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SOAH DOCKET NO. 473-21-2606
PUC DOCKET NO. 52195

APPLICATION OF EL PASO)	BEFORE THE STATE OFFICE
ELECTRIC COMPANY TO)	OF
CHANGE RATES)	ADMINISTRATIVE HEARINGS

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

Texas Industrial Energy Consumers

REDACTED

October 22, 2021



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PUC DOCKET NO. 52195**

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APPLICATION OF EL PASO
ELECTRIC COMPANY TO
CHANGE RATES

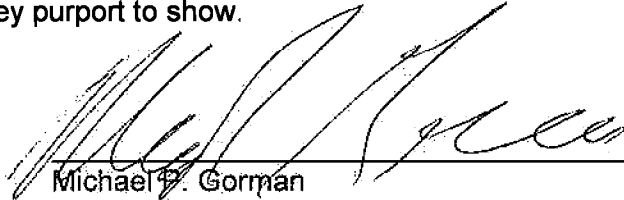
BEFORE THE STATE OFFICE
OF
ADMINISTRATIVE HEARINGS

Affidavit of Michael P. Gorman

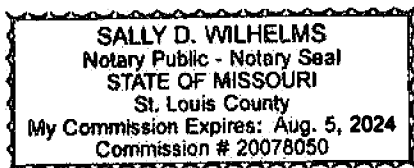
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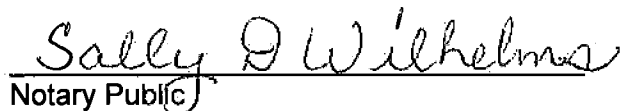
Michael P. Gorman, being first duly sworn, on his oath states:

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. 473-21-2606, Public Utility Commission of Texas Docket No. 52195.
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 22nd day of October, 2021.




Notary Public

SOAH DOCKET NO. 473-21-2606
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APPLICATION OF EL PASO
ELECTRIC COMPANY TO
CHANGE RATES

)
) BEFORE THE STATE OFFICE
) OF
) ADMINISTRATIVE HEARINGS

Direct Testimony of Michael P. Gorman

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

4 Q WHAT IS YOUR OCCUPATION?

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

7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

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

9 Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

10 A My testimony will address El Paso Electric Company's ("EPE" or "Company") overall
11 rate of return including return on equity, embedded debt cost, and ratemaking capital
12 structure.

1 **Q DOES THE FACT THAT YOU DID NOT ADDRESS EVERY ISSUE RAISED IN EPE'S**
2 **TESTIMONY MEAN THAT YOU AGREE WITH EPE'S TESTIMONY ON THOSE**
3 **ISSUES?**

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

7 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS ON**
8 **RETURN ON EQUITY.**

9 A I recommend the Public Utility Commission of Texas ("Commission" or "PUCT") award
10 a return on common equity in the range of 9.00% to 9.40%, with a midpoint of 9.20%.
11 This return on equity reflects EPE's current market cost of equity. I recommend the
12 Commission approve a return on equity that reflects fair compensation for EPE's level
13 of investment risk, and impose tariff rate charges on customers that are no more
14 expensive than necessary to fairly compensate the Company and maintain its financial
15 integrity and credit standing.

16 **Q ARE YOU RECOMMENDING AN OVERALL RATE OF RETURN FOR EPE IN THIS**
17 **CASE?**

18 A Yes. As shown on my Exhibit MPG-1, my recommended overall rate of return is 7.42%,
19 which reflects my recommended return on equity of 9.20% and the Company's
20 proposed capital structure.

21 **Q PLEASE DESCRIBE HOW YOUR TESTIMONY IS ORGANIZED.**

22 A First, I provide observable evidence on current market costs and regulatory support for
23 financial integrity, credit standing, and access to capital. Second, I estimate EPE's

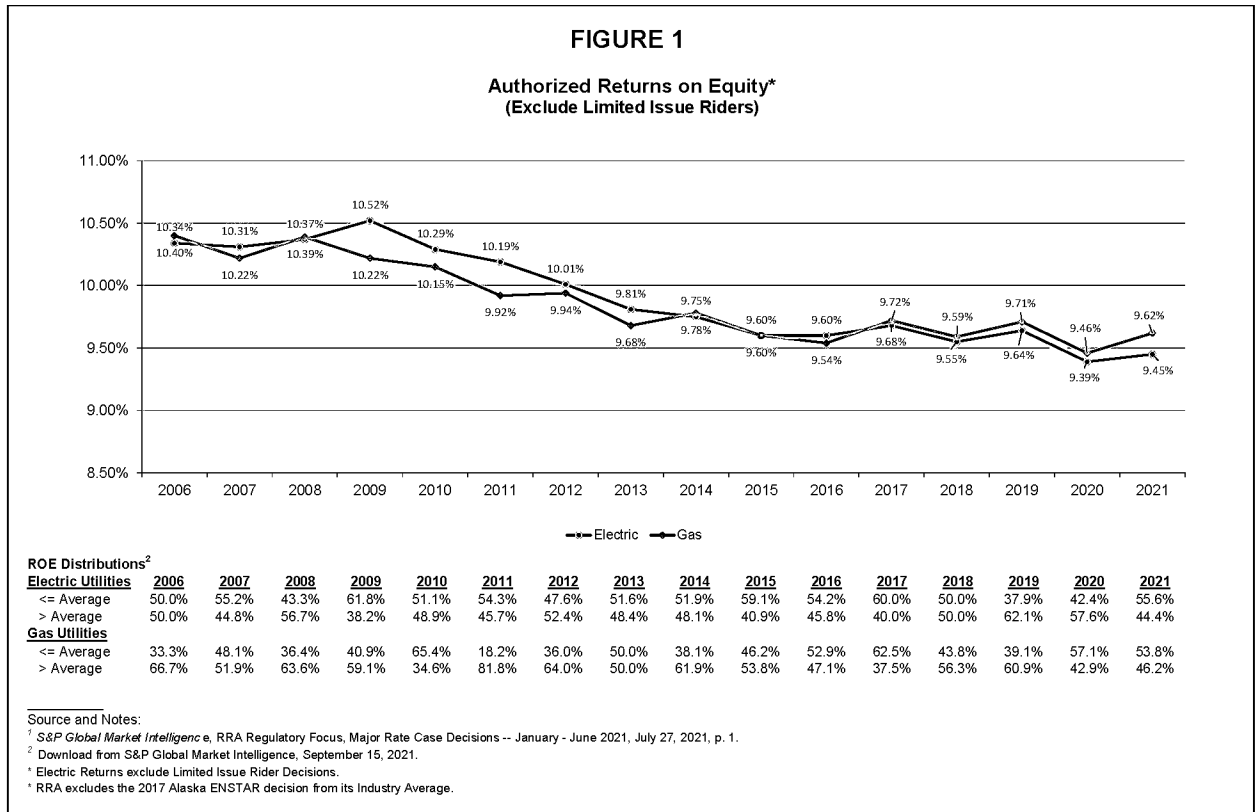
1 current market cost of equity using market-based cost of capital models to estimate the
2 current market-required return on equity that investors demand to assume the
3 investment risk similar to EPE. Third, I rely on my recommended rate of return and the
4 Company's test year filing to develop credit metrics, which demonstrate that my
5 recommended rate of return for EPE will support its investment grade bond rating, and
6 support its access to capital. Finally, I respond to EPE witness Ms. Jennifer E. Nelson's
7 recommended return on equity. Ms. Nelson recommends a return on equity in the
8 range of 9.75% to 10.75%, and point estimate of 10.30%. I comment on her analysis
9 and show that her recommended return on equity substantially exceeds the current
10 market cost of capital for companies with investment risk similar to that of EPE. Ms.
11 Nelson's recommended return on equity unnecessarily inflates EPE's claimed revenue
12 deficiency, and would increase rates beyond a just and reasonable level.

13 **I. CAPITAL MARKET OBSERVABLE EVIDENCE**

14 **I.A Utility Industry Authorized Returns on Equity,**
15 **Access to Capital, and Credit Strength**

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

18 **A** As illustrated in Figure 1 below, national average authorized returns on equity for both
19 electric and gas utilities have ranged between 9.45% to 9.75% for the last eight years
20 (2014-2021 to date).



I.B. Access to Capital

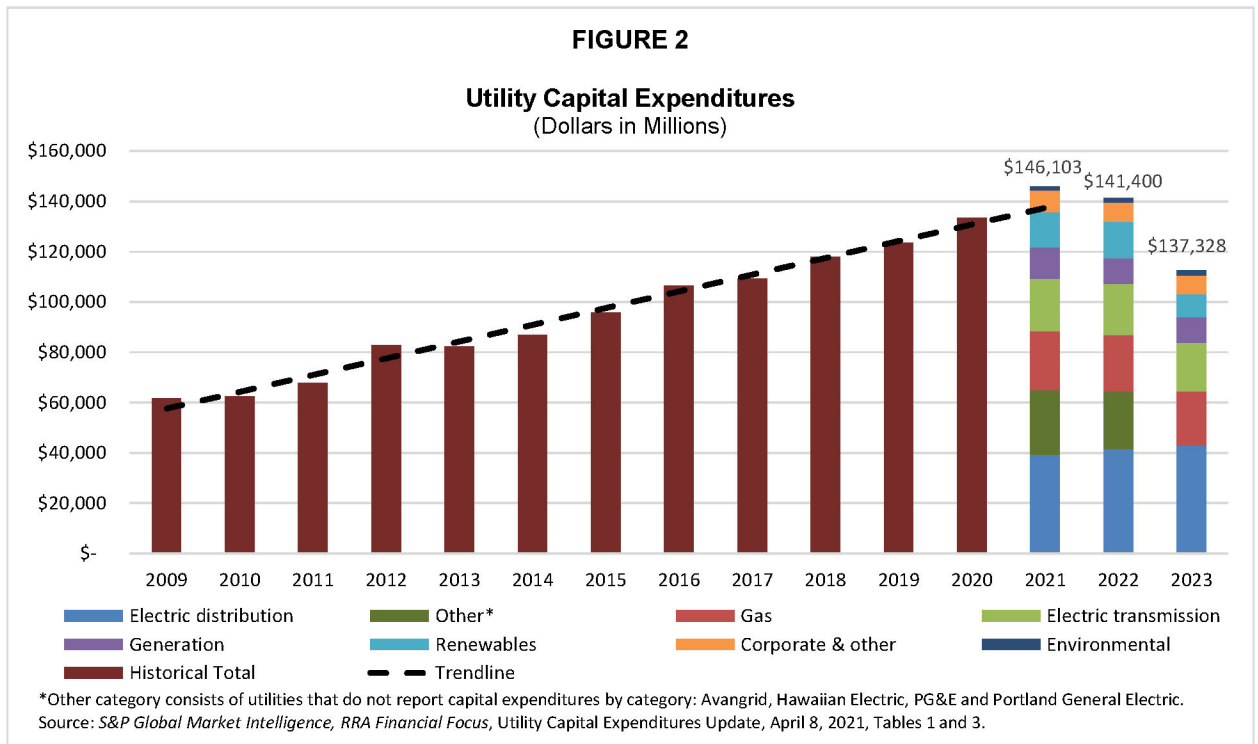
Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO SUPPORT CAPITAL EXPENDITURE PROGRAMS?

A Yes. In its April 8, 2021 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 2020 capital expenditures for the 47 energy utilities in the Regulatory Research Associates, a group within S&P Global Market Intelligence, universe currently stands at roughly \$141.3 billion, well above 2019's \$120.7 billion in capital investment.
- 2020 energy utility capital expenditures marked a record high and were more than 7.75% above the \$120.7 billion that the energy utility industry invested in 2019, despite that the coronavirus pandemic interrupted certain supply chains for a period of months in some instances.

- 2021 appears on track to be another record year for energy infrastructure investments. Assuming current projections hold, investment across the RRA covered energy utility industry may rise by 9% or more this year.¹

As shown in Figure 2 below, capital expenditures for electric and natural gas utilities have increased considerably over the period 2020 into 2021, and the forecasted capital expenditures remain elevated through 2022, albeit falling below current levels in 2023.



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 these elevated capital investments. While

¹ S&P Global Market Intelligence, RRA Financial Focus: "Utility Capital Expenditures Update," April 8, 2021, at 1-2.

1 capital markets embrace these profit-driven capital investments, regulatory
2 commissions also must be careful to maintain reasonable prices and tariff terms and
3 conditions to protect customers' need for reliable utility service but at competitive tariff
4 prices.

