	7.54	7.12	6.85	6.27	5.80	5.35	7.09	7.76	7.37	7.04	6.71	5.62	5.43

Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.
[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Note:
[a] Based on the average of the high and low price and the projected Cash Flow per share.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Market Price to Book Value (MP/BV) Ratio [1]																		
		18-Year Average	2022 [2/b]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1	ALLETE	1.59	1.33	1.43	1.39	1.91	1.79	1.78	1.53	1.37	1.42	1.51	1.34	1.35	1.28	1.15	1.55	1.89	2.09	2.22
2	Alliant Energy	1.78	2.39	2.26	2.30	2.32	2.16	2.38	2.17	1.86	1.86	1.70	1.57	1.46	1.31	1.04	1.33	1.67	1.52	1.33
3	Ameren Corp.	1.54	2.24	2.13	2.21	2.26	1.95	1.93	1.67	1.46	1.45	1.29	1.18	0.90	0.83	0.78	1.25	1.60	1.62	1.68
4	American Electric Power	1.62	2.01	1.87	2.09	2.20	1.82	1.88	1.81	1.55	1.54	1.40	1.31	1.23	1.23	1.08	1.48	1.85	1.56	1.57
5	Avangrid, Inc.	0.93	0.93	1.01	0.97	1.02	1.02	0.93	0.83	0.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.33	1.40	1.42	1.37	1.54	1.88	1.73	1.57	1.36	1.33	1.25	1.21	1.19	1.07	0.94	1.11	1.29	1.30	1.13
7	Black Hills	1.52	1.67	1.52	1.55	1.95	1.61	2.06	1.94	1.59	1.79	1.62	1.21	1.14	1.07	0.83	1.22	1.57	1.47	1.63
8	CenterPoint Energy	2.32	2.00	1.74	1.90	2.21	2.18	2.59	2.73	2.43	2.27	2.30	1.99	1.87	1.96	1.77	2.49	3.13	2.75	3.06
9	CMS Energy Corp.	2.14	2.89	2.69	3.24	3.28	2.81	2.93	2.72	2.43	2.26	2.09	1.91	1.66	1.48	1.10	1.23	1.82	1.42	1.32
10	Consol. Edison	1.41	1.54	1.34	1.44	1.59	1.49	1.63	1.58	1.42	1.34	1.38	1.47	1.38	1.22	1.08	1.17	1.47	1.47	1.52
11	Dominion Resources	2.61	2.35	2.37	2.72	2.18	2.40	2.94	3.15	3.34	3.55	2.97	2.84	2.37	2.01	1.80	2.42	2.69	2.07	2.50
12	DTE Energy	1.58	2.51	2.82	1.80	2.07	1.91	2.01	1.82	1.65	1.62	1.51	1.35	1.20	1.16	0.89	1.10	1.35	1.29	1.39
13	Duke Energy	1.25	1.69	1.58	1.47	1.47	1.33	1.41	1.35	1.29	1.28	1.19	1.12	1.11	1.00	0.91	1.06	1.15	N/A	N/A
14	Edison Int'l	1.67	1.70	1.67	1.62	1.80	1.97	2.17	1.92	1.76	1.68	1.57	1.53	1.24	1.07	1.04	1.56	2.05	1.80	1.93
15	El Paso Electric	1.56	N/A	N/A	N/A	N/A	1.94	1.87	1.68	1.48	1.52	1.49	1.59	1.64	1.17	0.98	1.33	1.69	1.71	1.76
16	Entergy Corp.	1.75	1.89	1.75	1.93	2.03	1.74	1.76	1.67	1.40	1.33	1.21	1.31	1.35	1.62	1.66	2.44	2.65	1.89	2.01
17	Eversource Energy	1.52	1.94	2.00	2.11	1.99	1.68	1.73	1.64	1.53	1.47	1.38	1.28	1.50	1.31	1.12	1.31	1.60	1.22	1.05
18	Evergy, Inc.	1.50	1.60	1.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	2.12	2.04	1.37	1.20	1.43	1.31	1.20	1.20	1.14	1.28	1.17	1.46	1.95	2.07	2.57	4.39	4.79	3.89	3.60
20	FirstEnergy Corp.	2.04	2.64	2.33	2.81	3.39	2.67	3.53	2.37	1.16	1.15	1.28	1.44	1.33	1.36	1.54	2.52	2.23	1.92	1.64
21	Fortis Inc.	1.47	1.57	1.48	1.47	1.41	1.24	1.41	1.26	1.33	1.35	1.45	1.59	1.59	1.56	1.33	1.48	1.63	1.96	N/A
22	Great Plains Energy	1.21	N/A	N/A	N/A	N/A	N/A	1.33	1.17	1.12	1.11	1.02	0.96	0.93	0.87	0.80	1.11	1.66	1.77	1.86
23	Hawaiian Elec.	1.66	1.88	1.81	1.82	2.02	1.76	1.76	1.63	1.71	1.49	1.54	1.62	1.54	1.44	1.16	1.61	1.57	2.01	1.78
24	IDACORP, Inc.	1.48	1.98	1.88	1.84	2.10	1.96	1.94	1.76	1.54	1.45	1.33	1.19	1.17	1.13	0.92	1.09	1.26	1.37	1.22
25	NextEra Energy, Inc.	2.26	4.09	4.27	3.58	2.75	2.32	2.35	2.30	2.09	2.15	1.93	1.74	1.55	1.49	1.70	2.06	2.34	1.80	1.93
26	NorthWestern Corp	1.46	1.32	1.43	1.45	1.74	1.48	1.64	1.68	1.60	1.54	1.56	1.42	1.35	1.22	1.07	1.15	1.48	1.65	1.42
27	OGE Energy	1.84	1.83	1.67	1.86	2.06	1.75	1.82	1.73	1.79	2.22	2.24	1.94	1.90	1.70	1.37	1.52	1.98	1.91	1.80
28	Otter Tail Corp.	1.87	2.54	2.33	2.04	2.62	2.49	2.33	1.90	1.78	1.90	1.96	1.58	1.35	1.19	1.18	1.71	1.93	1.76	1.74
29	Pinnacle West Capital	1.43	1.38	1.45	1.63	1.91	1.74	1.91	1.72	1.52	1.44	1.47	1.39	1.25	1.14	0.95	1.00	1.26	1.26	1.25
30	PNM Resources	1.32	1.70	1.86	1.87	2.28	1.83	1.84	1.56	1.33	1.21	1.09	0.98	0.80	0.69	0.56	0.66	1.23	1.21	1.45
31	Portland General	1.35	1.64	1.55	1.57	1.84	1.56	1.69	1.56	1.42	1.37	1.28	1.14	1.09	0.94	0.92	1.05	1.32	1.36	N/A
32	PPL Corp.	2.06	1.44	1.52	1.63	1.86	1.81	2.40	2.46	2.24	1.64	1.55	1.58	1.47	1.61	2.10	3.19	3.05	2.43	2.50
33	Public Serv. Enterprise	1.91	2.39	2.11	1.70	1.97	1.81	1.68	1.67	1.58	1.57	1.44	1.46	1.59	1.67	1.78	2.58	2.99	2.46	2.45
34	SCANA Corp.	1.51	N/A	N/A	N/A	N/A	N/A	1.65	1.74	1.47	1.48	1.48	1.48	1.36	1.33	1.20	1.45	1.62	1.64	1.72
35	Sempra Energy	1.80	1.82	1.64	1.84	2.22	2.06	2.24	2.00	2.17	2.20	1.84	1.53	1.28	1.35	1.32	1.60	1.87	1.70	1.73
36	Southern Co.	2.08	2.58	2.39	2.20	2.13	1.89	2.07	2.01	1.99	2.02	2.04	2.15	1.99	1.83	1.73	2.12	2.24	2.23	2.35
37	Vectren Corp.	1.83	N/A	N/A	N/A	N/A	N/A	2.75	2.29	2.11	2.08	1.82	1.57	1.53	1.41	1.34	1.64	1.74	1.77	1.82
38	WEC Energy Group	2.02	2.72	2.61	2.84	2.62	2.11	2.10	2.09	1.82	2.34	2.21	2.05	1.81	1.65	1.40	1.57	1.77	1.71	1.62
39	Westar Energy	1.37	N/A	N/A	N/A	N/A	N/A	1.94	1.95	1.49	1.44	1.33	1.26	1.20	1.10	0.93	1.10	1.36	1.30	1.41
40	Xcel Energy Inc.	1.69	2.33	2.27	2.46	2.34	1.97	2.06	1.88	1.66	1.55	1.50	1.51	1.41	1.32	1.19	1.30	1.53	1.40	1.38
41	Average	1.71	2.00	1.92	1.94	2.07	1.87	1.98	1.84	1.66	1.68	1.59	1.51	1.42	1.34	1.24	1.63	1.90	1.77	1.79
42	Median	1.68	1.89	1.75	1.84	2.04	1.83	1.91	1.74	1.55	1.53	1.49	1.47	1.35	1.31	1.14	1.46	1.68	1.71	1.72

Sources:

[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
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[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

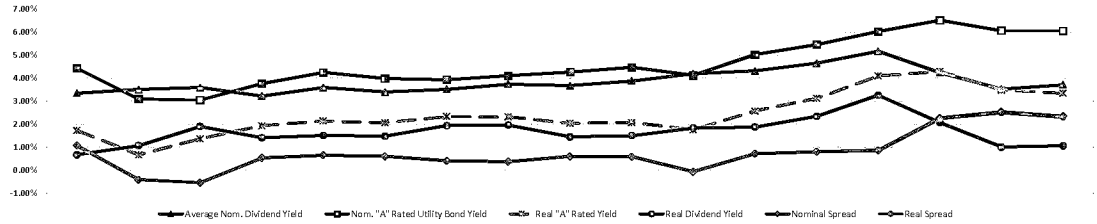
Notes:

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	17-Year Average (1)	2022 [2/a] (2)	2021 (3)	2020 (4)	2019 (5)	2018 (6)	2017 (7)	2016 (8)	2015 (9)	2014 (10)	2013 (11)	2012 (12)	2011 (13)	2010 (14)	2009 (15)	2008 (16)	2007 (17)	2006 (18)
								Dividend Yield[1]											
1	ALLETE	3.94%	4.15%	3.88%	4.03%	2.85%	2.99%	2.97%	3.56%	3.97%	3.92%	3.89%	4.49%	4.58%	5.03%	5.79%	4.37%	3.60%	3.16%
2	Alliant Energy	3.65%	2.86%	2.97%	2.90%	2.88%	3.20%	3.07%	3.21%	3.60%	3.53%	3.74%	4.07%	4.28%	4.61%	5.73%	4.10%	3.13%	3.32%
3	Ameren Corp.	4.26%	2.63%	2.74%	2.57%	2.59%	3.04%	3.12%	3.50%	3.96%	4.02%	4.61%	4.97%	5.28%	5.76%	5.98%	6.21%	4.88%	4.93%
4	American Electric Power	4.00%	3.34%	3.61%	3.28%	3.10%	3.60%	3.42%	3.54%	3.80%	3.83%	4.23%	4.58%	4.96%	4.90%	5.50%	4.20%	3.40%	4.06%
5	Avangrid, Inc.	3.71%	3.79%	3.53%	3.69%	3.52%	3.49%	3.79%	4.26%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	3.77%	4.08%	3.94%	4.03%	3.48%	2.93%	3.14%	3.39%	3.97%	3.99%	4.51%	4.55%	4.54%	4.76%	4.49%	3.39%	2.68%	2.52%
7	Black Hills	3.72%	3.32%	3.50%	3.42%	2.74%	3.31%	2.75%	2.87%	3.55%	2.84%	3.19%	4.39%	4.64%	4.79%	6.17%	4.21%	3.40%	3.79%
8	CenterPoint Energy	4.34%	2.41%	2.77%	4.38%	2.98%	4.09%	4.79%	4.70%	5.06%	3.94%	3.57%	4.04%	4.27%	5.29%	6.37%	4.98%	3.87%	4.39%
9	CMS Energy Corp.	3.20%	2.74%	2.92%	2.65%	2.64%	3.03%	2.88%	2.99%	3.36%	3.59%	3.76%	4.16%	4.25%	3.98%	3.97%	2.69%	1.16%	N/A
10	Consol. Edison	4.38%	3.49%	4.10%	3.87%	3.44%	3.68%	3.40%	3.62%	4.12%	4.38%	4.25%	4.07%	4.46%	5.16%	5.99%	5.67%	4.84%	5.04%
11	Dominion Resources	4.01%	3.31%	3.38%	4.31%	4.76%	4.72%	3.88%	3.82%	3.66%	3.43%	3.78%	4.06%	4.13%	4.41%	5.20%	3.77%	3.32%	3.60%
12	DTE Energy	4.05%	2.83%	3.06%	3.57%	3.07%	3.34%	3.15%	3.34%	3.53%	3.54%	3.94%	4.19%	4.68%	4.75%	6.29%	5.24%	4.36%	4.86%
13	Duke Energy	4.67%	3.76%	4.02%	4.35%	4.17%	4.54%	4.15%	4.26%	4.34%	4.26%	4.45%	4.68%	5.21%	5.71%	6.25%	5.16%	4.44%	N/A
14	Edison Int'l	3.23%	4.33%	4.39%	4.29%	3.73%	3.84%	2.87%	2.81%	2.83%	2.62%	2.85%	2.97%	3.37%	3.66%	3.95%	2.69%	2.21%	2.58%
15	El Paso Electric	2.74%	N/A	N/A	N/A	N/A	2.55%	2.49%	2.75%	3.13%	2.97%	2.99%	2.97%	2.11%	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	4.04%	3.60%	3.84%	3.55%	3.52%	4.41%	4.49%	4.55%	4.59%	4.47%	5.07%	4.91%	4.85%	4.20%	3.97%	2.92%	2.39%	2.82%
17	Eversource Energy	3.24%	2.97%	2.85%	2.63%	2.81%	3.32%	3.14%	3.22%	3.34%	3.40%	3.48%	3.52%	3.23%	3.64%	4.16%	3.25%	2.60%	3.27%
18	Evergy, Inc.	3.59%	3.52%	3.59%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	3.81%	2.75%	3.17%	3.82%	3.06%	3.32%	3.51%	3.75%	3.88%	3.69%	4.69%	5.73%	4.96%	4.95%	4.26%	2.78%	2.48%	2.83%
20	FirstEnergy Corp.	4.35%	3.71%	4.39%	4.17%	3.50%	5.17%	4.62%	4.31%	4.23%	4.26%	4.26%	4.90%	5.23%	5.76%	5.09%	3.21%	3.12%	3.40%
21	Fortis Inc.	3.68%	3.62%	3.77%	3.66%	3.60%	4.07%	3.69%	3.80%	3.76%	3.88%	3.84%	3.64%	3.58%	3.80%	4.21%	3.76%	3.01%	2.79%
22	Great Plains Energy	4.52%	N/A	N/A	N/A	N/A	N/A	3.58%	3.64%	3.76%	3.62%	3.84%	4.08%	4.15%	4.49%	5.03%	6.96%	5.49%	5.60%
23	Hawaiian Elec.	4.47%	3.38%	3.44%	3.40%	3.02%	3.54%	3.65%	3.99%	4.05%	4.76%	4.72%	4.70%	5.04%	5.51%	6.89%	5.00%	5.18%	4.59%
24	IDACORP, Inc.	3.17%	2.83%	2.89%	2.92%	2.49%	2.61%	2.58%	2.77%	3.06%	3.12%	3.21%	3.28%	3.10%	3.44%	4.46%	3.95%	3.55%	3.39%
25	NextEra Energy, Inc.	2.97%	2.11%	1.90%	2.10%	2.41%	2.68%	2.79%	2.91%	3.01%	3.02%	3.30%	3.65%	3.96%	3.90%	N/A	N/A	N/A	N/A
26	NorthWestern Corp	4.07%	4.29%	4.00%	4.02%	3.28%	3.86%	3.52%	3.43%	3.61%	3.30%	3.66%	4.17%	4.51%	4.93%	5.75%	5.38%	4.09%	3.65%
27	OGE Energy	3.75%	4.27%	4.81%	4.68%	3.54%	3.98%	3.61%	3.87%	3.51%	2.83%	2.48%	2.94%	3.06%	3.68%	4.96%	4.52%	3.77%	3.99%
28	Otter Tail Corp.	4.02%	2.36%	2.81%	3.45%	2.74%	2.92%	3.12%	3.87%	4.33%	4.14%	4.11%	5.21%	5.57%	5.68%	5.38%	3.63%	3.46%	3.92%
29	Pinnacle West Capital	4.48%	4.73%	4.44%	3.97%	3.29%	3.55%	3.16%	3.46%	3.88%	4.09%	3.98%	5.32%	4.81%	5.43%	6.76%	6.17%	4.75%	4.67%
30	PNM Resources	3.15%	3.08%	2.09%	2.80%	2.45%	2.79%	2.53%	2.69%	2.90%	2.79%	2.99%	2.96%	3.19%	4.09%	4.76%	4.85%	3.36%	3.21%
31	Portland General	3.67%	3.51%	3.62%	3.47%	2.85%	3.27%	2.92%	3.06%	3.27%	3.34%	3.67%	4.11%	4.37%	5.20%	5.36%	4.28%	3.34%	2.54%
32	PPL Corp.	4.61%	3.85%	5.83%	5.84%	5.24%	5.61%	4.24%	4.25%	4.55%	4.45%	4.81%	5.07%	5.10%	5.12%	4.51%	3.10%	2.69%	3.41%
33	Public Serv. Enterprise	3.76%	3.23%	3.37%	3.64%	3.19%	3.49%	3.74%	3.78%	3.81%	3.92%	4.35%	4.55%	4.24%	4.30%	4.30%	3.26%	2.73%	3.47%
34	SCANA Corp.	4.37%	N/A	N/A	N/A	N/A	N/A	4.03%	3.29%	3.90%	4.05%	4.15%	4.25%	4.78%	4.93%	5.67%	4.92%	4.29%	4.21%
35	Sempra Energy	2.98%	3.03%	3.39%	3.24%	2.88%	3.20%	2.92%	2.92%	2.71%	2.61%	3.03%	3.71%	3.65%	3.08%	3.23%	2.62%	2.08%	2.47%
36	Southern Co.	4.65%	3.87%	4.17%	4.36%	4.41%	5.27%	4.63%	4.42%	4.78%	4.69%	4.61%	4.29%	4.63%	5.13%	5.52%	4.58%	4.39%	4.52%
37	Vectren Corp.	4.38%	N/A	N/A	N/A	N/A	N/A	2.79%	3.31%	3.60%	3.62%	4.15%	4.82%	5.06%	5.53%	5.85%	4.79%	4.53%	4.52%
38	WEC Energy Group	3.02%	2.98%	3.00%	2.68%	2.81%	3.38%	3.31%	3.35%	3.49%	3.40%	3.49%	3.24%	3.35%	2.97%	3.16%	2.41%	2.14%	2.18%
39	Westar Energy	4.37%	N/A	N/A	N/A	N/A	N/A	3.00%	2.90%	3.73%	3.88%	4.27%	4.57%	4.84%	5.32%	6.27%	5.22%	4.16%	4.28%
40	Xcel Energy Inc.	3.76%	2.78%	2.81%	2.58%	2.75%	3.25%	3.10%	3.33%	3.69%	3.83%	3.86%	3.90%	4.20%	4.54%	5.14%	4.70%	4.05%	4.40%
41	**Average**	**3.95%**	**3.36%**	**3.52%**	**3.60%**	**3.23%**	**3.60%**	**3.40%**	**3.52%**	**3.74%**	**3.68%**	**3.89%**	**4.20%**	**4.32%**	**4.66%**	**5.18%**	**4.25%**	**3.53%**	**3.72%**
42	Median	3.62%	3.34%	3.50%	3.61%	3.06%	3.38%	3.16%	3.46%	3.75%	3.76%	3.85%	4.18%	4.48%	4.79%	5.28%	4.25%	3.43%	3.62%
43	20-Yr Treasury Yields[3]	3.17%	3.02%	1.98%	1.35%	2.40%	3.02%	2.65%	2.23%	2.55%	3.07%	3.12%	2.54%	3.62%	4.03%	4.11%	4.36%	4.91%	4.99%
44	20-Yr TIPS[3]	1.01%	0.35%	-0.43%	-0.30%	0.60%	0.94%	0.75%	0.66%	0.78%	0.87%	0.75%	0.21%	1.19%	1.73%	2.21%	2.19%	2.36%	2.31%
45	Implied Inflation[b]	2.14%	2.66%	2.42%	1.66%	1.79%	2.06%	1.89%	1.56%	1.75%	2.19%	2.35%	2.33%	2.40%	2.26%	1.85%	2.13%	2.49%	2.62%
46	**Real Dividend Yield[c]**	**1.67%**	**0.68%**	**1.07%**	**1.90%**	**1.41%**	**1.51%**	**1.48%**	**1.94%**	**1.96%**	**1.46%**	**1.50%**	**1.83%**	**1.88%**	**2.36%**	**3.26%**	**2.07%**	**1.01%**	**1.06%**
	A-Rated Utility																		
47	**Nominal "A" Rated Yield[4]**	**4.63%**	**4.44%**	**3.10%**	**3.05%**	**3.77%**	**4.25%**	**4.00%**	**3.93%**	**4.12%**	**4.28%**	**4.48%**	**4.13%**	**5.04%**	**5.46%**	**6.04%**	**6.53%**	**6.07%**	**6.07%**
48	**Real "A" Rated Yield**	**2.44%**	**1.73%**	**0.67%**	**1.37%**	**1.94%**	**2.14%**	**2.07%**	**2.34%**	**2.33%**	**2.04%**	**2.08%**	**1.76%**	**2.58%**	**3.13%**	**4.11%**	**4.31%**	**3.49%**	**3.36%**
	Baa-Rated Utility																		
49	**Nominal "Baa" Rated Yield**	**5.15%**	**4.75%**	**3.36%**	**3.44%**	**4.19%**	**4.67%**	**4.38%**	**4.67%**	**5.03%**	**4.80%**	**4.98%**	**4.83%**	**5.57%**	**5.96%**	**7.06%**	**7.25%**	**6.33%**	**6.32%**
50	**Real "Baa" Rated Yield**	**2.95%**	**2.03%**	**0.91%**	**1.74%**	**2.36%**	**2.55%**	**2.44%**	**3.07%**	**3.22%**	**2.55%**	**2.57%**	**2.44%**	**3.09%**	**3.62%**	**5.11%**	**5.01%**	**3.74%**	**3.60%**
	Spreads (A-Rated Utility Bond - Stock)																		
51	**Nominal Spread[d]**	**0.79%**	**1.08%**	**-0.41%**	**-0.55%**	**0.54%**	**0.65%**	**0.60%**	**0.41%**	**0.37%**	**0.60%**	**0.59%**	**-0.07%**	**0.72%**	**0.80%**	**0.86%**	**2.28%**	**2.55%**	**2.35%**
52	**Real Spread[e]**	**0.77%**	**1.05%**	**-0.40%**	**-0.54%**	**0.53%**	**0.64%**	**0.59%**	**0.40%**	**0.36%**	**0.59%**	**0.58%**	**-0.07%**	**0.70%**	**0.79%**	**0.85%**	**2.23%**	**2.49%**	**2.29%**
	Spreads (Baa-Rated Utility Bond - Stock)																		
53	**Nominal Spread[b]**	**1.30%**	**1.39%**	**-0.16%**	**-0.16%**	**0.97%**	**1.07%**	**0.98%**	**1.15%**	**1.28%**	**1.12%**	**1.10%**	**0.62%**	**1.24%**	**1.30%**	**1.88%**	**3.00%**	**2.80%**	**2.60%**
54	**Real Spread[c]**	**1.28%**	**1.36%**	**-0.16%**	**-0.16%**	**0.95%**	**1.05%**	**0.96%**	**1.13%**	**1.26%**	**1.10%**	**1.07%**	**0.61%**	**1.22%**	**1.28%**	**1.84%**	**2.93%**	**2.74%**	**2.53%**
	Spreads (Treasury Bond - Stock)																		
55	**Nominal[f]**	**-0.67%**	**-0.33%**	**-1.54%**	**-2.24%**	**-0.83%**	**-0.58%**	**-0.75%**	**-1.30%**	**-1.20%**	**-0.60%**	**-0.77%**	**-1.66%**	**-0.70%**	**-0.63%**	**-1.07%**	**0.11%**	**1.38%**	**1.28%**
56	**Real[g]**	**-0.66%**	**-0.32%**	**-1.50%**	**-2.21%**	**-0.81%**	**-0.57%**	**-0.73%**	**-1.28%**	**-1.18%**	**-0.59%**	**-0.75%**	**-1.62%**	**-0.68%**	**-0.62%**	**-1.05%**	**0.11%**	**1.35%**	**1.24%**