5 **I.C. Utility Access to Equity Capital**

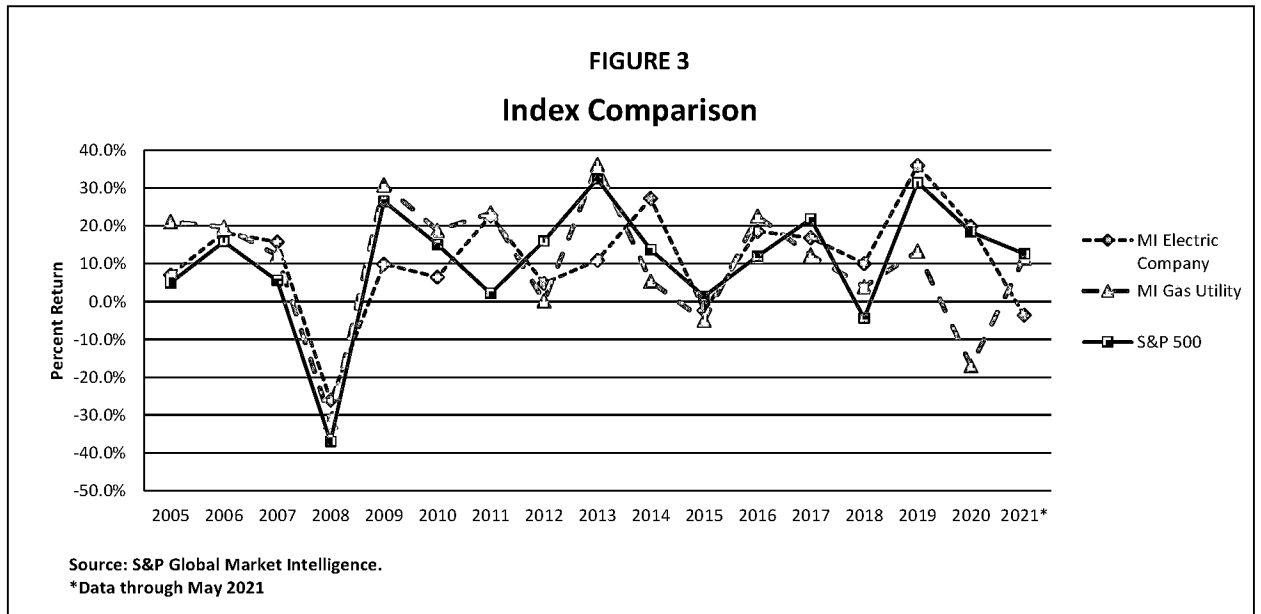
6 **Q IS THERE EVIDENCE OF ROBUST VALUATIONS OF REGULATED UTILITY**
7 **EQUITY SECURITIES?**

8 A Yes. Robust valuations are an indication that utilities can sell securities at high prices,
9 which is a strong indication that they can access equity capital under reasonable terms
10 and conditions, and at relatively low cost. As shown on my Exhibit MPG-2, utility
11 valuation metrics show robust valuation of utility electric securities more recently
12 compared to the historical period extending back to 2002. Specifically, page 1 of this
13 exhibit shows *The Value Line Investment Survey* ("Value Line") electric utility industry
14 price-to-earnings ratio of 20.19x, compared to a 20-year average price-to-earnings ratio
15 of around 17.15x. The market price-to-cash flow currently is 9.79x, compared to the
16 20-year average of 7.56x (page 2). Finally, the current market-to-book ratio for the
17 utility industry is 2.12x, compared to the 17-year average of 1.74x (page 3). Utility
18 valuation metrics exhibit strong valuations in the marketplace for utility securities, which
19 is a clear indication that utilities have access to external capital markets under favorable
20 prices.

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

23 A As shown in Figure 3 below, S&P Global Market Intelligence ("MI") has recorded utility
24 stock price performance compared to the market. The industry's stock performance

data from 2005 through 2021 shows that the MI Electric Company and MI Gas Utility Indexes have followed the market through downturns and recoveries. However, utility investments have been less volatile during extreme market downturns. This more stable price performance for utilities supports my conclusion that market participants regard utility stock sectors as a moderate- to low-risk investment option.



While utility stocks have not exhibited the same volatility as the S&P 500, stock prices have remained strong, relative to the market in general, and support the utilities' access to equity capital markets under reasonable terms and prices.

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

A Observable market evidence demonstrates that capital market costs are near historically low levels. While authorized returns on equity have fallen below the mid-9% range, utilities continue to have access to large amounts of external capital, even as they are funding large capital expenditure programs. Furthermore, utilities' investment-grade credit ratings are stable and have improved, due in part to supportive

1 regulatory treatment. The Commission should carefully weigh all this important
2 observable market evidence in assessing a fair return on equity for EPE.

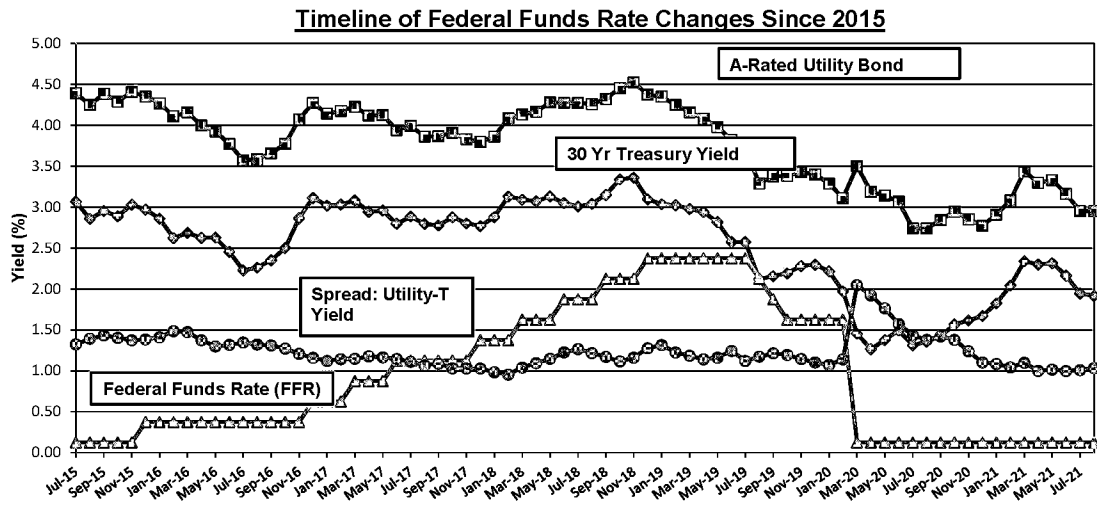
3 **I.D. Federal Reserve's Impact on Cost of Capital**

4 **Q ARE THE FEDERAL RESERVE'S MONETARY OPEN MARKET COMMITTEE**
5 **ACTIONS KNOWN TO THE MARKET PARTICIPANTS, AND IS IT REASONABLE**
6 **TO BELIEVE THEY ARE REFLECTED IN THE MARKET'S VALUATION OF BOTH**
7 **DEBT AND EQUITY SECURITIES?**

8 **A** Yes. The Federal Reserve has been quite public about its efforts to support the
9 economy to achieve maximum employment, and to manage long-term inflation to
10 around a 2% level. The Federal Reserve has implemented procedures to support the
11 economy's efforts to achieve these policy objectives. Specifically, in March 2020 the
12 Federal Reserve lowered the Federal Overnight Rate for securities, and has engaged
13 once again in a Quantitative Easing program where the Federal Reserve is buying on
14 a monthly basis Treasury and mortgage-backed securities in order to moderate the
15 demand in the marketplaces and support the economy. All of these actions are known
16 by market participants because the Federal Reserve is transparent in its monetary
17 policies.

18 An assessment of the market's reaction to the Federal Reserve's actions on the
19 Federal Funds Rate is shown below in Figure 4.

FIGURE 4

**Fed FFR Actions:**

1	December 2015	0.25	→	0.50	8	September 2018	2.00	→	2.25
2	December 2016	0.50	→	0.75	9	December 2018	2.25	→	2.50
3	March 2017	0.75	→	1.00	10	August 2019	2.00	→	2.25
4	June 2017	1.00	→	1.25	11	September 2019	1.75	→	2.00
5	December 2017	1.25	→	1.50	12	October 2019	1.50	→	1.75
6	March 2018	1.50	→	1.75	13	March 2020	1.00	→	1.25
7	June 2018	1.75	→	2.00	14	March 2020	0.00	→	0.25

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.moody.com/>

As shown in Figure 4 above, while the Federal Reserve has reduced short-term interest rates currently, as it did back in the period prior to 2015, the market's valuation of long-term securities remains relatively stable, and at very low costs. The Federal Reserve's interaction in short-term securities is specifically stated to manage inflation and support employment in the economy. The Federal Reserve's interaction in these marketplaces is not to manipulate utility valuation or security valuations, or drive capital market costs in one direction or the other. Rather, it is strictly for the purpose of supporting the U.S. economy.

1 Q HAS THE FEDERAL RESERVE MADE RECENT COMMENTS CONCERNING
2 MONETARY POLICY AND THE POTENTIAL IMPACT ON INTEREST RATES?

3 A Yes. Again, the Federal Reserve states the Federal Open Market Committee “seeks
4 to achieve maximum employment and inflation at the rate of 2 percent over the longer
5 run.”² The Federal Reserve has recently stated that containing the target Federal
6 Funds Rate at the 0 to 1/4% rate will be maintained until labor market conditions have
7 reached levels consistent with the Committee’s assessments of maximum
8 employment, and inflation has risen to 2% and is on track to moderately exceed the
9 2% longer outlook over time.³

10 In a speech by Federal Reserve Member Christopher Waller, he noted
11 short-term inflation has picked up recently above the 2% long-term objective, and he
12 states the concern of this short-term inflation outlook is tempered by a number of factors
13 that suggest these elevated readings on inflation are likely to prove temporary.⁴

14 Also, in Federal Reserve Chairman Jerome Powell’s recent testimony, he
15 indicated that the Federal Reserve may begin reducing its purchases of Treasury and
16 mortgage-backed securities toward the end of this year, 2021. He stated that the
17 strength of the employment levels and moderation of long-term inflation outlooks may
18 support this action.⁵

² Federal Reserve press release, July 28, 2021.

³ *Id.*

⁴ The Economic Outlook and a Cautionary Tale on “Idiosyncratic” Price Changes and Inflation, Remarks by Christopher J. Waller, Member, Board of Governors of the Federal Reserve System at the Stanford Institute for Economic Policy Research Associates Meeting, Stanford, California, October 19, 2021.

⁵ Federal Reserve press release, July 28, 2021

1 **Q WHAT DO INDEPENDENT ECONOMISTS' OUTLOOKS FOR FUTURE INTEREST**
2 **RATES INDICATE?**

3 **A Independent economists expect the current low capital costs to prevail over at least the**
4 **intermediate term. This is illustrated in projections for both short- and long-term**
5 **changes in interest rates. Further, there is a clear trend in forecasted changes in**
6 **interest rates over time, indicating that capital market participants are becoming more**
7 **comfortable with today's low-cost capital market environment and expect it to prevail**
8 **over at least the intermediate future.**

9 For example, short-term projections suggest that the market expects capital
10 market costs to remain relatively low. Table 1 below shows capital cost projections
11 over the next two years, and demonstrates that projected Treasury bond yields are not
12 expected to increase significantly over the this projection period.

TABLE 1

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

<u>Publication Date</u>	<u>4Q 2020</u>	<u>1Q 2021</u>	<u>2Q 2021</u>	<u>3Q 2021</u>	<u>4Q 2021</u>	<u>1Q 2022</u>	<u>2Q 2022</u>	<u>3Q 2022</u>	<u>4Q 2022</u>
<u>Federal Funds Rate</u>									
Mar-21	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Apr-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
May-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Jun-21		0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Jul-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
Aug-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sep-21			0.1	0.1	0.1	0.1	0.1	0.1	0.1
<u>T-Bond, 30 yr.</u>									
Mar-21	1.6	2.0	2.1	2.2	2.3	2.4	2.4		
Apr-21		2.1	2.4	2.5	2.5	2.6	2.7	2.7	
May-21		2.1	2.4	2.5	2.6	2.7	2.7	2.8	
Jun-21		2.1	2.4	2.5	2.6	2.6	2.7	2.8	
Jul-21			2.3	2.4	2.5	2.6	2.6	2.7	2.7
Aug-21			2.3	2.1	2.3	2.4	2.5	2.6	2.6
Sep-21			2.3	2.1	2.2	2.3	2.5	2.5	2.6
<u>GDP Price Index</u>									
Mar-21	2.1	2.2	1.8	1.9	1.9	1.9	2.0		
Apr-21		2.2	2.1	2.1	2.0	1.9	2.1	2.2	
May-21		4.1	2.4	2.2	2.1	2.2	2.2	2.2	
Jun-21		4.3	3.3	2.5	2.1	2.2	2.2	2.3	
Jul-21			4.6	3.0	2.3	2.3	2.3	2.3	2.3
Aug-21			6.0	3.7	2.5	2.4	2.3	2.3	2.3
Sep-21			6.1	4.2	2.8	2.4	2.3	2.4	2.3

Source and Note:

Blue Chip Financial Forecasts, January 2021 through September 2021.