Trends in Dividend Yield and "A" Rated Utility Bond Yield



Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.
[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.
[3] St. Louis Federal Reserve: Economic Research, http://research.stlouisfed.org.
[4] www.moodys.com, Bond Yields and Key Indicators, through September 30, 2022.

Notes:
[a] Based on the average of the high and low price and the projected Dividends Declared per share, published in the Value Line Investment Survey.
[b] Line 47 = (1 + Line 45) / (1 + Line 46) - 1.
[c] Line 48 = (1 + Line 43) / (1 +Line 47) - 1.
[d] The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; (Line 49 - Line 43).
[e] The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; Line 50 - Line 48)
[f] The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield, (Line 45 - Line 43).
[g] The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield; Line 48 - Line 46)

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

			Dividend per Share[1]															
Line	Company	17-Year Average	2022[2]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	ALLETE	1.98	2.60	2.52	2.47	2.35	2.24	2.14	2.08	2.02	1.96	1.90	1.84	1.78	1.76	1.76	1.72	1.64	1.45
2	Alliant Energy	1.04	1.71	1.61	1.52	1.42	1.34	1.26	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.75	0.70	0.64	0.58
3	Ameren Corp.	1.89	2.36	2.20	2.00	1.92	1.85	1.78	1.72	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54	2.54
4	American Electric Power	2.10	3.17	3.00	2.84	2.71	2.53	2.39	2.27	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.64	1.58	1.50
5	Avangrid, Inc.	1.75	1.76	1.76	1.76	1.76	1.74	1.73	1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.18	1.76	1.69	1.62	1.55	1.49	1.43	1.37	1.32	1.27	1.22	1.16	1.10	1.00	0.81	0.69	0.60	0.57
7	Black Hills	1.66	2.41	2.29	2.17	2.05	1.93	1.81	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.42	1.40	1.37	1.32
8	CenterPoint Energy	0.87	0.71	0.66	0.90	0.86	1.12	1.35	1.03	0.99	0.95	0.83	0.81	0.79	0.78	0.76	0.73	0.68	0.60
9	CMS Energy Corp.	1.05	1.84	1.74	1.63	1.53	1.43	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	N/A
10	Consol. Edison	2.60	3.16	3.10	3.06	2.96	2.86	2.76	2.68	2.60	2.52	2.46	2.42	2.40	2.38	2.36	2.34	2.32	2.30
11	Dominion Resources	2.38	2.67	2.52	3.45	3.67	3.34	3.04	2.80	2.59	2.40	2.25	2.11	1.97	1.83	1.75	1.58	1.46	1.38
12	DTE Energy	2.83	3.60	3.88	4.12	3.85	3.59	3.36	3.06	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.12	2.08
13	Duke Energy	3.23	3.98	3.90	3.82	3.75	3.64	3.49	3.36	3.24	3.15	3.09	3.03	2.97	2.91	2.82	2.70	2.58	N/A
14	Edison Int'l	1.72	2.84	2.69	2.58	2.48	2.43	2.23	1.98	1.73	1.48	1.37	1.31	1.29	1.27	1.25	1.23	1.18	1.10
15	El Paso Electric	1.11	N/A	N/A	N/A	N/A	1.42	1.32	1.23	1.17	1.11	1.05	0.97	0.66	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	3.27	4.09	3.86	3.74	3.66	3.58	3.50	3.42	3.34	3.32	3.32	3.32	3.32	3.24	3.00	3.00	2.58	2.16
17	Eversource Energy	1.50	2.55	2.41	2.27	2.14	2.02	1.90	1.78	1.67	1.57	1.47	1.32	1.10	1.03	0.95	0.83	0.78	0.73
18	Evergy, Inc.	2.18	2.33	2.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	1.64	1.35	1.53	1.53	1.45	1.38	1.31	1.26	1.24	1.24	1.46	2.10	2.10	2.10	2.10	2.05	1.82	1.64
20	FirstEnergy Corp.	1.80	1.56	1.56	1.56	1.53	1.82	1.44	1.44	1.44	1.44	1.65	2.20	2.20	2.20	2.20	2.20	2.05	1.85
21	Fortis Inc.	1.37	2.21	2.08	1.97	1.86	1.75	1.65	1.55	1.43	1.30	1.25	1.21	1.17	1.12	1.04	1.00	0.82	0.67
22	Great Plains Energy	1.11	N/A	N/A	N/A	N/A	N/A	1.10	1.06	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66	1.66
23	Hawaiian Elec.	1.26	1.40	1.36	1.32	1.28	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
24	IDACORP, Inc.	1.79	3.05	2.88	2.72	2.56	2.40	2.24	2.08	1.92	1.76	1.57	1.37	1.20	1.20	1.20	1.20	1.20	1.20
25	NextEra Energy, Inc.	0.79	1.70	1.54	1.40	1.25	1.11	0.98	0.87	0.77	0.73	0.66	0.60	0.55	0.50	0.47	0.45	0.41	0.38
26	NorthWestern Corp	1.75	2.52	2.48	2.40	2.30	2.20	2.10	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.28	1.24
27	OGE Energy	1.03	1.66	1.63	1.58	1.51	1.40	1.27	1.16	1.05	0.95	0.85	0.80	0.76	0.73	0.71	0.70	0.68	0.67
28	Otter Tail Corp.	1.26	1.65	1.56	1.48	1.40	1.34	1.28	1.25	1.23	1.21	1.19	1.19	1.19	1.19	1.19	1.19	1.17	1.15
29	Pinnacle West Capital	2.50	3.44	3.36	3.23	3.04	2.87	2.70	2.56	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.10	2.03
30	PNM Resources	0.82	1.41	0.98	1.25	1.18	1.09	0.99	0.88	0.80	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.91	0.86
31	Portland General	1.19	1.79	1.70	1.59	1.52	1.43	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	0.68
32	PPL Corp.	1.47	1.07	1.66	1.66	1.65	1.64	1.58	1.52	1.50	1.49	1.47	1.44	1.40	1.40	1.38	1.34	1.22	1.10
33	Public Serv. Enterprise	1.54	2.16	2.04	1.96	1.88	1.80	1.72	1.64	1.56	1.48	1.44	1.42	1.37	1.37	1.33	1.29	1.17	1.14
34	SCANA Corp.	2.00	N/A	N/A	N/A	N/A	N/A	2.45	2.30	2.18	2.10	2.03	1.98	1.94	1.90	1.88	1.84	1.76	1.68
35	Sempra Energy	2.60	4.58	4.40	4.18	3.87	3.58	3.29	3.02	2.80	2.64	2.52	2.40	1.92	1.56	1.56	1.37	1.24	1.20
36	Southern Co.	2.06	2.70	2.62	2.54	2.46	2.38	2.30	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.60	1.54
37	Vectren Corp.	1.42	N/A	N/A	N/A	N/A	N/A	1.71	1.62	1.54	1.46	1.43	1.41	1.39	1.37	1.35	1.31	1.27	1.23
38	WEC Energy Group	1.49	2.91	2.71	2.53	2.36	2.21	2.08	1.98	1.74	1.56	1.45	1.20	1.04	0.80	0.68	0.54	0.50	0.46
39	Westar Energy	1.30	N/A	N/A	N/A	N/A	N/A	1.60	1.52	1.44	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08	0.98
40	Xcel Energy Inc.	1.24	1.95	1.83	1.72	1.62	1.52	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.91	0.88
41	**Average**	**1.74**	**2.36**	**2.28**	**2.25**	**2.16**	**2.05**	**1.91**	**1.80**	**1.71**	**1.62**	**1.57**	**1.55**	**1.47**	**1.43**	**1.39**	**1.40**	**1.33**	**1.25**
42	**Industry Average Growth**	**4.08%**	**3.40%**	**1.43%**	**4.36%**	**5.33%**	**7.06%**	**6.02%**	**5.44%**	**5.37%**	**3.48%**	**0.97%**	**5.83%**	**2.45%**	**3.16%**	**-0.52%**	**4.95%**	**6.51%**	