Actual Yields in Bold

- 1 Further, the outlook for long-term interest rates in the intermediate to longer
- 2 term is also impacted by the current Federal Reserve actions and the expectation that
- 3 eventually the Federal Reserve's monetary actions will return to more normal levels.
- 4 Long-term interest rate projections are illustrated in Table 2 below.

TABLE 2

30-Year Treasury Bond Yield Actual and Projection

<u>Description</u>	<u>Actual</u>	<u>2-Year Projected*</u>	<u>5- to 10-Year Projected</u>
<u>2015</u>			
Q1	2.55%	3.80%	
Q2	2.89%	3.70%	4.8% - 5.0%
Q3	2.84%	3.90%	
Q4	2.96%	3.80%	4.5% - 4.8%
<u>2016</u>			
Q1	2.72%	3.67%	
Q2	2.64%	3.50%	4.3% - 4.6%
Q3	2.28%	3.20%	
Q4	2.82%	3.20%	4.2% - 4.5%
<u>2017</u>			
Q1	3.04%	3.70%	
Q2	2.91%	3.73%	4.3% - 4.5%
Q3	2.82%	3.66%	
Q4	2.82%	3.60%	4.1% - 4.3%
<u>2018</u>			
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%
<u>2019</u>			
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%
<u>2020</u>			
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%
<u>2021</u>			
Q1	2.07%	2.23%	
Q2	2.26%	2.77%	3.5% - 3.9%
Q3		2.63%	

Source and Note:

Blue Chip Financial Forecasts, January 2015 through
September 2021.

*Average of all 3 reports in Quarter.

Moreover, while economists are projecting a modest increase in interest rates relative to those published in the past, as noted below, these projections of increases in interest rates are at very best uncertain. But more specifically, the projected increases relative to the past are relatively modest, and demonstrate that EPE's proposal to increase its authorized return on equity in this case to 10.3% is simply not reflective of current market capital costs, particularly in comparison to its authorized return on equity of 9.65% in its last Texas case,⁶ and 9.0% in its most recent New Mexico case.⁷

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

Specifically, Fitch states the following concerning EPE:

⁷ New Mexico Public Regulation Commission Docket No. 20-00104-UT, June 23, 2021 Order at 1-2.

⁸ Budtke Direct Testimony at 11.

1 KEY RATING DRIVERS

2 **Regulated Operations:** EPE is a vertically integrated electric
3 utility serving customers in west Texas and southern New
4 Mexico. About 77% of the customer base is in Texas, which
5 Fitch considers a good service territory given strong economic
6 growth.

7 * * *

8 **Relatively Challenging Regulatory Environment:** Fitch
9 considers Texas and New Mexico challenging regulatory
10 environments, New Mexico in particular, which is approximately
11 20% of EPE's revenues. Both states have typically utilized
12 historical test year filings, with partial true ups. Regulatory lag
13 from the use of a historical test year in Texas and other factors
14 in the rate-setting process in New Mexico have made it difficult
15 for EPE to earn its authorized ROEs.

16 Offsetting some of the challenges are supportive rate
17 mechanisms such as fuel and purchased power recovery
18 mechanisms and riders for energy efficiency program costs.
19 Additionally, in Texas, EPE is able to recover its investment in
20 distribution and transmission through riders, which provide some
21 protection from regulatory lag in between rate cases.

22 * * *

23 **Significant Ring-fencing Measures:** On July 29, 2020, EPE
24 was acquired by Sun Jupiter, a wholly-owned indirect subsidiary
25 of IIF, an investment vehicle advised by JPMIM. Sun Jupiter was
26 created solely for the purpose to acquire and own EPE. The
27 utility is ring-fenced from Sun Jupiter with strong legal provisions
28 including a majority independent board (7/10), separate
29 books/record keeping, no pooled cash, no cross defaults, no
30 intercompany lending, no credit guarantees, a non-consolidation
31 opinion, and restrictions on dividends, which are limited to net
32 income and must keep EPE in compliance with authorized
33 regulatory equity ratios.

34 In addition, EPE must maintain 'BBB' credit ratings from at least
35 one major credit ratings agency (out of two) to be able to pay
36 dividends, except for contractual tax payments, until otherwise
37 ordered by the Public Utilities Commission of Texas (PUCT) and
38 NMPRC or EPE's credit rating at one of the major credit rating
39 agencies returns to 'BBB'. IIF has committed to maintain a

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controlling ownership interest in EPE for at least 10 years post-closing.⁹

Similarly, Moody's states:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹⁰

⁹ FitchRatings, Fitch Affirms El Paso Electric's IDR at 'BBB'; Outlook Stable ([fitchratings.com](https://www.fitchratings.com)), May 25, 2021 [emphasis added].

¹⁰ *Moody's Investors Service Credit Opinion*: "El Paso Electric Company, Update to credit analysis," September 21, 2020, provided by EPE as CONFIDENTIAL Response to Staff's 2nd, Q. No. STAFF 2-36, Attachment 1, Pages 35-36.

II.A. EPE's Proposed Capital Structure

Q WHAT IS EPE'S PROPOSED CAPITAL STRUCTURE?

A EPE's proposed capital structure is sponsored by EPE witness Ms. Lisa Budtke and shown in Table 3 below.

TABLE 3	
<u>EPE's Proposed Capital Structure</u> (December 31, 2020)	
<u>Description</u>	<u>Weight</u>
Long-Term Debt	49.00%
Common Equity	<u>51.00%</u>
Total Regulatory Capital Structure	100.00%
Source: Schedule K-1.	

EPE's capital structure is based on adjusted capital balances for the period ending December 31, 2020. I am not taking issue with the Company's proposed ratemaking capital structure.

II.B. Embedded Cost of Debt

Q WHAT ARE EPE'S FORECASTED AVERAGE COSTS OF LONG-TERM DEBT?

A EPE's cost of embedded long-term debt is 5.576% as developed on Schedule K-3 and discussed in the direct testimony of Ms. Budtke.

III. MARKET RETURN ON EQUITY

Q PLEASE DESCRIBE WHAT IS MEANT BY A “UTILITY’S COST OF COMMON EQUITY.”

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

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

A In general, determining a fair cost of common equity for a regulated utility has been framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va., 262 U.S. 679 (1923) and Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591 (1944). In these decisions, the Supreme Court found that just compensation depends on many circumstances and must be determined by fair and enlightened judgments based on relevant facts. The Court found that a utility is entitled to such rates as were permitted to earn a return on 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.¹¹

¹¹ *Bluefield*, 262 U.S. 679, 693 (1923), emphasis added.

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

7 **III.A. Risk Proxy Group**

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

10 **A I relied on the same proxy group developed by EPE witness Ms. Nelson with one**
11 **exception. I excluded Duke Energy Corporation because at the beginning of the year**
12 **the company reached an agreement to sell one of its major regulated subsidiaries –**
13 **Duke Indiana.**

14 Excluding companies that are involved in major acquisition or merger activity is
15 appropriate because after these merger and acquisition ("M&A") activities are
16 announced the market valuation of the securities may not accurately reflect the
17 stand-alone valuation of the company, but rather may anticipate enhanced valuation
18 from the proposed M&A action. Therefore, removing them from the proxy group is
19 necessary because the resulting DCF, CAPM and Risk Premium analyses on these
20 specific companies can be distorted and/or would simply be unreliable.

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

3 A My proxy group shown in Exhibit MPG-3. The proxy group has an average credit rating
4 from Moody's of Baa1, which is a notch higher than, but comparable to, EPE's Moody's
5 rating of Baa2.¹²

6 My proxy group has an average common equity ratio of 42.7% from S&P
7 (including short-term debt) and a 46.2% equity ratio from *Value Line* (excluding short-
8 term debt). EPE's long-term debt ratio of 51.0% is less leveraged than that of the proxy
9 group average of 46.2%.

10 **III.B. DCF Model**

11 Q PLEASE DESCRIBE THE DCF MODEL.

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

15
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad (\text{Equation 1})$$

16

17 P_0 = Current stock price

18 D = Dividends in periods 1 - ∞

19 K = Investor's required return

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

¹² Nelson Direct Testimony at 30, Table 5.

1 $K = D_1/P_0 + G$ (Equation 2)

2 K = Investor's required return

3 D_1 = Dividend in first year

4 P_0 = Current stock price

5 G = Expected constant dividend growth rate

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

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

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

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

12 A I relied on the average of the weekly high and low stock prices of the utilities in the
13 proxy group over a 13-week period ending on September 10, 2021. An average stock
14 price is less susceptible to market price variations than a price at a single point in time.
15 Therefore, an average stock price is less susceptible to aberrant market price
16 movements, which may not reflect the stock's long-term value.

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

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

2 A I used the most recently paid quarterly dividend as reported in *Value Line*.¹³ This
3 dividend was annualized (multiplied by 4) and adjusted for next year's growth to
4 produce the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by
5 multiplying the annualized dividend (D_0) by $(1+G)$.

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

8 A There are several methods that can be used to estimate the expected growth in
9 dividends. However, regardless of the method, to determine the market-required return
10 on common equity, one must attempt to estimate investors' consensus about what the
11 dividend, or earnings growth rate, will be and not what an individual investor or analyst
12 may use to make individual investment decisions.

13 As predictors of future returns, securities analysts' growth estimates have been
14 shown to be more accurate than growth rates derived from historical data.¹⁴ That is,
15 assuming the market generally makes rational investment decisions, analysts' growth
16 projections are more likely to influence investors' decisions, which are captured in
17 observable stock prices, than growth rates derived only from historical data.

18 For my constant growth DCF analysis, I have relied on a consensus, or mean,
19 of professional securities analysts' earnings growth estimates as a proxy for investor
20 consensus dividend growth rate expectations. I used the average of analysts' growth
21 rate estimates from three sources: Zacks, MI, and Yahoo! Finance. All such projections
22 were available on September 10, 2021, and all were reported online.

¹³ *The Value Line Investment Survey*, June 11, July 23, and August 13, 2021.

¹⁴ See, e.g., David Gordon, Myron Gordon & Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

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

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

12 A The growth rates I used in my DCF analysis are shown in Exhibit MPG-4. The average
13 growth rate for my proxy group is 5.58%.

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

15 A As shown in Exhibit MPG-5, the average and median constant growth DCF returns for
16 my proxy group for the 13-week analysis are 9.07% and 9.44%, respectively.

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

19 A Yes. The constant growth DCF analysis for my proxy group is based on an average
20 long-term sustainable growth rate of 5.58%. The three- to five-year growth rate is
21 higher than my estimate of a maximum long-term sustainable growth rate of 4.35%.

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

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

12 *Blue Chip Financial Forecasts* projects that over the next 5 and 10 years, the
13 U.S. nominal GDP will grow at an annual rate of approximately 4.35%. These GDP
14 growth projections reflect a real growth outlook of around 2.15% and an inflation outlook
15 of around 2.15% going forward. As such, the average nominal growth rate over the
16 next 10 years is around 4.35%, which I believe is a reasonable proxy of long-term
17 sustainable growth.¹⁵

18 **Q DO YOU CITE ANY AUTHORITATIVE SUPPORT FOR USING LONG-TERM GDP**
19 **GROWTH AS A MAXIMUM SUSTAINABLE GROWTH RATE?**

20 A Yes. In my multi-stage growth DCF analysis, I discuss academic and investment
21 practitioner support for using the projected long-term GDP growth outlook as a
22 maximum sustainable growth rate projection. Using the long-term GDP growth rate,
23 however, as a conservative projection for the maximum sustainable growth rate is

¹⁵ *Blue Chip Financial Forecasts*, June 1, 2021, at 14.

logical, and is generally consistent with academic and economic practitioner accepted practices.

III.C. Sustainable Growth DCF

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

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

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

The payout ratios of the proxy group are shown in my Exhibit MPG-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 is based on EPE'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 5.08% for the proxy group.

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

3 A A DCF estimate based on these sustainable growth rates is developed in Exhibit
4 MPG-8. As shown there, the sustainable growth DCF analysis produces proxy group
5 average and median DCF results for the 13-week period of 8.56% and 8.52%,
6 respectively.

7 **III.D. Multi-Stage Growth DCF Model**

8 Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

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

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

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

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

9 **Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

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

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

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

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

9 The U.S. Department of Energy, Energy Information Administration ("EIA") has
10 observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as shown
11 in Exhibit MPG-9. Utility sales growth has lagged behind GDP growth for more than a
12 decade. As a result, nominal GDP growth is a very conservative proxy for utility sales
13 growth, rate base growth, and earnings growth. Therefore, the U.S. GDP nominal
14 growth rate is a reasonable proxy for the highest sustainable long-term growth rate of
15 a utility.