Sources:

[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.

[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Earnings per Share[1] 17-Year Average (1)	2022[2] (2)	2021 (3)	2020 (4)	2019 (5)	2018 (6)	2017 (7)	2016 (8)	2015 (9)	2014 (10)	2013 (11)	2012 (12)	2011 (13)	2010 (14)	2009 (15)	2008 (16)	2007 (17)	2006 (18)
1	ALLETE	2.90	3.75	3.23	3.35	3.33	3.38	3.13	3.14	3.38	2.90	2.63	2.58	2.65	2.19	1.89	2.82	3.08	2.77
2	Alliant Energy	1.70	2.80	2.63	2.47	2.33	2.19	1.99	1.65	1.69	1.74	1.65	1.53	1.38	1.38	0.95	1.27	1.35	1.03
3	Ameren Corp.	2.83	4.10	3.84	3.50	3.35	3.32	2.77	2.68	2.38	2.40	2.10	2.41	2.47	2.77	2.78	2.88	2.98	2.66
4	American Electric Power	3.48	5.20	4.96	4.42	4.08	3.90	3.62	4.23	3.59	3.34	3.18	2.98	3.13	2.60	2.97	2.99	2.86	2.86
5	Avangrid, Inc.	1.79	2.35	1.97	1.88	2.26	1.92	1.67	1.98	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.78	1.95	2.10	1.90	2.97	2.07	1.95	2.15	1.89	1.84	1.85	1.32	1.72	1.65	1.58	1.36	0.72	1.47
7	Black Hills	2.55	4.10	3.74	3.73	3.53	3.47	3.38	2.63	2.83	2.89	2.61	1.97	1.01	1.66	2.32	0.18	2.68	2.21
8	CenterPoint Energy	1.20	1.40	0.94	1.29	1.49	0.74	1.57	1.00	1.08	1.42	1.24	1.35	1.27	1.07	1.01	1.30	1.17	1.33
9	CMS Energy Corp.	1.70	2.90	2.58	2.64	2.39	2.32	2.17	1.98	1.89	1.74	1.66	1.53	1.45	1.33	0.93	1.23	0.64	0.64
10	Consol. Edison	3.80	4.55	4.74	3.94	4.08	4.55	4.10	3.94	4.05	3.62	3.93	3.86	3.57	3.47	3.14	3.36	3.48	2.95
11	Dominion Resources	2.84	4.10	3.19	1.82	2.19	3.25	3.53	3.44	3.20	3.05	3.09	2.75	2.76	2.89	2.64	3.04	2.13	2.40
12	DTE Energy	4.37	4.75	4.10	7.08	6.31	6.17	5.73	4.83	4.44	5.10	3.76	3.88	3.67	3.74	3.24	2.73	2.66	2.45
13	Duke Energy	3.93	5.45	4.93	3.92	5.07	4.13	4.22	3.71	4.10	4.13	3.98	3.71	4.14	4.02	3.39	3.03	3.60	2.73
14	Edison Int'l	3.24	4.50	2.00	1.72	3.98	-1.26	4.51	3.94	4.15	4.33	3.78	4.55	3.23	3.35	3.24	3.68	3.32	3.28
15	El Paso Electric	2.02	N/A	N/A	N/A	N/A	2.07	2.42	2.39	2.03	2.27	2.20	2.26	2.48	2.07	1.50	1.73	1.63	1.27
16	Entergy Corp.	6.14	6.60	6.87	6.90	6.30	5.88	5.19	6.88	5.81	5.77	4.96	6.02	7.55	6.66	6.30	6.20	5.60	5.36
17	Eversource Energy	2.51	4.10	3.54	3.55	3.45	3.25	3.11	2.96	2.76	2.58	2.49	1.89	2.22	2.10	1.91	1.86	1.59	0.82
18	Evergy, Inc.	3.83	3.55	3.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	2.90	2.55	1.74	2.60	3.01	2.07	2.78	1.80	2.54	2.10	2.31	1.92	3.75	3.87	4.29	4.10	4.03	3.50
20	FirstEnergy Corp.	2.59	2.40	2.69	1.85	1.84	1.33	2.73	2.10	2.00	0.85	2.97	2.13	1.88	3.25	3.32	4.38	4.22	3.82
21	Fortis Inc.	1.92	2.75	2.61	2.60	2.68	2.52	2.66	1.89	2.11	1.38	1.63	1.65	1.74	1.62	1.51	1.52	1.29	1.36
22	Great Plains Energy	1.33	N/A	N/A	N/A	N/A	N/A	-0.06	1.61	1.37	1.57	1.62	1.35	1.25	1.53	1.03	1.16	1.85	1.62
23	Hawaiian Elec.	1.58	2.15	2.25	1.81	1.99	1.85	1.64	2.29	1.50	1.64	1.62	1.67	1.44	1.21	0.91	1.07	1.11	1.33
24	IDACORP, Inc.	3.55	5.00	4.85	4.69	4.61	4.49	4.21	3.94	3.87	3.85	3.64	3.37	3.36	2.95	2.64	2.18	1.86	2.35
25	NextEra Energy, Inc.	1.37	2.85	1.81	2.10	1.94	1.67	1.63	1.45	1.52	1.40	1.21	1.14	1.21	1.19	0.99	1.02	0.82	0.81
26	NorthWestern Corp	2.63	3.30	3.60	3.06	3.53	3.40	3.34	3.39	2.90	2.99	2.46	2.26	2.53	2.14	2.02	1.77	1.44	1.31
27	OGE Energy	1.76	2.25	2.36	2.08	2.24	2.12	1.92	1.69	1.69	1.98	1.94	1.79	1.73	1.50	1.33	1.25	1.32	1.23
28	Otter Tail Corp.	1.62	6.00	4.23	2.34	2.17	2.06	1.86	1.60	1.56	1.55	1.37	1.05	0.45	0.38	0.71	1.09	1.78	1.69
29	Pinnacle West Capital	3.70	4.00	5.47	4.87	4.77	4.54	4.43	3.95	3.92	3.58	3.66	3.50	2.99	3.08	2.26	2.12	2.96	3.17
30	PNM Resources	1.43	2.55	2.27	2.15	2.28	1.66	1.92	1.65	1.64	1.45	1.41	1.31	1.08	0.87	0.58	0.11	0.76	1.72
31	Portland General	1.96	2.60	2.72	1.72	2.39	2.37	2.29	2.16	2.04	2.18	1.77	1.87	1.95	1.66	1.31	1.39	2.33	1.14
32	PPL Corp.	2.23	1.37	0.53	2.04	2.37	2.58	2.11	2.79	2.37	2.38	2.38	2.61	2.61	2.29	1.19	2.45	2.63	2.29
33	Public Serv. Enterprise	2.89	3.45	2.55	3.61	3.90	2.76	2.82	2.83	3.30	2.99	2.45	2.44	3.11	3.07	3.08	2.90	2.59	1.85
34	SCANA Corp.	3.30	N/A	N/A	N/A	N/A	N/A	4.20	4.16	3.81	3.79	3.39	3.15	2.97	2.98	2.85	2.95	2.74	2.59
35	Sempra Energy	4.72	8.35	4.01	6.58	5.97	5.48	4.63	4.24	5.23	4.63	4.22	4.35	4.47	4.02	4.78	4.43	4.26	4.23
36	Southern Co.	2.73	3.55	3.42	3.25	3.17	3.00	3.21	2.83	2.84	2.77	2.70	2.67	2.55	2.36	2.32	2.25	2.28	2.10
37	Vectren Corp.	1.94	N/A	N/A	N/A	N/A	N/A	2.60	2.55	2.39	2.02	1.66	1.94	1.73	1.64	1.79	1.63	1.83	1.44
38	WEC Energy Group	2.54	4.40	4.11	3.79	3.58	3.34	3.14	2.96	2.34	2.59	2.51	2.35	2.18	1.92	1.60	1.52	1.42	1.32
39	Westar Energy	1.96	N/A	N/A	N/A	N/A	N/A	2.27	2.43	2.09	2.35	2.27	2.15	1.79	1.80	1.28	1.31	1.84	1.88
40	Xcel Energy Inc.	2.01	3.15	2.96	2.79	2.64	2.47	2.30	2.21	2.10	2.03	1.91	1.85	1.72	1.56	1.49	1.46	1.35	1.35
41	**Average**	**2.70**	**3.68**	**3.24**	**3.18**	**3.30**	**2.89**	**2.92**	**2.82**	**2.70**	**2.66**	**2.53**	**2.45**	**2.45**	**2.36**	**2.19**	**2.20**	**2.27**	**2.11**
42	**Industry Average Growth**	**3.65%**	**13.63%**	**1.94%**	**-3.70%**	**14.28%**	**-0.95%**	**3.31%**	**4.55%**	**1.35%**	**5.18%**	**3.33%**	**-0.08%**	**3.73%**	**8.14%**	**-0.77%**	**-2.88%**	**7.31%**	

Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.
[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Cash Flow / Capital Spending 2019[1] (1)	2020[1] (2)	2021[2] (3)	2022[3] (4)	2023[4] (5)	3 - 5 yr[4] Projection (5)
1	ALLETE	0.63x	0.74x	0.80x	2.26x	1.43x	1.34x
2	Alliant Energy	0.73x	0.82x	0.97x	0.94x	0.97x	1.08x
3	Ameren Corp.	0.79x	0.51x	0.59x	0.72x	0.80x	0.90x
4	American Electric Power	0.75x	0.74x	0.69x	0.73x	0.84x	1.00x
5	Avangrid, Inc.	0.70x	0.56x	0.62x	0.61x	0.58x	0.63x
6	Avista Corp.	0.89x	0.85x	0.87x	0.83x	1.10x	1.13x
7	Black Hills	0.51x	0.72x	0.76x	0.85x	0.93x	0.99x
8	CenterPoint Energy	0.83x	0.88x	0.62x	0.62x	0.52x	0.62x
9	CMS Energy Corp.	0.79x	0.82x	0.77x	0.78x	0.75x	0.90x
10	Consol. Edison	0.79x	0.82x	0.89x	0.83x	0.73x	0.84x
11	Dominion Resources	0.81x	1.00x	0.89x	0.74x	0.67x	1.07x
12	DTE Energy	0.83x	0.67x	0.70x	0.75x	0.83x	0.92x
13	Duke Energy	0.78x	0.86x	0.93x	0.81x	0.84x	0.96x
14	Edison Int'l	0.69x	0.67x	0.74x	0.67x	0.79x	0.81x
15	El Paso Electric	0.96x	1.00x	0.83x	N/A	N/A	N/A
16	Entergy Corp.	0.79x	0.81x	1.05x	0.98x	0.94x	1.04x
17	Eversource Energy	0.78x	0.95x	0.74x	0.72x	0.81x	1.05x
18	Evergy, Inc.	1.34x	1.06x	0.96x	0.94x	0.91x	1.05x
19	Exelon Corp.	1.18x	1.30x	1.32x	0.96x	0.99x	1.07x
20	FirstEnergy Corp.	0.74x	0.96x	0.91x	0.86x	0.89x	0.98x
21	Fortis Inc.	0.68x	0.60x	0.74x	0.75x	0.82x	0.91x
22	Hawaiian Elec.	1.12x	1.10x	1.42x	1.30x	1.25x	1.25x
23	IDACORP, Inc.	1.25x	1.25x	1.16x	0.83x	0.68x	1.03x
24	NextEra Energy, Inc.	0.67x	0.58x	0.69x	0.54x	0.64x	0.65x
25	NorthWestern Corp	1.07x	0.98x	0.82x	0.66x	0.74x	1.23x
26	OGE Energy	1.26x	1.43x	1.13x	0.99x	1.04x	1.32x
27	Otter Tail Corp.	0.80x	0.45x	1.42x	1.45x	1.12x	1.08x
28	Pinnacle West Capital	0.98x	0.98x	0.85x	0.78x	0.83x	0.95x
29	PNM Resources	0.72x	0.59x	0.51x	0.63x	0.63x	0.89x
30	Portland General	0.99x	0.75x	0.97x	1.01x	1.06x	1.22x
31	PPL Corp.	0.92x	1.06x	1.12x	1.35x	1.06x	1.18x
32	Public Serv. Enterprise	1.07x	1.00x	1.05x	0.82x	0.89x	1.07x
33	Sempra Energy	0.66x	0.92x	0.78x	0.92x	1.17x	1.42x
34	Southern Co.	0.88x	1.01x	0.93x	0.97x	0.97x	1.10x
35	WEC Energy Group	0.91x	0.70x	0.75x	0.87x	0.92x	1.11x
36	Xcel Energy Inc.	0.69x	0.99x	0.86x	0.80x	0.92x	1.11x
37	Average	0.86x	0.86x	0.88x	0.89x	0.89x	1.03x
38	Median	0.80x	0.86x	0.86x	0.83x	0.89x	1.05x

Source:
[1] The Value Line Investment Survey, January 24, February 14, and March 13, 2020.
[2] The Value Line Investment Survey, March 12, April 23, and May 14, 2021.
[3] The Value Line Investment Survey, March 11, April 22, and May 13, 2022.
[4] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.
Notes:
Based on the projected Cash Flow per share and Capital Spending per share.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	Percent Dividends to Book Value[1]																	
		17-Year Average	2022 [2/a]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	ALLETE	5.95%	5.53%	5.56%	5.61%	5.44%	5.35%	5.29%	5.45%	5.45%	5.59%	5.86%	6.04%	6.18%	6.46%	6.67%	6.78%	6.80%	6.62%
2	Alliant Energy	6.33%	6.83%	6.73%	6.68%	6.68%	6.90%	7.32%	6.96%	6.70%	6.56%	6.36%	6.37%	6.26%	6.06%	5.98%	5.48%	5.23%	5.04%
3	Ameren Corp.	6.02%	5.87%	5.84%	5.67%	5.87%	5.92%	6.01%	5.86%	5.78%	5.82%	5.93%	5.87%	4.76%	4.79%	4.66%	7.74%	7.84%	7.97%
4	American Electric Power	6.28%	6.70%	6.74%	6.86%	6.82%	6.56%	6.43%	6.42%	5.90%	5.91%	5.91%	5.99%	6.10%	6.04%	5.97%	6.23%	6.28%	6.32%
5	Avangrid, Inc.	3.05%	3.52%	3.57%	3.58%	3.57%	3.57%	3.54%	3.53%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	4.99%	5.71%	5.61%	5.53%	5.37%	5.52%	5.41%	5.33%	5.38%	5.33%	5.65%	5.51%	5.42%	5.07%	4.23%	3.77%	3.44%	3.26%
7	Black Hills	5.33%	5.53%	5.32%	5.32%	5.34%	5.31%	5.67%	5.55%	5.66%	5.06%	5.17%	5.31%	5.30%	5.14%	5.10%	5.15%	5.34%	5.58%
8	CenterPoint Energy	9.85%	4.81%	4.82%	8.35%	6.59%	8.94%	12.39%	12.82%	12.30%	8.96%	8.23%	8.05%	7.97%	10.36%	11.28%	12.40%	12.12%	12.09%
9	CMS Energy Corp.	6.56%	7.93%	7.87%	8.57%	8.66%	8.52%	8.43%	8.14%	8.16%	8.10%	7.86%	7.94%	7.05%	5.90%	4.38%	3.31%	2.11%	0.00%
10	Consol. Edison	6.05%	5.37%	5.48%	5.56%	5.46%	5.49%	5.55%	5.72%	5.84%	5.87%	5.88%	5.97%	6.15%	6.27%	6.47%	6.60%	7.12%	7.40%
11	Dominion Resources	10.35%	7.76%	8.00%	11.72%	10.39%	11.31%	11.41%	12.04%	12.20%	12.16%	11.24%	11.50%	9.81%	8.86%	9.38%	9.14%	8.95%	7.46%
12	DTE Energy	6.11%	7.12%	8.64%	6.43%	6.34%	6.38%	6.34%	6.09%	5.81%	5.72%	5.79%	5.66%	5.60%	5.49%	5.59%	5.76%	5.91%	6.28%
13	Duke Energy	5.36%	6.34%	6.34%	6.39%	6.12%	6.04%	5.85%	5.73%	5.61%	5.45%	5.28%	5.22%	5.81%	5.72%	5.66%	5.45%	5.12%	0.00%
14	Edison Int'l	5.26%	7.36%	7.36%	6.96%	6.73%	7.56%	6.23%	5.39%	4.97%	4.41%	4.48%	4.54%	4.16%	3.90%	4.12%	4.19%	4.53%	4.65%
15	El Paso Electric	2.94%	N/A	N/A	5.13%	N/A	4.94%	4.67%	4.62%	4.63%	4.53%	4.46%	4.72%	3.47%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Entergy Corp.	6.72%	6.82%	6.72%	6.85%	7.13%	7.65%	7.90%	7.58%	6.44%	5.95%	6.15%	6.42%	6.53%	6.82%	6.59%	7.13%	6.34%	5.34%
17	Eversource Energy	4.95%	5.75%	5.69%	5.54%	5.59%	5.57%	5.43%	5.27%	5.12%	4.99%	4.82%	4.49%	4.86%	4.75%	4.66%	4.26%	4.16%	4.00%
18	Evergy, Inc.	5.37%	5.63%	5.41%	5.32%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	7.21%	5.60%	4.36%	4.62%	4.38%	4.34%	4.23%	4.51%	4.42%	4.72%	5.49%	8.38%	9.68%	10.25%	10.96%	12.21%	11.87%	11.02%
20	FirstEnergy Corp.	8.79%	9.78%	10.26%	11.70%	11.86%	13.82%	16.34%	10.21%	4.91%	4.88%	5.44%	7.03%	6.93%	7.85%	7.84%	8.10%	6.96%	6.54%
21	Fortis Inc.	5.36%	5.70%	5.59%	5.39%	5.08%	5.03%	5.19%	4.80%	5.00%	5.22%	5.58%	5.81%	5.70%	5.91%	5.60%	5.55%	4.90%	5.47%
22	Great Plains Energy	5.31%	N/A	N/A	N/A	N/A	N/A	4.78%	4.27%	4.21%	4.02%	3.91%	3.93%	3.84%	3.90%	4.03%	7.76%	9.13%	9.94%
23	Hawaiian Elec.	7.23%	6.36%	6.22%	6.17%	6.12%	6.24%	6.43%	6.51%	6.91%	7.10%	7.27%	7.62%	7.77%	7.91%	7.96%	8.08%	8.11%	9.22%
24	IDACORP, Inc.	4.59%	5.59%	5.45%	5.36%	5.24%	5.11%	5.02%	4.87%	4.70%	4.53%	4.26%	3.91%	3.62%	3.87%	4.11%	4.32%	4.48%	4.66%
25	NextEra Energy, Inc.	6.49%	8.65%	8.13%	7.51%	6.61%	6.22%	6.55%	6.69%	6.29%	6.49%	6.36%	6.34%	6.12%	5.82%	5.99%	6.30%	6.22%	6.21%
26	NorthWestern Corp	5.84%	5.66%	5.73%	5.84%	5.69%	5.70%	5.76%	5.77%	5.78%	5.08%	5.71%	5.90%	6.08%	6.01%	6.13%	6.21%	6.06%	6.00%
27	OGE Energy	6.78%	7.81%	8.04%	8.71%	7.28%	6.96%	6.59%	6.70%	6.30%	5.84%	5.56%	5.70%	5.81%	6.24%	6.79%	6.89%	7.47%	7.61%
28	Otter Tail Corp.	7.19%	5.99%	6.54%	7.05%	7.19%	7.29%	7.27%	7.34%	7.70%	7.86%	8.07%	8.25%	7.52%	6.77%	6.33%	6.22%	6.67%	6.90%
29	Pinnacle West Capital	6.18%	6.51%	6.43%	6.47%	6.29%	6.16%	6.03%	5.93%	5.91%	5.89%	5.84%	7.38%	6.00%	6.20%	6.42%	6.15%	5.98%	5.87%
30	PNM Resources	3.83%	5.24%	3.88%	5.23%	5.59%	5.12%	4.67%	4.18%	3.85%	3.37%	3.26%	2.89%	2.55%	2.84%	2.65%	3.20%	4.13%	3.89%
31	Portland General	4.79%	5.76%	5.61%	5.45%	5.24%	5.09%	4.94%	4.78%	4.64%	4.56%	4.70%	4.70%	4.78%	4.90%	4.93%	4.48%	4.42%	3.45%
32	PPL Corp.	8.96%	5.56%	8.89%	9.55%	9.74%	10.13%	10.18%	10.44%	10.19%	7.28%	7.43%	8.00%	7.48%	8.24%	9.47%	9.89%	8.20%	8.27%
33	Public Serv. Enterprise	6.89%	7.70%	7.12%	6.18%	6.28%	6.31%	6.27%	6.31%	6.03%	6.14%	6.28%	6.66%	6.75%	7.20%	7.66%	8.40%	8.15%	8.54%
34	SCANA Corp.	6.44%	N/A	N/A	N/A	N/A	N/A	6.67%	5.74%	5.72%	6.01%	6.14%	6.29%	6.48%	6.54%	6.80%	7.12%	6.94%	6.89%
35	Sempra Energy	5.32%	5.53%	5.56%	5.96%	6.39%	6.59%	6.53%	5.83%	5.89%	5.74%	5.60%	5.66%	4.68%	4.16%	4.27%	4.18%	3.89%	4.19%
36	Southern Co.	9.55%	9.98%	9.96%	9.59%	9.42%	9.95%	9.59%	8.89%	9.53%	9.48%	9.39%	9.22%	9.22%	9.38%	9.55%	9.74%	9.83%	10.07%
37	Vectren Corp.	7.71%	N/A	N/A	N/A	N/A	N/A	7.67%	7.60%	7.57%	7.51%	7.55%	7.57%	7.74%	7.78%	7.84%	7.85%	7.86%	7.97%
38	WEC Energy Group	6.20%	8.11%	7.83%	7.62%	7.36%	7.12%	6.94%	7.00%	6.35%	7.96%	7.71%	6.65%	6.05%	4.92%	4.42%	3.78%	3.77%	3.72%
39	Westar Energy	5.71%	N/A	N/A	N/A	N/A	N/A	5.82%	5.66%	5.57%	5.60%	5.70%	5.77%	5.81%	5.84%	5.83%	5.75%	5.64%	5.56%
40	Xcel Energy Inc.	6.15%	6.47%	6.38%	6.34%	6.42%	6.39%	6.38%	6.26%	6.13%	5.94%	5.78%	5.88%	5.91%	5.97%	6.09%	6.13%	6.19%	6.16%
41	Average	6.34%	6.47%	6.50%	6.69%	6.60%	6.72%	6.76%	6.48%	6.14%	6.10%	6.11%	6.29%	6.10%	6.06%	6.12%	6.36%	6.27%	6.06%
42	Median	6.06%	5.99%	6.34%	6.26%	6.32%	6.24%	6.27%	5.86%	5.81%	5.83%	5.82%	5.98%	6.06%	5.99%	5.99%	6.21%	6.21%	6.19%