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

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

22 The constant growth model is most appropriate for mature companies
23 with a stable history of growth and stable future expectations. Expected
24 growth rates vary somewhat among companies, but dividends for

1 mature firms are often expected to grow in the future at about the same
2 rate as nominal gross domestic product (real GDP plus inflation).¹⁶

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

5 **Estimating Growth Rates**

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

12 * * *

13 Another approach to estimating long-term growth rates is to focus on
14 estimating the overall economic growth rate. Again, this is the approach
15 used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic
16 growth rate, a forecast is made of the growth rate's component parts.
17 Expected growth can be broken into two main parts: expected inflation
18 and expected real growth. By analyzing these components separately,
19 it is easier to see the factors that drive growth.¹⁷

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

23 **A** Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP
24 to the geometric growth of the U.S. stock market. Duff & Phelps measures the historical
25 geometric growth of the U.S. stock market over the period 1926-2020 to be
26 approximately 6.2%.¹⁸ During this same time period, the U.S. nominal compound
27 annual growth of the U.S. GDP was approximately 6.0%.¹⁹

¹⁶ "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.

¹⁷ *Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

¹⁸ *Duff & Phelps, 2021 SBBI Yearbook* at 6-17.

¹⁹ U.S. Bureau of Economic Analysis, January 28, 2021.

1 As such, over the past 94 years, the geometric average growth of the U.S.
2 nominal GDP has been slightly higher than, but comparable to, the geometric average
3 growth of the U.S. stock market capital appreciation. This historical relationship
4 indicates that the U.S. GDP growth outlook is a reasonable estimate of the long-term
5 sustainable growth of U.S. stock investments.

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

9 A The terms geometric average growth rate and compound annual growth rate are used
10 interchangeably. The geometric annual growth rate is the calculated growth rate, or
11 return, that measures the magnitude of growth from start to finish. The geometric
12 average is best, and most often, used as a measurement of performance or growth
13 over a long period of time.²⁰ Because I am comparing achieved growth in the stock
14 market to achieved growth in U.S. GDP over a long period of time, the geometric
15 average growth rate is most appropriate.

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

18 A I relied on the economic consensus of long-term GDP growth projections. *Blue Chip*
19 *Financial Forecasts* publishes the consensus for GDP growth projections twice a year.
20 These consensus GDP growth outlooks are the best available measure of the market's
21 assessment of long-term GDP growth because the analysts' projections reflect all
22 current outlooks for GDP. They are therefore likely the most influential on investors'

²⁰ *New Regulatory Finance*, Roger Morin, PhD, at 133-134.

1 expectations of future growth outlooks. The consensus projections published GDP
2 growth rate outlook is 4.35% over the next 10 years.²¹

3 I propose to use the consensus for projected five- and ten-year average GDP
4 growth rates of 4.35%, as published by *Blue Chip Financial Forecasts*, as an estimate
5 of long-term sustainable growth. *Blue Chip Financial Forecasts* projections provide
6 real GDP growth projections of approximately 2.15% and inflation of 2.15% over the
7 five-year (2023-2027) and ten-year (2028-2032) projection periods, resulting in an
8 average ten-year nominal annual GDP growth projection of 4.35%.²² These GDP
9 growth forecasts represent the most likely views of market participants because they
10 are based on published economic consensus projections.

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

13 **A** Yes, and these alternative sources corroborate the consensus analysts' projections I
14 relied on. Various commonly relied upon analysts' projections are shown in Table 4
15 below.

²¹ *Blue Chip Financial Forecasts*, June 1, 2021, at 14.

²² *Id.*

TABLE 4

GDP Forecasts

<u>Source</u>	<u>Term</u>	<u>Real GDP</u>	<u>Inflation</u>	<u>Nominal GDP</u>
Blue Chip Financial Forecasts	5-10 Yrs	2.15%	2.15%	4.35%
EIA - Annual Energy Outlook	28 Yrs	2.04%	2.34%	4.42%
Congressional Budget Office	9 Yrs	1.77%	2.12%	3.93%
Moody's Analytics	28 Yrs	2.07%	1.83%	3.94%
Social Security Administration	48 Yrs			4.08%
The Economist Intelligence Unit	25 Yrs	1.81%	2.01%	3.85%

1 The EIA in its *Annual Energy Outlook* projects real GDP out until 2050. In its
2 2020 Annual Report, the EIA projects real GDP through 2050 to be 2.04% and a
3 long-term GDP price inflation projection of 2.34%. The EIA data supports a long-term
4 nominal GDP growth outlook of 4.42%.²³

5 Also, the Congressional Budget Office (“CBO”) makes long-term economic
6 projections. The CBO is projecting real GDP growth to be 1.77% during the next
7 nine years, with a GDP price inflation outlook of 2.12%. The CBO’s nine-year outlook
8 for nominal GDP based on this projection is 3.93%.²⁴

9 Moody’s Analytics also makes long-term economic projections. In its recent
10 over 25-year outlook to 2050, Moody’s Analytics is projecting real GDP growth of 2.07%
11 with GDP inflation of 1.83%.²⁵ Based on these projections, Moody’s Analytics is
12 projecting nominal GDP growth of 3.94% over the next 28 years.

²³ *Id.* and DOE/EIA Annual Energy Outlook 2020 With Projections to 2050, downloaded May 5 2021, Table Macroeconomic Indicators.

²⁴ CBO: *An Update to the Economic Outlook: 2021 to 2031*, February 2021.

²⁵ www.economy.com, *Moody’s Analytics Forecast*, May 11, 2020.

1 The Social Security Administration (“SSA”) makes long-term economic
2 projections out to 2095. The SSA’s nominal GDP projection, under its “intermediate
3 cost” scenario of approximately 50 years, is 4.08%.²⁶

4 The Economist Intelligence Unit, a division of The Economist and a third-party
5 data provider to MI, makes a long-term economic projection out to 2050. The
6 Economist Intelligence Unit is projecting real GDP growth of 1.81% with an inflation
7 rate of 2.01% out to 2050. The real GDP growth projection is in line with the consensus.
8 The long-term nominal GDP projection based on these outlooks is approximately
9 3.85%.²⁷

10 The real GDP and nominal GDP growth projections made by these independent
11 sources support my use of 4.35% as a reasonable estimate of market participants’
12 expectations for long-term GDP growth.

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

15 **A**I relied on the same 13-week average stock prices and the most recent quarterly
16 dividend payment data discussed above. For stage one growth, I used the consensus
17 analysts’ growth rate projections discussed above in my constant growth DCF model.
18 The first stage covers the first five years, consistent with the time horizon of the
19 securities analysts’ growth rate projections. The second stage, or transition stage,
20 begins in year 6 and extends through year 10. The second stage growth transitions
21 the growth rate from the first stage to the third stage using a straight linear trend. For
22 the third stage, or long-term sustainable growth stage, starting in year 11, I used a

²⁶ www.ssa.gov, “2021 OASDI Trustees Report,” Table VI.G4, August 31, 2021.

²⁷ *S&P Global Market Intelligence, Economist Intelligence Unit*, downloaded on January 28, 2021.

4.35% 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 DCF returns on equity for my proxy group using the 13-week average stock price are 8.06% and 8.12%, respectively.

III.E. DCF Summary Results

Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

A The results from my DCF analyses are summarized in Table 5 below:

TABLE 5		
<u>Summary of DCF Results</u>		
<u>Description</u>	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	9.07%	9.44%
Constant Growth DCF Model (Sustainable Growth)	8.56%	8.52%
Multi-Stage Growth DCF Model	8.06%	8.12%

DCF studies using analysts' growth rates and sustainable growth rates indicate a fair return on equity for EPE in this market within the range of 8.6% to 9.4%, with a midpoint of 9.0%.

III.F. Risk Premium Model

Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds

1 have more security of payment in bankruptcy proceedings than common equity and the
2 coupon payments on bonds represent contractual obligations. In contrast, companies
3 are not required to pay dividends or guarantee returns on common equity investments.
4 Therefore, common equity securities are considered to be riskier than bond securities.

5 This risk premium model is based on two estimates of an equity risk premium.
6 First, I quantify the difference between regulatory commission-authorized returns on
7 common equity and contemporary U.S. Treasury bonds. The difference between the
8 authorized return on common equity and the Treasury bond yield is the risk premium.
9 I estimated the risk premium on an annual basis for each year from 1986 through 2020.
10 The authorized returns on equity were based on regulatory commission-authorized
11 returns for utility companies. Authorized returns are typically based on expert
12 witnesses' estimates of the investor-required return at the time of the proceeding.

13 The second equity risk premium estimate is based on the difference between
14 regulatory commission-authorized returns on common equity and contemporary
15 "A" rated utility bond yields by Moody's. I selected the period 1986 through 2020
16 because public utility stocks consistently traded at a premium to book value during that
17 period. This is illustrated in Exhibit MPG-11, which shows the market-to-book ratio
18 since 1986 for the electric utility industry was consistently above a multiple of 1.0x.
19 Over this period, an analyst can infer that authorized returns on equity were sufficient
20 to support market prices that at least exceeded book value. This is an indication that
21 commission authorized returns on common equity supported a utility's ability to issue
22 additional common stock without diluting existing shares. It further demonstrates
23 utilities were able to access equity markets without a detrimental impact on current
24 shareholders.

25 Based on this analysis, as shown in Exhibit MPG-12, the average indicated
26 equity risk premium over U.S. Treasury bond yields has been 5.69%. Since the risk

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

5 I incorporated five-year and ten-year rolling average risk premiums over the
6 study period to gauge the variability over time of risk premiums. These rolling average
7 risk premiums mitigate the impact of anomalous market conditions and skewed risk
8 premiums over an entire business cycle. As shown on my Exhibit MPG-12, the five-
9 year rolling average risk premium over Treasury bonds ranged from 4.25% to 7.08%,
10 with an average of 5.64%. The ten-year rolling average risk premium ranged from
11 4.38% to 6.90%, with an average of 5.64%.

12 As shown on my Exhibit MPG-13, the average indicated equity risk premium
13 over contemporary "A" rated Moody's utility bond yields was 4.34%. The five-year
14 rolling average risk premiums ranged from 2.88% to 5.89%, with an average of 4.29%.
15 The ten-year rolling average risk premiums ranged from 3.20% to 5.73%, with an
16 average of 4.27%.

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

20 **A** Yes. Contemporary market conditions can change during the period that rates
21 determined in this proceeding will be in effect. A relatively long period of time where
22 stock valuations reflect premiums to book value indicates that the authorized returns
23 on equity and the corresponding equity risk premiums were supportive of investors'
24 return expectations and provided utilities access to the equity markets under
25 reasonable terms and conditions. Further, this time period is long enough to smooth

1 abnormal market movement that might distort equity risk premiums. While market
2 conditions and risk premiums do vary over time, this historical time period is a
3 reasonable period to estimate contemporary risk premiums.

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

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

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

18 **A** The equity risk premium should reflect the relative market perception of risk today in
19 the utility industry. I have gauged investor perceptions in utility risk today in Exhibit
20 MPG-14, where I show the yield spread between utility bonds and Treasury bonds over
21 the last 41 years. As shown in this exhibit, the average utility bond yield spreads over
22 Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.48%
23 and 1.91%, respectively. The utility bond yield spreads over Treasury bonds for "A"
24 and "Baa" rated utilities for 2019 were 1.18% and 1.61%, respectively. In 2020, the "A"
25 and "Baa" utility spreads are 1.49% and 1.87%, respectively. More recently in the first

1 half of 2021, the "A" and "Baa" utility spreads are 1.04% and 1.30%, respectively. Both
2 the current average "A" rated and "Baa" rated utility bond yield spreads over Treasury
3 bond yields are lower or comparable to the respective 41-year average spreads.

4 The current 13-week average "A" rated utility bond yield of 2.98% when
5 compared to the current Treasury bond yield of 1.96%, as shown in Exhibit MPG-15,
6 implies a yield spread of 1.02%. This current utility bond yield spread is significantly
7 lower than the 41-year average spread for "A" rated utility bonds of 1.48%. The current
8 spread for the "Baa" rated utility bond yield of 1.26% is also lower than the 41-year
9 average spread of 1.91%.

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

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

18 Table 6 below summarizes the utility and corporate bond spreads relative to
19 Treasury bond yields.

TABLE 6				
<u>Comparison of Yield Spreads Over Treasury Bond Yields</u>				
<u>Description</u>	<u>Utility</u>		<u>Corporate</u>	
	<u>A</u>	<u>Baa</u>	<u>Aaa</u>	<u>Baa</u>
Average Historical Spread	1.48%	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*	1.04%	1.30%	0.64%	1.34%
Source: Moody's Bond Yields				
*2021 data through August 2021				

As shown above in Table 6, the average historical utility bond yield spread is greater than the current yield spread based on 2019-2021 data. This is an indication that the market is placing a higher value on utility securities currently, and indicating a preference for lower-risk investments.

This phenomenon is also evident in utility bond spreads relative to general corporate bonds. An Aaa-rated corporate bond 41-year average spread is 0.84%, which is lower than the 2020 spread of 0.96%. The spread during the first eight months of 2021 of 0.64% indicates a movement back to a more normal risk premium.

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

A I am recommending more weight be given to the high-end risk premium estimates than the low-end. As outlined above, I believe the current market is reflecting high premiums for investing in securities of greater levels of investment risk. Based on this observation, I propose to be conservative in applying a risk premium analysis. For

1 these reasons, I will recommend my high-end equity risk premium in forming a return
2 on equity in this proceeding.

3 For Treasury bond yields, I propose a risk premium of 6.36%. I relied on the
4 risk premium at approximately the 75th percentile of the range, or 6.36%, to recognize
5 clear, observable evidence that risk premiums are at abnormally high levels right now,
6 but to also recognize that the projected Treasury bond yield is considerably higher than
7 current observable bond yields. Using a Treasury bond risk premium of 6.36% and a
8 projected Treasury bond yield of 2.60%²⁸ produces an indicated equity risk premium of
9 8.96% (6.36% + 2.60%).

10 A risk premium based on utility bond yields was also based on a high-end
11 estimate. However, because current observable yields are employed in this risk
12 premium study, In regard to my utility risk premium, I am relying on the high-end
13 estimate in the study of 5.89% on my Exhibit MPG-13 and the current 13-week Baa
14 utility yield of 3.22% as developed on my Exhibit MPG-15. Hence, a risk premium
15 based on utility bond yields indicates a return on equity of 9.11% (5.89% + 3.22%).

16 Based on this methodology, my Treasury bond risk premium and my utility bond
17 risk premium indicate a return in the range of 8.96% to 9.11%, with an approximate
18 midpoint of 9.0%.

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

20 **Q PLEASE DESCRIBE THE CAPM.**

21 **A The CAPM method of analysis is based upon the theory that the market-required rate**
22 of return for a security is equal to the risk-free rate, plus a risk premium associated with

²⁸ *Blue Chip Financial Forecasts*, September 1, 2021 at 2.

1 the specific security. This relationship between risk and return can be expressed
2 mathematically as follows:

3 $R_i = R_f + B_i \times (R_m - R_f)$ where:

4 R_i = Required return for stock i

5 R_f = Risk-free rate

6 R_m = Expected return for the market portfolio

7 B_i = Beta - Measure of the risk for stock

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

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

22 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

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

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

2 A As previously noted, *Blue Chip Financial Forecasts*' projected 30-year Treasury bond
3 yield is 2.60%.²⁹ The current 30-year Treasury bond yield is 1.96%, as shown in Exhibit
4 MPG-15.

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

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

15 Treasury bond yields, however, do include risk premiums related to
16 unanticipated future inflation and interest rates. In this regard, a Treasury bond yield
17 is not a risk-free rate. Risk premiums related to unanticipated inflation and interest
18 rates reflect systematic market risks. Consequently, for companies with betas less than
19 1.0, using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
20 can produce an overstated estimate of the CAPM return.

²⁹ *Id.*

Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

A As shown on my Exhibit MPG-16, page 1, the average beta of my proxy group is 0.89. This means that my proxy group is less risky than the market as a whole. I also reviewed the long-term trend of *Value Line* betas reported for the proxy group companies. As shown on Exhibit MPG-16, page 2, 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. The proxy group average normalized historical beta is 0.71. Thus, the current beta estimates of around 0.89 are well above the normalized historical beta.

Q IS IT REASONABLE TO ESTIMATE A CAPM RETURN ON A REGULATED UTILITY BASED ON BETA ESTIMATES THAT ARE CLEARLY OUTLIERS FOR HISTORICAL AVERAGE BETAS?

A No. Utility company betas have increased from around 0.65 to 0.75 up to a current level in excess of 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. 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 electric 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's 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.

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

4 **Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

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

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

12 Duff & Phelps' *2021 SBBI Yearbook* estimates the historical arithmetic average
13 real market return over the period 1926 to 2020 to be 9.1%.³⁰ A current consensus for
14 projected inflation, as measured by the Consumer Price Index, is 2.2%.³¹ Using these
15 estimates, the expected market return is 11.50%.³² The market risk premium then is
16 the difference between the 11.50% expected market return and my 2.60% risk-free rate
17 estimate, or 8.90%, which I referred to as a normalized market risk premium.

18 I also developed a current market risk premium based on the difference
19 between the expected return on the market of 11.50% as described above and the
20 current 30-year Treasury yield of 1.96% as shown on my Exhibit MPG-15, which
21 produced a current market risk premium of 9.54%.

³⁰ Duff & Phelps, *2021 SBBI Yearbook* at 6-18.

³¹ *Blue Chip Financial Forecasts*, September 1, 2021 at 2.

³² $\{ (1 + 0.091) * (1 + 0.022) - 1 \} * 100$.

1 A historical estimate of the market risk premium was also calculated by using
2 data provided by Duff & Phelps in its *2021 SBBI Yearbook*. Over the period 1926
3 through 2020, the Duff & Phelps study estimated that the arithmetic average of the
4 achieved total return on the S&P 500 was 12.2%³³ and the total return on long-term
5 Treasury bonds was 6.1%.³⁴ The indicated market risk premium is 6.1% (12.2% - 6.1%
6 = 6.1%).

7 The long-term government bond yield of 6.1% occurred during a period of
8 inflation of approximately 2.9%, thus implying a real return on long-term government
9 bonds of 3.2%.

10 **Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO**
11 **THAT ESTIMATED BY DUFF & PHELPS?**

12 A Duff & Phelps makes several estimates of a forward-looking market risk premium based
13 on actual achieved data from the historical period of 1926 through 2020 as well as
14 normalized data. Using this data, Duff & Phelps estimates a market risk premium
15 derived from the total return on the securities that comprise the S&P 500, less the
16 income return on Treasury bonds. The total return includes capital appreciation,
17 dividend or coupon reinvestment returns, and annual yields received from coupons
18 and/or dividend payments. The income return, in contrast, only reflects the income
19 return received from dividend payments or coupon yields.

20 Duff & Phelps' range is based on several methodologies. First, Duff & Phelps
21 estimates a market risk premium of 7.25% based on the difference between the total

³³ *Duff & Phelps 2021 SBBI Yearbook* at 6-17.

³⁴ *Id.*

1 market return on common stocks (S&P 500) less the income return on 20-year Treasury
2 bond investments over the 1926-2020 period.³⁵

3 Second, Duff & Phelps used the Ibbotson & Chen supply-side model which
4 produced a market risk premium estimate of 6.0%.³⁶ Duff & Phelps explains that the
5 historical market risk premium based on the S&P 500 was influenced by an abnormal
6 expansion of P/E ratios relative to earnings and dividend growth during the period,
7 primarily over the last 30 years. Duff & Phelps believes this abnormal P/E expansion
8 is not sustainable. In order to control for the volatility of extraordinary events and their
9 impacts on P/E ratios, Duff & Phelps takes into consideration the three-year average
10 P/E ratio as the current P/E ratio.³⁷

11 Finally, Duff & Phelps develops its own recommended equity, or market risk
12 premium, by employing an analysis that takes into consideration a wide range of
13 economic information, multiple risk premium estimation methodologies, and the current
14 state of the economy by observing measures such as the level of stock indices and
15 corporate spreads as indicators of perceived risk. Based on this methodology, and
16 utilizing a “normalized” risk-free rate of 2.5%, Duff & Phelps concludes the current
17 expected, or forward-looking, market risk premium is 5.5%, implying an expected return
18 on the market of 8.0%.³⁸

19 Importantly, Duff & Phelps’ market risk premiums are measured over a 20-year
20 Treasury bond. Because I am relying on a projected 30-year Treasury bond yield, the
21 results of my CAPM analysis should be considered conservative estimates for the cost
22 of equity.

³⁵ *Id.* at 10-21.

³⁶ *Id.* at 10-29.

³⁷ *Id.*

³⁸ *Duff & Phelps*: “Technical Update: Duff & Phelps Recommended U.S. Equity Risk Premium Decreased from 6.0% to 5.5%,” December 10, 2020.

1 Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?

2 A The market data outlined above shows that current observable risk-free rates are
3 around 1.96%, but projected risk-free rates increase to around 2.60%. Similarly,
4 current observable beta estimates are around 0.89 but forward-looking more
5 normalized beta estimates have consistently been about 0.71. I will use all these
6 CAPM data in deriving a reasonable estimate of the current market cost of equity.

7 As shown on my Exhibit MPG-17, using a current market risk-free rate of 1.96%,
8 a projected market return of 11.50%, produces a market risk premium of 9.54%,
9 combined with the current beta of 0.89 indicates a CAPM return estimate of 10.43%.
10 This CAPM is overstated due to the abnormally high beta estimate.

11 Using a market return of 11.50%, with a projected risk-free rate of 2.60%,
12 produces a market risk premium of 8.90%. This market risk premium and risk-free rate
13 with a normalized utility beta of 0.71, indicates a CAPM return of about 8.96%.

14 The midpoint of this CAPM return range is approximately 9.7% (midpoint of
15 10.43% and 8.96%).

16 **III.H. Return on Equity Summary**

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

20 A Based on my analyses, I recommend EPE's current market cost of equity be in the
21 range of 9.00% to 9.40%, with a point estimate of 9.20%.

TABLE 7	
<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	9.00%
Risk Premium	9.00%
CAPM	9.70%

My recommended return on common equity of 9.20% falls at the midpoint of the range of 9.00% to 9.40%. The low-end of my range is based on my DCF and Risk Premium analyses, and the high-end is based on the approximate average of my risk premium and CAPM returns.

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 electric utility industry and the market's demand for utility securities.

IV. FINANCIAL INTEGRITY

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

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

1 Q PLEASE DESCRIBE THE S&P FINANCIAL RATIO CREDIT METRIC
2 METHODOLOGY.

3 A S&P publishes a matrix of financial ratios corresponding to its assessment of the
4 business risk of utility companies and related bond ratings. On May 27, 2009, S&P
5 expanded its matrix criteria by including additional business and financial risk
6 categories.³⁹

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

10 The financial risk profile categories are "Minimal," "Modest," "Intermediate,"
11 "Significant," "Aggressive," and "Highly Leveraged." Most of the utilities have a financial
12 risk profile of "Aggressive."

13 Q CAN S&P'S CREDIT METRIC METHODOLOGY BE USED TO ASSESS THE
14 REASONABLENESS OF YOUR RECOMMENDED RATE OF RETURN FOR EPE, IF
15 IT DOES NOT HAVE AN S&P BOND RATING?

16 A Because EPE does not currently have a business risk profile score and financial risk
17 profile score from S&P, these metrics cannot be applied directly to EPE. However, I
18 would note that EPE is unique from most electric utility companies in that it no longer
19 has a credit rating from S&P. Indeed, all the electric utility industry companies followed
20 by *Value Line*, except for MGE Energy, have S&P bond ratings.

21 In order to assess whether or not my recommended rate of return supports both
22 EPE's financial strength and provides fair compensation, I am applying the S&P credit

³⁹ 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.

1 metrics with my rate of return for EPE based on the business and financial score
2 makeup of my proxy group, EPE's S&P's financial and business score ratings prior to
3 the elimination of these ratings, and a normal distribution of S&P's financial and
4 business score ratings for the electric utility industry.