Sources:

[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
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Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.

[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

[a] Based on the projected 2022 Dividend Declared per share and Book Value per share,
published in The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

		Dividends to Earnings Ratio[1]																	
Line	Company	17-Year Average	2022 [2/a]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	ALLETE	0.69	0.69	0.78	0.74	0.71	0.66	0.68	0.66	0.60	0.68	0.72	0.71	0.67	0.80	0.93	0.61	0.53	0.52
2	Alliant Energy	0.61	0.61	0.61	0.62	0.61	0.61	0.63	0.72	0.65	0.59	0.57	0.59	0.62	0.57	0.79	0.55	0.47	0.56
3	Ameren Corp.	0.67	0.58	0.57	0.57	0.57	0.56	0.64	0.64	0.70	0.67	0.76	0.66	0.63	0.56	0.55	0.88	0.85	0.95
4	American Electric Power	0.60	0.61	0.60	0.64	0.66	0.65	0.66	0.54	0.60	0.61	0.61	0.63	0.59	0.66	0.55	0.55	0.55	0.52
5	Avangrid, Inc.	0.90	0.75	0.89	0.94	0.78	0.91	1.03	0.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	0.67	0.90	0.80	0.85	0.52	0.72	0.73	0.64	0.70	0.69	0.66	0.88	0.64	0.61	0.51	0.51	0.83	0.39
7	Black Hills	1.11	0.59	0.61	0.58	0.58	0.56	0.54	0.64	0.57	0.54	0.58	0.75	1.45	0.87	0.61	7.78	0.51	0.60
8	CenterPoint Energy	0.75	0.51	0.70	0.70	0.58	1.51	0.86	1.03	0.92	0.67	0.67	0.60	0.62	0.73	0.75	0.56	0.58	0.45
9	CMS Energy Corp.	0.57	0.63	0.67	0.62	0.64	0.62	0.61	0.63	0.61	0.62	0.61	0.63	0.58	0.50	0.54	0.29	0.31	N/A
10	Consol. Edison	0.69	0.69	0.65	0.78	0.73	0.63	0.67	0.68	0.64	0.70	0.63	0.63	0.67	0.69	0.75	0.70	0.67	0.78
11	Dominion Resources	0.87	0.65	0.79	1.90	1.68	1.03	0.86	0.81	0.81	0.79	0.73	0.77	0.71	0.63	0.66	0.52	0.69	0.58
12	DTE Energy	0.67	0.76	0.95	0.58	0.61	0.58	0.59	0.63	0.64	0.53	0.69	0.62	0.63	0.58	0.65	0.78	0.80	0.85
13	Duke Energy	0.81	0.73	0.79	0.97	0.74	0.88	0.83	0.91	0.79	0.76	0.78	0.82	0.72	0.72	0.83	0.89	0.72	N/A
14	Edison Int'l	0.38	0.63	1.35	1.50	0.62	- 1.93	0.50	0.50	0.42	0.34	0.36	0.29	0.40	0.38	0.38	0.33	0.35	0.34
15	El Paso Electric	0.50	N/A	N/A	N/A	N/A	0.68	0.54	0.51	0.57	0.49	0.48	0.43	0.27	N/A	N/A	N/A	N/A	N/A
16	Entergy Corp.	0.54	0.62	0.56	0.54	0.58	0.61	0.67	0.50	0.57	0.58	0.67	0.55	0.44	0.49	0.48	0.48	0.46	0.40
17	Eversource Energy	0.60	0.62	0.68	0.64	0.62	0.62	0.61	0.60	0.61	0.61	0.59	0.70	0.50	0.49	0.50	0.44	0.49	0.88
18	Evergy, Inc.	0.57	0.66	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	0.60	0.53	0.88	0.59	0.48	0.67	0.47	0.70	0.49	0.59	0.63	1.09	0.56	0.54	0.49	0.50	0.45	0.47
20	FirstEnergy Corp.	0.80	0.65	0.58	0.84	0.83	1.37	0.53	0.69	0.72	1.69	0.56	1.03	1.17	0.68	0.66	0.50	0.49	0.48
21	Fortis Inc.	0.71	0.80	0.80	0.76	0.69	0.69	0.62	0.82	0.68	0.94	0.77	0.73	0.67	0.69	0.69	0.66	0.64	0.49
22	Great Plains Energy	- 0.82	N/A	N/A	N/A	N/A	N/A	-18.33	0.66	0.73	0.60	0.54	0.63	0.67	0.54	0.81	1.43	0.90	1.02
23	Hawaiian Elec.	0.84	0.65	0.60	0.73	0.64	0.67	0.76	0.54	0.83	0.76	0.77	0.74	0.86	1.02	1.36	1.16	1.12	0.93
24	IDACORP, Inc.	0.50	0.61	0.59	0.58	0.56	0.53	0.53	0.53	0.50	0.46	0.43	0.41	0.36	0.41	0.45	0.55	0.65	0.51
25	NextEra Energy, Inc.	0.56	0.60	0.85	0.67	0.64	0.66	0.60	0.60	0.51	0.52	0.55	0.53	0.45	0.42	0.47	0.44	0.50	0.47
26	NorthWestern Corp	0.68	0.76	0.69	0.78	0.65	0.65	0.63	0.59	0.66	0.54	0.62	0.65	0.57	0.64	0.66	0.75	0.89	0.95
27	OGE Energy	0.58	0.74	0.69	0.76	0.67	0.66	0.66	0.68	0.62	0.48	0.44	0.45	0.44	0.49	0.54	0.56	0.52	0.55
28	Otter Tail Corp.	1.08	0.28	0.37	0.63	0.65	0.65	0.69	0.78	0.79	0.78	0.87	1.13	2.64	3.13	1.68	1.09	0.66	0.68
29	Pinnacle West Capital	0.69	0.86	0.61	0.66	0.64	0.63	0.61	0.65	0.62	0.65	0.61	0.76	0.70	0.68	0.93	0.99	0.71	0.64
30	PNM Resources	0.89	0.55	0.43	0.58	0.52	0.65	0.52	0.53	0.49	0.52	0.48	0.44	0.46	0.57	0.86	5.50	1.20	0.50
31	Portland General	0.62	0.69	0.63	0.92	0.64	0.60	0.59	0.58	0.58	0.51	0.62	0.57	0.54	0.62	0.77	0.70	0.40	0.59
32	PPL Corp.	0.80	0.78	3.13	0.81	0.70	0.64	0.75	0.54	0.63	0.63	0.62	0.55	0.54	0.61	1.16	0.55	0.46	0.48
33	Public Serv. Enterprise	0.54	0.63	0.80	0.54	0.48	0.65	0.61	0.58	0.47	0.49	0.59	0.58	0.44	0.45	0.43	0.44	0.45	0.62
34	SCANA Corp.	0.61	N/A	N/A	N/A	N/A	N/A	0.58	0.55	0.57	0.55	0.60	0.63	0.65	0.64	0.66	0.62	0.64	0.65
35	Sempra Energy	0.55	0.55	1.10	0.64	0.65	0.65	0.71	0.71	0.54	0.57	0.60	0.55	0.43	0.39	0.33	0.31	0.29	0.28
36	Southern Co.	0.75	0.76	0.77	0.78	0.78	0.79	0.72	0.79	0.76	0.75	0.75	0.73	0.73	0.76	0.75	0.74	0.70	0.73
37	Vectren Corp.	0.75	N/A	N/A	N/A	N/A	N/A	0.66	0.64	0.64	0.72	0.86	0.72	0.80	0.84	0.75	0.80	0.69	0.85
38	WEC Energy Group	0.55	0.66	0.66	0.67	0.66	0.66	0.66	0.67	0.74	0.60	0.58	0.51	0.48	0.42	0.42	0.36	0.35	0.35
39	Westar Energy	0.68	N/A	N/A	N/A	N/A	N/A	0.70	0.63	0.69	0.60	0.60	0.61	0.72	0.69	0.94	0.89	0.59	0.52
40	Xcel Energy Inc.	0.62	0.62	0.62	0.62	0.61	0.62	0.63	0.62	0.61	0.59	0.58	0.58	0.60	0.64	0.65	0.64	0.67	0.65
41	Average	0.66	0.66	0.78	0.76	0.67	0.64	0.17	0.66	0.64	0.64	0.62	0.66	0.67	0.68	0.70	0.97	0.62	0.61
42	Median	0.63	0.65	0.68	0.67	0.64	0.65	0.63	0.64	0.63	0.60	0.61	0.63	0.62	0.62	0.66	0.61	0.59	0.56