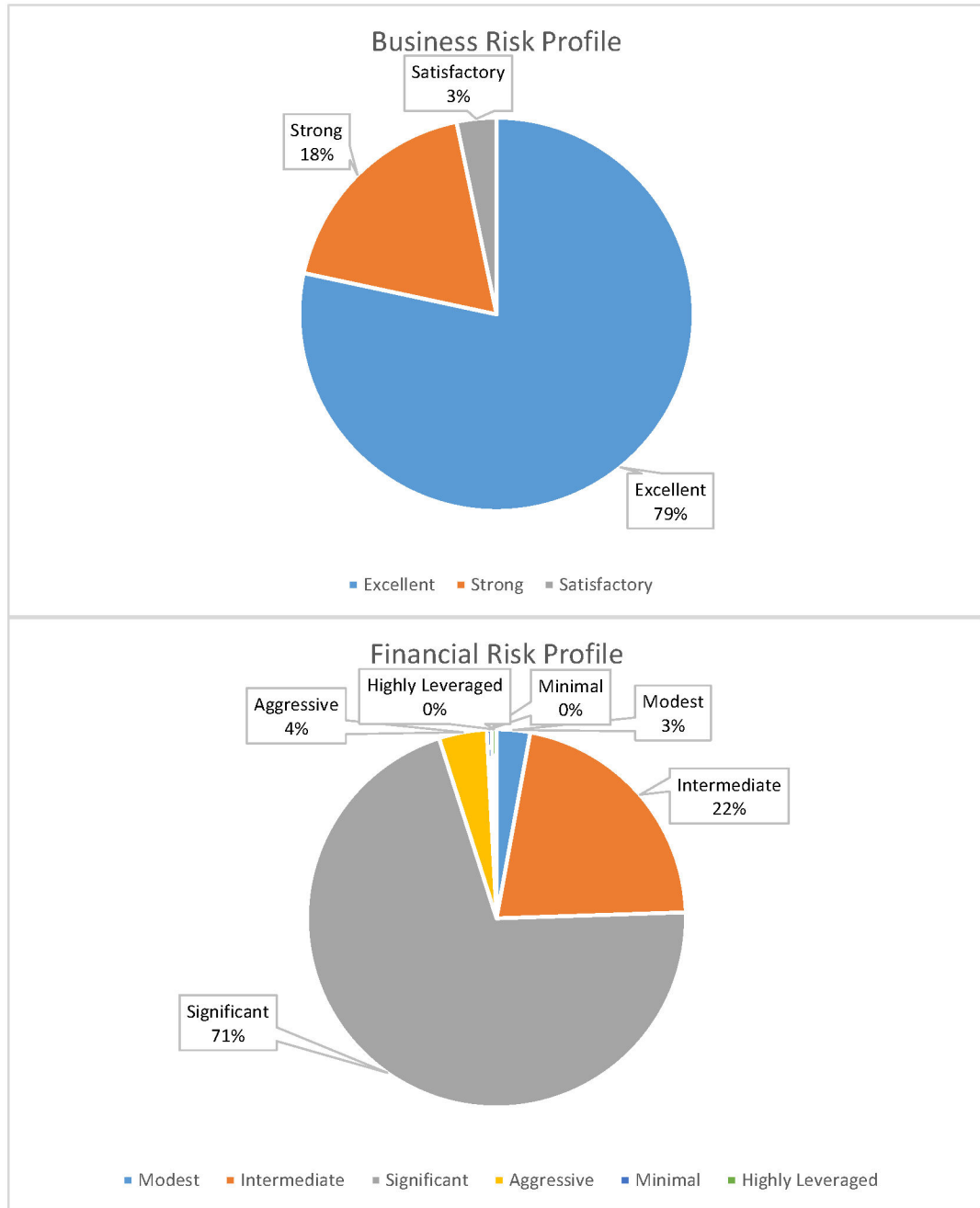
5 Based on a credit report issued May 21, 2018 for EPE, prior to its acquisition by
6 Sun Jupiter Holdings LLC, S&P had business and financial risk profile scores for EPE
7 of "Strong" and "Significant," respectively.⁴⁰ As shown on my Exhibit MPG-18 and in
8 Figure 5 below, the electric utility industry has average business and financial score
9 ratings from S&P of "Excellent" and "Significant," respectively.

10 EPE's business risk is still largely described by the regulatory mechanisms in
11 its service territory in New Mexico and in Texas. Further, as noted above, its capital
12 structure and related cash flow coverage credit metrics have largely reflected strong
13 regulatory performance, and adequate coverage to supports its bond rating. Hence, I
14 propose to use EPE's previous S&P business and financial risk credit scores as a proxy
15 for its current business and financial risk assessment.

16 Using EPE's S&P business score reasonably aligns with the electric utility
17 industry average, which as shown in Figure 5 below, suggests that EPE's "Strong"
18 business profile score is somewhat weaker than the industry norm, but its "Significant"
19 financial profile score aligns with the majority of regulated utility companies. For these
20 reasons, I believe using S&P's previous business and profile score rankings for EPE is
21 still reasonable, and will produce a reasonable assessment of whether or not my
22 recommended rate of return will support its investment grade bond rating and financial
23 integrity.

⁴⁰ *S&P RatingsDirect*: "El Paso Electric Co.," May 21, 2018.

Figure 5
S&P Utility Industry Credit Metrics



Source: Exhibit MPG-18.

- 1 I propose to use S&P's bond rating as opposed to Moody's and Fitch, because
- 2 S&P's methodology more closely aligns with the cost of service constructs within a rate

1 case proceeding. Also, S&P publishes a matrix which clearly delineates credit rating
2 metrics with an assigned credit rating. For these reasons, I propose to use S&P's credit
3 metric analysis to demonstrate the reasonableness of my overall rate of return in
4 supporting EPE's credit rating and in turn access to capital.

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

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

12 S&P publishes ranges for primary financial ratios that it uses as guidance in its
13 credit review for utility companies. The two core financial ratio benchmarks it relies on
14 in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,
15 Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to
16 Total Debt.⁴¹

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

19 A I calculated each of S&P's financial ratios based on EPE's cost of service for its
20 regulated utility operations in its Texas service territory. While S&P would normally
21 look at total consolidated EPE financial ratios in its credit review process, my
22 investigation in this proceeding is not the same as S&P's. I am attempting to judge the

⁴¹ *Standard & Poor's RatingsDirect*: "Criteria: Corporate Methodology," November 19, 2013.

1 reasonableness of my proposed cost of capital for rate-setting in EPE's Texas
2 regulated utility operations. Hence, I am attempting to determine whether my proposed
3 rate of return will in turn support cash flow metrics, balance sheet strength, and
4 earnings that will support an investment grade bond rating and EPE's financial integrity.

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

7 A No. The Company indicated that it is not aware of it having any OBS by any of its credit
8 rating agencies.⁴²

9 **Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS AS IT**
10 **RELATES TO EPE'S REGULATED OPERATIONS.**

11 A The S&P financial metric calculations for EPE at a 9.20% return are developed on
12 Exhibit MPG-19, page 1. The credit metrics produced below, with EPE's financial risk
13 profile from S&P of "Significant" and business risk profile of "Strong," will be used to
14 assess the strength of the credit metrics based on EPE's retail operations in the state
15 of Texas.

16 The adjusted debt ratio for credit metric purposes at the Company's proposed
17 capital structure is 51.8%, which is lower than the adjusted industry median debt ratio
18 for BBB rated utilities of 54.2%, as shown on page 4 of Exhibit MPG-19. A lower debt
19 ratio indicates, all else equal, less financial risk.

20 Based on an equity return of 9.20% and the Company's proposed common
21 equity ratio of 51.0%, EPE will be provided an opportunity to produce a Debt to

⁴² EPE's response to TIEC 1-14.

1 Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") ratio of
2 4.1x. This is within S&P's "Significant" guideline range of 3.5x to 4.5x.⁴³

3 EPE's retail utility operations FFO to total debt coverage at a 9.20% equity
4 return and 51.0% equity ratio is 17%, which is within S&P's "Significant" metric
5 guideline range of 13% to 23%. This ratio is again within the FFO/total debt range that
6 will support EPE's credit rating.

7 I conclude that EPE's core credit metrics ratios based on the Company's
8 proposed capital structure and my return on equity will support its investment grade
9 credit rating of BBB, or stronger.

10 **Q DOES THIS FINANCIAL INTEGRITY ASSESSMENT SUPPORT YOUR**
11 **RECOMMENDED OVERALL RATE OF RETURN FOR EPE?**

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

16 **V. RESPONSE TO EPE WITNESS MS. NELSON**

17 **Q WHAT RETURN ON COMMON EQUITY IS EPE PROPOSING FOR THIS**
18 **PROCEEDING?**

19 **A** Ms. Nelson recommends a return on equity in the range of 9.75% to 10.75% based on
20 her market-based model results. She concludes that a return on equity of 10.30% is
21 reasonable. Her recommendation reflects her assessment of the current capital market

⁴³ *Standard & Poor's RatingsDirect*®: "Criteria: Corporate Methodology," November 19, 2013.

1 conditions and EPE's business risks relative to the companies included in her proxy
2 group.⁴⁴

3 **Q ARE MS. NELSON'S RETURN ON EQUITY ESTIMATES REASONABLE?**

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

- 7 1. Her constant growth DCF results are based on unsustainably high growth
8 rates;
- 9 2. Her application of the quarterly DCF overstates the fair return on equity;
- 10 3. Her CAPM is based on inflated market risk premiums;
- 11 4. Her Empirical CAPM ("ECAPM") is based on a flawed methodology;
- 12 5. Her Bond Yield Plus Risk Premium studies are based on inflated utility
13 equity risk premiums;
- 14 6. Both her CAPM and Risk Premium studies are based on long-term
15 projected interest rates that are highly uncertain, and do not reflect the time
16 period where rates set in this proceeding will be in effect.

17 **Q PLEASE COMPARE YOUR RECOMMENDED RETURN ON EQUITY WITH MS.**
18 **NELSON'S RETURN ON EQUITY ESTIMATES.**

19 **A** Ms. Nelson's return on equity estimates are summarized in Table 8 below. In the
20 "Adjusted" Column 2, I show the results with prudent and sound adjustments to correct
21 the flaws referenced above. With such adjustments to Ms. Nelson's proxy group's
22 DCF, CAPM, ECAPM and Risk Premium return estimates, Ms. Nelson's studies show
23 that my 9.20% recommended return on equity for EPE is more reasonable and
24 consistent with the current capital market environment.

⁴⁴ Nelson Direct Testimony at 2.

TABLE 8		
<u>Nelson's Adjusted Return on Equity Estimates</u>		
<u>Description</u>	<u>Mean / Median¹</u>	<u>Adjusted</u>
	<u>(1)</u>	<u>(2)</u>
<u>Constant Growth DCF</u>		
30-Day Average	9.43%	8.42%
90-Day Average	9.43%	8.47%
180-Day Average	9.52%	8.51%
<u>Quarterly Growth DCF</u>		
30-Day Average	9.57%	8.42%
90-Day Average	9.62%	8.47%
180-Day Average	9.69%	8.51%
<u>CAPM</u>		
Current 30-Yr Treasury (2.31%)	12.71% / 12.42%	10.34% / 10.12%
Near-Term Projected 30-Yr Treasury (2.88%) ²	12.78% / 12.51%	10.39% / 10.18%
Alternative CAPM (historical beta)		8.83% / 8.94%
<u>ECAPM</u>		
Current 30-Yr Treasury (2.31%)	13.08% / 12.87%	Reject
Near-Term Projected 30-Yr Treasury (2.88%) ²	13.14% / 12.93%	Reject
<u>Risk Premium</u>		
Current 30-Yr Treasury (2.31%)	9.81%	8.67%
Near-Term Projected 30-Yr Treasury (2.88%) ²	9.81%	9.04%
Recommended ROE	10.30%	9.20%
Sources: ¹ Nelson Direct Testimony at 3-4 and Exhibit JEN-1 through JEN-8.		
² The near-term yield reflects the six quarters ending Q3, 2022 and the long-term yields for the 5-10 year periods ending 2026 and 2031.		

1 As shown in Table 8 above, corrections and improvements to the accuracy of
2 Ms. Nelson's return on equity estimates support a return on equity for EPE of no higher
3 than 9.20% in the current market.

4 While my adjustments are presented in Adjusted Column 2 of Table 8 above, a
5 description of the bases for my adjustments to Ms. Nelson's return on equity estimates
6 is presented below.

V.A. Reliability of DCF and CAPM Return Estimates

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

A Yes. Ms. Nelson opines that the traditional DCF analyses are not producing reasonable results at this time due to the current capital market conditions and should be considered with caution. She goes on to state that current market conditions reflect a low interest rate environment, which affects security dividend yields and valuations relative to historical levels and concludes that the DCF results should be given less weight than other models in determining the fair return on equity for EPE.⁴⁵ She also opines that interest rates are expected to increase.⁴⁶

Q HAS MS. NELSON 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, economists have consistently been projecting increases in interest rates relative to current observable interest rates over the last several years. However, those 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 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

⁴⁵ *Id.* at 6-10.

⁴⁶ *Id.* at 25-26.

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 MODEL IS PRODUCING RELIABLE RESULTS FOR UTILITY COMPANIES WHEN THE DCF RETURN COMPONENT IS COMPARED TO ALTERNATIVE INVESTMENTS.

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 can be compared to alternative investments to demonstrate their reasonableness.

The current dividend yield of electric utility stock (3.59%) is higher but comparable to the yield on "A" rated utility bonds (3.14%) as shown my Exhibit MPG-2, page 4. Because utility stock dividends can grow over time, and utility bond yield coupons are fixed, historically utility stock dividend yields are lower than observable utility bond yields. The current yield spread of around -45 basis points is negligible, as described later in my testimony. This relatively narrow spread between A-rated utility bonds and utility stock dividend yields is an indication that the yield component, or income component, on a utility stock is competitive with alternative income returns such as A-rated utility bond yields. This is an indication that the yield component of a DCF return is comparable with alternative investments.

Specifically, as shown on Exhibit MPG-2, page 4, the historical average yield spread between A-rated utility bonds and electric utility stock dividends has been 0.79%, which is much higher than the current yield spread of -0.45% for electric utilities.

1 This indicates the DCF income return on utility stocks (dividend yield) is competitive
2 with the income return available on utility bond investments.

3 The growth component of the DCF return relates to earnings and stock growth
4 over time. The growth outlook for utility stocks is not depressed generally, but rather
5 provides a robust outlook for dividends and stock price growth. The DCF return is not
6 understated due to the DCF growth rate component.

7 Exhibit MPG-2, page 5 also shows the annual growth in dividends for utilities
8 over the last 16 years has been approximately 4.17%. A forward growth rate of 5.58%,
9 as shown in Exhibit MPG-4, is higher than the realized historical growth. Also, utility
10 earnings growth is expected to be considerably higher than the growth of the U.S. GDP,
11 which generally is regarded as the maximum sustainable growth of the market in
12 general. Going forward, long-term sustainable growth for equity investments is around
13 4.35%, as described above. Based on these factors, the growth rate component of a
14 regulated utility DCF return is quite robust and produces a highly competitive DCF
15 return estimate.

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

19 **V.B. Nelson's Constant Growth DCF Models**

20 **Q PLEASE DESCRIBE MS. NELSON'S CONSTANT GROWTH DCF RETURN**
21 **ESTIMATES.**

22 **A** Ms. Nelson's constant growth DCF returns are developed on her Exhibit JEN-2. Ms.
23 Nelson's constant growth DCF models are based on consensus growth rates published
24 by *Yahoo! Finance* and *Zacks* and individual growth rate projections made by *Value*
25 *Line*.

1 She relied on dividend yield calculations based on average stock prices over
2 three different time periods: 30-day, 90-day, and 180-day ending March 31, 2021 – all
3 reflecting a half year of dividend growth adjustments.

4 **Q DO YOU HAVE ANY ISSUES WITH MS. NELSON'S CONSTANT GROWTH DCF**
5 **RESULTS?**

6 A Yes. As discussed in regard to my own DCF study, the current consensus analysts'
7 growth rates are higher than the long-term sustainable growth rate of 4.35%. Ms.
8 Nelson's constant growth DCF model is based on an average proxy group growth rate
9 of 5.75%, which is significantly above the long-term sustainable growth rate. Therefore,
10 contrary to Ms. Nelson's conclusions, her DCF results should be considered as a high-
11 end DCF return for EPE.

12 **Q DO YOU HAVE ANY CONCERNS WITH MS. NELSON'S QUARTERLY DCF**
13 **RETURN ESTIMATES?**

14 A Yes. Ms. Nelson included quarterly compounding in her DCF return estimates to
15 replicate reinvestment of quarterly dividends over a year, but that can overstate a fair
16 return on equity for setting rates. This occurs because the return available to investors
17 from reinvesting dividends is not a cost to the utility. Therefore, it should not be
18 reflected as a cost of capital in setting utility rates. By including the quarterly
19 compounding adjustment in the authorized returns used to set rates, investors are
20 provided an opportunity to earn that quarterly compounding return twice: first, by
21 setting rates to increase the allowed return on equity to include a dividend reinvestment
22 return despite the absence of actual reinvestment of the dividend in the utility; and
23 second, investors are able to earn the reinvestment dividend return again when they
24 receive dividends from the utilities and actually reinvest in alternative investments.

As such, including the quarterly compounding return in the DCF return estimates overstates a fair return on equity for setting rates because it overstates the utility's cost of capital. Removing the quarterly compounding from Ms. Nelson's DCF return estimates causes that model to yield the same results as her constant growth DCF model, which again should be considered as a high-end DCF return for EPE.

Q IS THERE A WAY TO CORRECT MS. NELSON'S CONSTANT GROWTH DCF RESULTS TO REFLECT A REASONABLE GROWTH RATE EXPECTATION?

A Yes. In Column 2 in Table 8 above and my Exhibit MPG-20, 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. Ms. Nelson's constant growth DCF mean adjusted results generally support a return on equity no higher than 8.5%.

V.C. Nelson's CAPM Studies

Q PLEASE DESCRIBE MS. NELSON'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:

$$B_i \times (R_m - R_f) \text{ where:}$$

B_i = Beta - Measure of the risk for stock

R_m = Expected return for the market portfolio

R_f = Risk-free rate

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

A I have two primary issues with Ms. Nelson's CAPM study. First, I believe the market risk premiums she used in all her CAPM studies are overstated because they do not

1 reflect a reasonable estimate of the expected return on the market. Second, Ms.
2 Nelson relies on a projected risk-free rate based on the 30-Year Treasury yield for the
3 six quarter period ending Q3, 2022, and the projected yields for the periods of 2022 to
4 2026 and 2027 to 2031, or five to ten years in the future. These long-term projected
5 Treasury bond yields are expected to be in effect long after the rates determined in this
6 proceeding will be in effect, and very well may go into effect after EPE files its next rate
7 case. As such, relying on projected Treasury bond yields five to ten years into the
8 future does not reasonably nor accurately measure EPE's cost of capital for setting
9 rates in this case that will reflect its cost of capital during the period rates will be in
10 effect. Ms. Nelson's consistent reliance on projected interest rates five to ten years out
11 is unreasonable and should be rejected. These issues are discussed in greater detail
12 below.

13 **Q PLEASE DESCRIBE MS. NELSON'S MARKET RISK PREMIUMS.**

14 **A** Ms. Nelson derived her market risk premiums by developing a DCF analysis for the
15 market (S&P 500). Ms. Nelson used two market risk premium estimates of 11.90%,
16 and 11.32% based on the DCF market return of 14.21% from Value Line less the
17 current and projected 30-year Treasury bond yields of 2.31%, and 2.88%,
18 respectively.⁴⁷

19 **Q WHAT ISSUES DO YOU HAVE WITH MS. NELSON'S MARKET RISK PREMIUM**
20 **ESTIMATES?**

21 **A** Ms. Nelson's DCF-derived market risk premium is based on an average market return
22 of 14.21%,⁴⁸ which consists of a growth rate component of approximately 12.56% and

⁴⁷ *Id.* at 43-44 and Exhibit JEN-5.

⁴⁸ Exhibit JEN-4.

1 market-weighted dividend yields of 1.65%. As discussed above with respect to my own
2 DCF model, the DCF model requires a long-term sustainable growth rate. Ms. Nelson's
3 sustainable market growth rate of 12.56% is far too high to be a rational outlook for
4 sustainable long-term market growth. These growth rates are nearly three times the
5 long-term growth rate outlook for the U.S. GDP, which is 4.35% as discussed above.

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

10 **Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT MS. NELSON'S**
11 **PROJECTED MARKET RETURNS?**

12 **A** No. Historical data shows just how unreasonable Ms. Nelson's projected DCF return
13 on the market is on a going-forward basis. Duff & Phelps estimates the actual capital
14 appreciation for the S&P 500 over the period 1926 through 2020 to have been 6.2% to
15 8.0%.⁴⁹ This compares to Ms. Nelson's projected growth rate of the market of 12.56%.

16 Further, historically the geometric growth of the market of 6.2%⁵⁰ has reflected
17 geometric growth of GDP over this same time period of approximately 6.2%.⁵¹

18 This review of historical data establishes two facts very clearly. First, historical,
19 actual achieved growth has been substantially less than projected by Ms. Nelson.
20 Second, historical growth of the market has tracked historical growth of the U.S. GDP.
21 Projected growth of the U.S. GDP is now closer to the 4.0% to 4.5% range. All this
22 information strongly supports the conclusion that Ms. Nelson's projected growth rate

⁴⁹ *Duff & Phelps 2021 SBBi Yearbook* at 6-17.

⁵⁰ *Id.*

⁵¹ U.S. Bureau of Economic Analysis, January 28, 2021.

1 on the market of 12.56% is substantially overstated. While I do not endorse the use of
2 a historical growth rate to draw assessments of the market's forward-looking growth
3 rate outlooks, this data can be used to show how unreasonable and inflated Ms.
4 Nelson's market return estimate is.

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

7 A Her use of a long-term projected bond yield does not reflect market participants'
8 outlooks for EPE's cost of capital during the period rates determined in this proceeding
9 will be in effect. Her projected bond yield of 2.88% is based on (1) the average near-
10 term projected 30-year Treasury bond yield of 2.57% based on the six quarter average
11 ending Q3, 2022⁵² and (2) the average (3.2%) of the projected 30-year treasury of 2.8%
12 for the period 2022-2026 and the projected yield of 3.6% for the period 2027-2031.⁵³
13 These long-term projections are highly uncertain, and in any event, do not reflect the
14 cost of capital in the test period or even the period over the next two to three years,
15 which is when the rates determined in this proceeding will be in effect. As such, the
16 market risk premium should be based on observable bond yields in the market today.
17 Alternatively, the market risk premium should at most reflect bond yield projections
18 through the time frame that the rates set in this case will be effective. While I am not a
19 lawyer, it is my understanding that electric utilities in Texas are generally required to
20 file a rate case every four years unless the Commission grants a good cause waiver to
21 postpone those filings.

22 Ms. Nelson's primary reliance on forecasted Treasury bond yields is
23 unreasonable because she is not considering the highly likely outcome that current

⁵² *Blue Chip Financial Forecasts*, April 1, 2021 at 2; Nelson Direct Testimony at 42.

⁵³ *Blue Chip Financial Forecasts*, December 1, 2020 at 14; Nelson Direct Testimony at 42.

1 observable interest rates will prevail during the period in which rates determined in this
2 proceeding will be in effect. This is important because, while current observable
3 interest rates are actual market data that provides a measure of the current cost of
4 capital, the accuracy of forecasted interest rates is highly problematic.

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

7 **A** Over the last several years, observable current interest rates have been a more
8 accurate predictor of future interest rates than economists' consensus projections.
9 Exhibit MPG-21 illustrates this point. Specifically, on Exhibit MPG-21, under Columns
10 1 and 2, I show the actual market yield for Treasury bonds at the time a projection is
11 made, and the corresponding projection for Treasury bond yields two years in the
12 future, respectively.

13 As shown in Columns 1 and 2 of Exhibit MPG-21, over the last several years,
14 Treasury yields were projected to increase relative to the actual Treasury yields at the
15 time of the projection. In Column 4, I show the actual Treasury yield two years after
16 the forecast. In Column 5, I show the actual yield change at the time of the projections
17 relative to the projected yield change.

18 As shown in Exhibit MPG-21, economists have consistently projected that
19 interest rates will increase over the near term. However, as shown in Column 5, those
20 yield projections turned out to be overstated in almost every case. Indeed, actual
21 Treasury yields have decreased or remained flat over the last several years rather than
22 increasing as the economists' projections indicated. As such, current observable
23 interest rates are just as likely to accurately predict future interest rates as are
24 economists' projections.

1 Q DO YOU HAVE ANY FURTHER COMMENTS IN REGARD TO MS. NELSON'S
2 CAPM ANALYSES?

3 A Yes. Ms. Nelson's standard practice is to rely on beta estimates from both *Value Line*
4 (0.87) and Bloomberg (1.0).⁵⁴ However, to be conservative she used the Value Line
5 betas in her CAPM studies. Ms. Nelson, also notes the increase in the beta coefficient
6 since February 2020.⁵⁵ As discussed in regard to my own CAPM study the current beta
7 estimates have increased substantially during the COVID-19 pandemic. However,
8 these elevated beta estimates do not represent an increase in utility risk or cost of
9 equity. As discussed above, utility companies are well positioned to weather economic
10 downturns and are considered defensive stocks. Their cash flows strength is
11 consistent and supported by strong valuations.

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

14 A Yes. It is reasonable to revise Ms. Nelson's CAPM analysis by disregarding her
15 long-term projected risk-free rate of 3.60% as described above and instead using her
16 current and near-term projected risk-free rates of 2.31% and 2.68%, respectively.
17 Applying those risk-free rates, the average *Value Line* beta estimate of 0.87 and my
18 calculated market return of 11.50%, Ms. Nelson's CAPM would yield returns on equity
19 no higher than 10.4%.⁵⁶ Applying the current and near-term risk-free rates of 2.31%
20 and 2.68%, respectively, my market return of 11.50%, and the average historical beta
21 for regulated utilities of approximately 0.71, will result in a CAPM return no higher than
22 8.9%.⁵⁷ However, Ms. Nelson's CAPM return estimate is influenced by an abnormally

⁵⁴ Nelson Direct Testimony at 43.

⁵⁵ *Id.* at 23-25.

⁵⁶ $2.68\% + 0.87 \times (11.50\% - 2.68\%) = 10.4\%$.

⁵⁷ $2.68\% + 0.71 \times (11.50\% - 2.68\%) = 8.9\%$.

high market risk premium and abnormally high utility beta estimates. Her 10.4% CAPM return is simply unreasonably high, and clearly out of line with other observable benchmarks for the current market cost of capital for EPE. The more normalized CAPM produces a return on equity of 8.9%, which is reasonably aligned with results based on DCF and other forms of risk premium analyses in the current market.

V.D. Nelson's ECAPM Studies

Q PLEASE DESCRIBE MS. NELSON'S ECAPM ANALYSIS.