Sources:

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Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.

[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Note:

[b] Based on the projected 2022 Dividends Declared per share and Earnings per share,
published in The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Electric Utilities
(Valuation Metrics)

Cash Flow to Capital Spending Ratio[1]

Line	Company	17-Year Average	2022 [2/a]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	ALLETE	0.80	2.16	0.55	0.55	0.63	1.22	1.61	1.32	1.16	0.45	0.67	0.49	0.77	0.63	0.39	0.46	0.65	1.23
2	Alliant Energy	0.80	0.93	0.95	N/A	N/A	N/A	0.49	N/A	0.81	0.91	1.01	0.57	0.91	0.67	0.39	0.57	1.04	1.27
3	Ameren Corp.	0.88	0.74	0.62	0.62	0.79	0.80	0.75	0.75	0.75	0.75	0.89	1.07	1.31	1.36	0.81	0.66	0.97	1.21
4	American Electric Power	0.87	0.75	0.81	0.81	0.75	0.68	0.67	0.85	0.85	0.87	0.91	1.07	1.19	1.24	1.02	0.70	0.77	0.75
5	Avangrid, Inc.	0.70	0.61	0.56	0.56	0.62	0.85	0.57	0.86	0.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	0.90	0.84	0.88	0.88	0.92	0.78	0.77	0.84	0.76	0.80	0.86	0.80	0.90	0.99	1.15	0.97	0.73	1.36
7	Black Hills	0.65	0.91	0.61	0.61	0.53	0.87	1.17	0.71	0.64	0.70	0.74	0.71	0.40	0.41	0.61	0.35	0.76	0.55
8	CenterPoint Energy	1.03	0.60	0.73	0.73	0.83	0.98	1.22	1.12	0.92	1.20	1.18	1.37	1.12	0.88	0.99	1.16	0.98	1.08
9	CMS Energy Corp.	0.87	0.78	0.78	0.78	0.79	0.77	0.89	0.81	0.81	0.74	0.82	0.82	1.05	1.13	0.97	1.11	0.55	1.07
10	Consol. Edison	0.82	0.82	0.83	0.83	0.87	0.82	0.76	0.65	0.76	0.88	0.86	1.01	0.98	0.90	0.75	0.70	0.81	0.74
11	Dominion Resources	0.78	0.75	0.73	0.73	0.96	1.04	0.81	0.65	0.64	0.63	0.77	0.73	0.79	0.87	0.75	0.83	0.74	0.85
12	DTE Energy	1.00	0.72	0.74	0.74	0.83	0.84	0.94	0.93	0.84	1.02	0.96	0.93	1.09	1.51	1.50	0.98	1.07	1.03
13	Duke Energy	0.89	0.83	0.85	0.85	0.80	0.81	0.87	0.82	0.96	1.20	1.09	0.87	0.89	0.78	0.77	0.71	1.09	0.97
14	Edison Int'l	0.74	0.83	0.55	0.55	0.68	0.34	0.94	0.91	0.80	0.83	0.80	0.76	0.61	0.60	0.79	0.93	0.88	0.93
15	El Paso Electric	0.87	N/A	0.83	N/A	N/A	0.86	1.04	0.85	0.67	0.69	0.79	0.85	1.03	0.98	0.68	0.78	0.84	1.26
16	Entergy Corp.	0.98	0.98	0.74	0.74	0.79	0.73	0.76	1.08	1.05	1.19	1.03	0.88	1.15	1.24	1.02	0.93	1.14	1.13
17	Eversource Energy	0.85	0.72	0.80	0.80	0.75	0.83	0.79	0.87	0.91	0.90	1.13	0.86	0.80	1.05	0.96	0.77	0.68	0.67
18	Evergy, Inc.	1.03	0.94	1.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	1.24	0.96	1.09	1.09	1.20	1.05	1.06	0.76	0.82	0.93	1.07	0.98	1.19	1.66	1.66	1.61	1.84	1.86
20	FirstEnergy Corp.	1.02	0.86	0.83	0.83	0.80	0.76	1.03	0.94	0.93	0.54	0.91	0.85	1.05	1.32	1.22	0.95	1.56	1.75
21	Fortis Inc.	0.68	0.75	0.65	0.65	0.68	0.72	0.76	0.76	0.65	0.60	0.77	0.72	0.66	0.68	0.63	0.66	0.57	0.63
22	Great Plains Energy	0.79	N/A	N/A	N/A	N/A	N/A	0.78	1.17	0.90	0.79	0.91	0.86	1.03	0.86	0.50	0.35	0.69	0.64
23	Hawaiian Elec.	1.09	1.46	1.27	1.27	1.08	0.85	0.81	1.37	0.98	1.03	0.92	0.99	1.30	1.50	0.79	0.87	1.15	1.23
24	IDACORP, Inc.	1.12	0.92	1.33	1.33	1.46	1.42	1.33	1.16	1.15	1.21	1.34	1.24	0.86	0.78	0.96	0.82	0.64	0.89
25	NextEra Energy, Inc.	0.62	0.63	0.58	0.58	0.67	0.56	0.53	0.63	0.71	0.77	0.68	0.39	0.58	0.69	0.60	0.63	0.56	0.73
26	NorthWestern Corp	1.04	0.66	0.84	0.84	1.13	1.23	1.21	1.13	1.01	0.93	0.92	0.88	1.04	0.76	0.88	1.27	1.23	1.29
27	OGE Energy	0.91	0.99	1.24	1.24	1.27	1.30	0.81	1.00	1.18	1.19	0.69	0.63	0.51	0.69	0.61	0.60	0.79	0.84
28	Otter Tail Corp.	0.84	1.78	0.48	0.48	0.80	1.49	1.10	0.84	0.74	0.70	0.67	0.85	1.16	1.09	0.56	0.37	0.65	1.44
29	Pinnacle West Capital	0.95	0.79	0.91	0.91	1.03	1.06	0.76	0.81	0.92	0.97	0.87	0.96	0.91	0.97	1.06	0.86	0.99	1.28
30	PNM Resources	0.71	0.63	0.72	0.72	0.78	0.82	0.84	0.57	0.57	0.63	0.80	0.87	0.77	0.82	0.70	0.44	0.43	0.89
31	Portland General	0.84	0.97	0.78	0.78	1.03	1.00	1.07	0.88	0.80	0.47	0.59	1.28	1.25	0.81	0.44	0.77	0.72	0.78
32	PPL Corp.	0.96	1.24	0.90	0.90	0.98	0.93	0.82	1.00	0.72	0.75	0.69	0.91	1.07	1.11	1.07	1.25	1.13	1.18
33	Public Serv. Enterprise	1.12	1.03	1.13	1.13	1.08	0.70	0.64	0.61	0.80	1.04	0.93	0.96	1.30	1.23	1.41	1.34	1.64	1.94
34	SCANA Corp.	0.86	N/A	N/A	N/A	N/A	N/A	0.86	0.66	0.83	0.90	0.83	0.77	0.88	0.86	0.76	0.76	0.92	1.26
35	Sempra Energy	0.81	0.92	0.77	0.77	0.88	0.80	0.67	0.56	0.81	0.74	0.84	0.73	0.72	0.90	1.02	0.87	0.90	0.93
36	Southern Co.	0.89	0.97	0.99	0.99	0.88	0.83	0.90	0.77	0.88	0.80	0.86	0.93	0.94	0.93	0.78	0.87	0.91	1.00
37	Vectren Corp.	1.00	N/A	N/A	N/A	N/A	N/A	0.82	0.87	0.95	0.98	1.05	1.13	1.20	1.31	0.83	0.82	0.98	1.00
38	WEC Energy Group	0.98	0.87	0.97	0.97	0.91	0.90	0.92	1.20	0.97	1.37	1.42	1.30	1.02	0.97	0.89	0.61	0.56	0.69
39	Westar Energy	0.72	N/A	N/A	N/A	N/A	N/A	0.91	0.63	0.86	0.70	0.72	0.67	0.71	0.88	0.68	0.36	0.48	1.00
40	Xcel Energy Inc.	0.75	0.80	0.66	0.66	0.78	0.77	0.84	0.79	0.63	0.68	0.60	0.76	0.83	0.76	0.89	0.75	0.71	0.90
41	Average	0.89	0.92	0.83	0.82	0.88	0.89	0.89	0.87	0.85	0.86	0.88	0.88	0.95	0.97	0.86	0.80	0.89	1.06
42	Median	0.84	0.84	0.81	0.78	0.83	0.84	0.84	0.84	0.83	0.82	0.86	0.87	0.96	0.90	0.80	0.77	0.82	1.00

Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, March 12, April 23, and May 14, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, March 11, April 22, and May 13, 2022.
[2] The Value Line Investment Survey, July 22, August 12, and September 9, 2022.
Notes:
[c] Based on the projected Cash Flow per share and Capital Spending per share
published in The Value Line Investment Survey, July 22, August 12, and September 9, 2022.

Entergy Texas, Inc.

Natural Gas Utilities
(Valuation Metrics)

Price to Earnings (P/E) Ratio [1]

Line	Company	17-Year Average	2022 [2]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	Atmos Energy	17.37	20.20	19.30	22.30	23.22	21.75	22.04	20.80	17.50	16.09	15.87	15.93	14.36	13.21	12.54	13.59	15.87	13.52
2	Chesapeake Utilities	18.86	26.60	26.30	21.57	24.74	22.94	27.84	21.77	19.15	17.70	15.62	14.81	14.16	12.21	14.20	14.15	16.72	17.85
3	New Jersey Resources	17.29	18.70	17.50	17.70	24.33	15.64	22.38	21.25	16.61	11.73	15.98	16.83	16.76	14.98	14.93	12.27	21.61	16.13
4	NiSource Inc.	19.86	20.90	19.50	18.67	21.32	19.34	NMF	23.18	37.34	22.74	18.89	17.87	19.36	15.33	14.34	12.07	18.82	19.16
5	Northwest Nat. Gas	20.91	19.30	17.60	24.96	30.85	26.63	NMF	26.92	23.69	20.69	19.38	21.08	19.02	16.97	15.17	18.08	16.74	15.85
6	ONE Gas Inc.	21.56	20.50	18.60	21.71	25.27	23.06	23.47	22.74	19.79	17.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	18.55	18.80	14.30	14.89	28.28	22.64	27.92	21.71	17.95	18.03	18.90	16.94	18.48	16.81	14.96	15.90	17.18	11.86
8	Southwest Gas	17.57	18.40	15.30	16.80	21.30	20.61	22.21	21.64	19.35	17.86	15.76	15.00	15.69	13.97	12.20	20.27	17.26	15.94
9	Spire Inc.	18.96	17.60	19.00	51.12	22.79	16.74	19.82	19.61	16.49	19.80	21.25	14.46	13.05	13.74	13.39	14.31	14.19	13.60
10	UGI Corp.	15.75	12.20	12.90	13.80	23.40	17.77	20.84	19.33	17.71	15.81	15.44	16.38	15.03	10.86	10.30	13.30	15.14	13.97
11	WGL Holdings Inc.	16.71	N/A	N/A	N/A	N/A	N/A	25.40	20.05	16.99	15.15	18.25	15.27	16.97	15.11	12.58	13.66	15.60	15.46
12	Average	18.42	19.32	18.03	22.35	24.55	20.71	23.55	21.73	20.23	17.58	17.53	16.46	16.29	14.32	13.46	14.76	16.91	15.33
13	Median	17.83	19.05	18.10	20.12	23.87	21.18	22.38	21.64	17.95	17.83	17.11	16.15	16.22	14.48	13.80	13.91	16.73	15.66

Market Price to Cash Flow (MP/CF) Ratio [1]

Line	Company	17-Year Average	2022 [2]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
14	Atmos Energy	9.04	12.11	10.99	13.11	13.35	12.02	11.99	11.36	9.30	8.79	7.72	7.02	6.87	6.15	5.76	6.48	7.44	6.36
15	Chesapeake Utilities	10.17	13.88	14.20	12.31	14.17	12.24	13.78	12.06	10.16	9.25	8.12	7.46	7.35	6.36	9.48	7.88	8.58	9.40
16	New Jersey Resources	12.00	11.53	11.56	11.10	15.98	11.44	14.45	13.94	11.71	8.95	11.29	12.29	12.71	11.32	11.34	9.15	13.76	11.01
17	NiSource Inc.	7.87	8.55	7.89	7.83	8.81	8.91	12.11	8.56	10.38	10.56	8.71	7.81	6.81	5.09	4.06	4.87	6.69	6.87
18	Northwest Nat. Gas	12.66	7.66	8.57	10.10	13.13	11.75	59.72	11.57	9.46	8.84	8.61	9.48	9.08	8.94	8.26	8.75	8.54	7.83
19	ONE Gas Inc.	10.64	10.29	9.32	10.85	12.75	11.85	11.89	11.10	9.19	8.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	South Jersey Inds.	10.57	10.07	9.26	7.54	12.38	10.72	12.33	10.88	10.70	10.57	11.57	10.95	11.98	10.78	9.57	10.38	11.23	8.32
21	Southwest Gas	6.44	7.16	6.87	7.05	8.92	9.32	9.10	7.41	6.56	6.35	5.94	5.55	5.60	4.91	3.84	4.89	5.42	5.28
22	Spire Inc.	9.80	8.40	7.55	14.01	11.27	9.60	10.39	10.32	8.47	12.03	13.76	8.80	8.08	8.12	8.58	8.95	8.46	8.46
23	UGI Corp.	8.04	7.49	9.56	7.39	12.95	9.01	10.09	9.02	8.47	7.49	6.55	6.30	7.51	6.02	5.74	7.11	7.92	7.48
24	WGL Holdings Inc.	9.17	N/A	N/A	N/A	N/A	N/A	12.92	11.36	9.59	8.46	9.83	9.03	9.52	8.34	7.17	7.68	8.39	7.81
25	Average	9.60	9.71	9.58	10.13	12.37	10.69	16.25	10.69	9.45	9.04	9.21	8.47	8.55	7.60	7.38	7.62	8.64	7.88
26	Median	8.84	9.31	9.29	10.47	12.85	11.08	12.11	11.10	9.46	8.84	8.66	8.31	7.80	7.24	7.71	7.78	8.42	7.82

Market Price to Book Value (MP/BV) Ratio [1]

Line	Company	17-Year Average	2022 [2]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
27	Atmos Energy	1.58	1.69	1.59	1.95	2.10	2.03	2.16	2.11	1.72	1.55	1.39	1.28	1.30	1.18	1.05	1.20	1.40	1.34
28	Chesapeake Utilities	2.03	2.80	2.77	2.27	2.69	2.50	2.51	2.28	2.19	2.12	1.83	1.66	1.61	1.40	1.37	1.64	1.84	1.85
29	New Jersey Resources	2.26	2.27	2.26	1.90	2.75	2.63	2.70	2.52	2.28	2.13	2.05	2.33	2.31	2.09	2.16	1.92	2.17	2.01
30	NiSource Inc.	1.53	2.15	1.86	1.95	2.09	1.92	1.96	1.84	1.95	1.94	1.58	1.37	1.15	0.92	0.69	0.94	1.16	1.19
31	Northwest Nat. Gas	1.87	1.59	1.45	1.98	2.38	2.35	2.41	1.92	1.63	1.59	1.56	1.72	1.70	1.78	1.73	1.96	2.05	1.69
32	ONE Gas Inc.	1.69	1.67	1.57	1.90	2.20	1.93	1.89	1.67	1.26	1.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	South Jersey Inds.	2.05	1.40	1.54	1.52	2.06	2.11	2.29	1.79	1.77	2.07	2.27	2.21	2.59	2.38	1.95	2.08	2.21	1.93
34	Southwest Gas	1.55	1.49	1.32	1.49	1.84	1.79	2.13	1.96	1.68	1.68	1.61	1.51	1.43	1.24	0.97	1.20	1.46	1.46
35	Spire Inc.	1.57	1.39	1.47	1.67	1.78	1.63	1.65	1.64	1.44	1.33	1.34	1.51	1.46	1.39	1.68	1.71	1.66	1.71
36	UGI Corp.	2.03	1.44	1.64	1.87	2.92	2.30	2.62	2.41	2.29	1.97	1.69	1.45	1.75	1.55	1.66	2.01	2.16	2.21
37	WGL Holdings Inc.	1.81	N/A	N/A	N/A	N/A	N/A	2.69	2.45	2.15	1.69	1.71	1.66	1.63	1.50	1.45	1.59	1.64	1.59
38	Average	1.82	1.79	1.75	1.85	2.28	2.12	2.27	2.05	1.85	1.74	1.70	1.67	1.69	1.54	1.47	1.62	1.78	1.70
39	Median	1.69	1.63	1.58	1.90	2.15	2.07	2.29	1.96	1.77	1.69	1.65	1.58	1.62	1.45	1.56	1.67	1.75	1.70

Sources:
[1] Data for years 2019 and prior were retreived from the Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.
Data for the year 2020 was retrieved from Value Line Investment Surveys, February 26, 2021.
Data for the year 2021 was retrieved from Value Line Investment Surveys, February 25, 2022.
[2] The Value Line Investment Survey, August 26, 2022.
Notes:
[a] Based on the average of the high and low price for year and the projected Cash Flow per share, published in The Value Line Investment Survey.
[b] Based on the average of the high and low price for the year and the projected Book Value per share, published in The Value Line Investment Survey.