A Ms. Nelson 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. Nelson modifies the traditional CAPM model as follows:

$$R_i = R_f + 0.75 \times B_i \times (R_m - R_f) + 0.25 \times B_m \times (R_m - R_f) \text{ where:}$$

R_i = Required return for stock i

R_f = Risk-free rate

R_m = Expected return for the market portfolio

B_m = Beta of the market

B_i = Beta - Measure of the risk for stock

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

A The biggest issue I have with Ms. Nelson's ECAPM analysis is her use of an adjusted beta as published by *Value Line*. The impact of Ms. Nelson's ECAPM adjustments

1 increases her adjusted beta estimate of 0.87 to 0.90.⁵⁸ The weighting adjustments
2 applied in the ECAPM are mathematically the same as adjusting beta since the inputs
3 are all multiplicative as shown in the formula above.

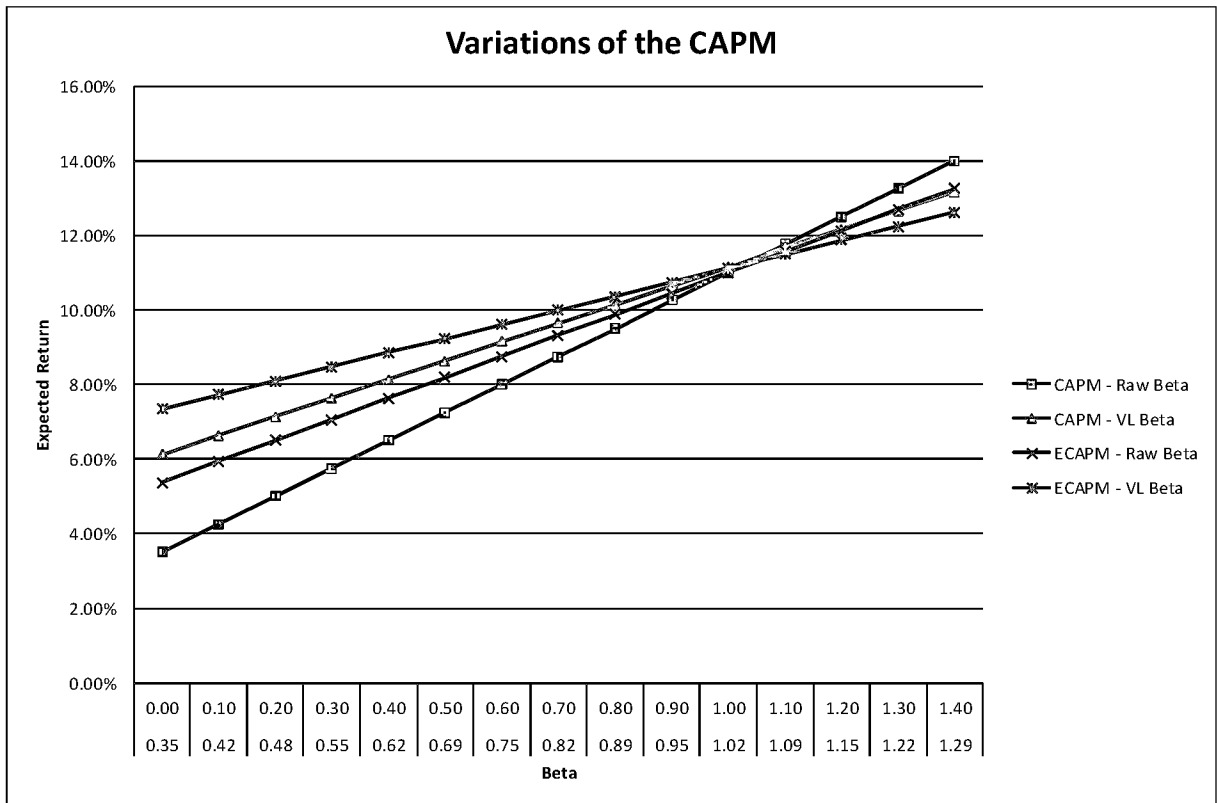
4 Further, Ms. Nelson's reliance on an adjusted *Value Line* beta in her ECAPM
5 study is inconsistent with the academic research that I am aware of supporting the
6 development of the ECAPM.⁵⁹ The end result of using adjusted betas in the ECAPM
7 is essentially an expected return line that has been flattened by two adjustments. In
8 other words, the vertical intercept has been raised twice and the security market line
9 has been flattened twice: once through the adjustments *Value Line* made to the raw
10 beta, and again by weighting the risk-adjusted market risk premium as Ms. Nelson has
11 done. In addition to the many adjustments employed by Ms. Nelson, she further
12 increases the intercept and flattens the security market line by using projected
13 long-term Treasury yields that are at odds with current market expectations and
14 inconsistent with the Federal Reserve's projections and monetary policy.

15 Ms. Nelson goes over the theory of the ECAPM at pages 45-47 of her Direct
16 Testimony. The ECAPM with adjusted betas has the effect of increasing CAPM return
17 estimates for companies with betas less than 1, and decreasing the CAPM return
18 estimates for companies with betas greater than 1. I have modeled the expected return
19 line resulting from the application of the various forms of the CAPM/ECAPM below in
20 Figure 6.

⁵⁸ $75\% \times 0.87 + 25\% \times 1 = 0.90$.

⁵⁹ 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 6



Along the horizontal axis in Figure 6 above, I have provided the raw unadjusted beta (top row) and the corresponding adjusted *Value Line* beta (bottom row). As shown in Figure 6 above, the CAPM using a *Value Line* beta compared to the CAPM using an unadjusted beta shows that the *Value Line* beta raises the intercept point and flattens the slope of the security market line. As shown in the figure above, the two variations with the most similar slope are the CAPM with the *Value Line* beta, and the ECAPM with a raw beta. This evidence shows that the ECAPM adjustment has a very similar impact on the expected return line as a *Value Line* beta. Another observation that can be made from the figure above is the magnifying effect that the ECAPM using a *Value Line* beta has on raising the vertical intercept and flattening the slope relative to all other variations. There is simply no legitimate basis to use an adjusted beta within an

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

3 **Q IN YOUR EXPERIENCE, IS MS. NELSON'S PROPOSED USE OF AN ADJUSTED**
4 **BETA IN AN ECAPM STUDY WIDELY ACCEPTED IN THE REGULATORY ARENA?**

5 **A** No. In my experience, regulatory commissions generally disregard the use of the
6 ECAPM, particularly when an adjusted beta is used in the model.

7 **Q IS THERE A WAY TO MORE ACCURATELY MEASURE THE COST OF EQUITY**
8 **FOR EPE USING THE ECAPM?**

9 **A** Using the appropriate unadjusted beta in the ECAPM would produce a reasonable
10 return estimate. This can be accomplished by removing, or backing out, the adjustment
11 from *Value Line's* published beta.

12 Removing *Value Line's* beta adjustment will produce the original regression
13 beta estimate. Using this regression beta in the ECAPM will produce a more accurate
14 result than that offered by Ms. Nelson. As explained earlier, Ms. Nelson's proxy group
15 has an average *Value Line* beta of 0.87. By removing the adjustments that *Value Line*
16 made to produce the proxy group's average beta of 0.87, I have calculated the original
17 regression beta of 0.78.⁶⁰ Using the regression beta of 0.78 in the ECAPM model
18 shown above will produce an expected return estimate of approximately 10.0%.⁶¹

⁶⁰ Raw Beta = (VL Beta - 0.35) / 0.67, Raw Beta = (0.87-0.35)/0.67 = 0.78.

⁶¹ ECAPM = RF + 0.25 x MRP + 0.75 x MRP x Unadjusted Beta. ECAPM = 2.68% + 0.25 x (11.5% - 2.68%) + 0.75 x (11.50% - 2.68%) x 0.78 = 10.0%.

V.E. Nelson's Bond Yield Plus ("BYP") Risk Premium

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

A As shown on her Exhibit JEN-6, Ms. Nelson constructs a risk premium return on equity estimate based on the premise that equity risk premiums are inversely related to interest rates. She estimates the equity risk premium over the period January 1, 1980 through March 31, 2021. She then applies a regression formula to the current, projected 30-year Treasury bond yields of 2.31% and 2.88%, respectively, to produce equity risk premiums of 7.51% and 6.93%, respectively. She calculates a risk premium return on equity estimate of 9.81%.⁶²

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

A No. Ms. Nelson 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 risk of bond investments relative to equity investments, and not simply changes in interest rates.⁶³

⁶² Exhibit JEN-6.

⁶³ 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.

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

6 In today's marketplace, interest rate volatility is not as extreme as it was during
7 the 1980s.⁶⁴ Nevertheless, changes in the perceived risk of bond investments relative
8 to equity investments still drive changes in equity premiums and cannot be measured
9 simply by observing nominal interest rates. Changes in nominal interest rates are
10 heavily influenced by changes to inflation outlooks, which also change equity return
11 expectations. As such, the relevant factor needed to explain changes in equity risk
12 premiums is the relative changes between the risk of equity versus debt investments,
13 and not simply changes in interest rates.

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

18 **Q DO YOU BELIEVE THAT THE REGRESSION STUDY USED BY MS. NELSON IN**
19 **HER BYP DEMONSTRATES AN ACCURATE CAUSE AND EFFECT BETWEEN**
20 **INTEREST RATES AND EQUITY RISK PREMIUMS?**

21 **A** No. Because the returns on equity she uses are authorized by commissions, those
22 returns on equity are not directly adjusted by market forces. While I also use
23 commission-authorized returns as a proxy for market-required returns, of significance

⁶⁴ "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985, at 44.

1 is the simple regression analysis that tries to describe and gauge equity risk premiums
2 based on only changes in interest rates.

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

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

9 **A** Yes. Ms. Nelson's simplistic and incomplete notion that equity risk premiums change
10 only with changes to nominal interest rates should be rejected. Adding my high-end
11 average equity risk premium over Treasury bonds of 6.36% to her Treasury yields of
12 2.31% and 2.68%, produces a BYP no higher than 9.00%.

13 **V.F. Ms. Nelson's Consideration of Additional Risks**

14 **Q DID MS. NELSON INJECT CONSIDERATION OF ADDITIONAL BUSINESS RISKS**
15 **TO JUSTIFY HER RETURN ON EQUITY?**

16 **A** It appears so. Ms. Nelson believes that EPE is exposed to additional risks that should
17 be accounted for: (1) EPE's regulatory environment and its capital expenditure plan;
18 (2) The Company's nuclear generation operations; and (3) EPE's small size relative to
19 the proxy group companies.⁶⁵ Ms. Nelson believes that these additional risks should
20 be considered in determining EPE's return on equity. As discussed below, EPE's
21 relative risk is comparable to the risk of the utility companies included in the proxy
22 group.

⁶⁵ Nelson Direct Testimony at 50-61.

Q PLEASE EXPLAIN.

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

The average S&P credit rating for my proxy group of BBB+, as shown on my Exhibit MPG-3, is comparable to EPE's credit rating from Fitch of BBB. The relative risks discussed on pages 50-61 of Ms. Nelson's direct testimony are already incorporated in the credit ratings of the proxy group companies. Indeed, S&P and other credit rating agencies go to great lengths and detail in assessing a utility's business risk and financial risk in order to evaluate total investment risk. This total investment risk assessment of EPE, in comparison to a proxy group, is fully absorbed into the market's perception of EPE's risk. The use of my proxy group fully captures the investment risk of EPE.

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

1 investment-grade anchors, while the financial risk profile carries more
2 weight for speculative-grade anchors.⁶⁶

3 **V.F.1. Size Adjustment**

4 **Q PLEASE DESCRIBE MS. NELSON'S SIZE ADJUSTMENT.**

5 A Ms. Nelson establishes a hypothetical market capitalization of \$1,934.41 million for
6 EPE based on the Company's Texas rate base or \$2,471.15 for total Company rate
7 base, which she compares to the market capitalization of the utility companies included
8 in her proxy group. Ms. Nelson's size adjustment return on equity adder is based on
9 estimates made by Duff & Phelps' *Cost of Capital Navigator*. Duff & Phelps estimates
10 various size adjustments based on differentials in beta estimates tied to the size of a
11 company. Ms. Nelson determines that EPE falls in Duff & Phelps 6th Decile, which
12 warrants a size adjustment of 137 basis points. Similarly, on Exhibit JEN-7 of her direct
13 testimony she notes that the capitalization of the companies included in her proxy group
14 falls in the 3rd Decile, which warrants a size adjustment of 71 basis points. She
15 concluded that the appropriate size adjustment is the difference between these two
16 size premia of 66 basis points.⁶⁷

17 Ms. Nelson developed a similar analysis based on her hypothetical total
18 Company capitalization of \$2,471.15 million and concluded that an appropriate size
19 adjustment is approximately 38 basis points.⁶⁸

20 Ms. Nelson does not propose a specific size adjustment but she considers it in
21 determining the appropriate return for EPE.⁶⁹

⁶⁶ *Standard & Poor's RatingsDirect*: "Criteria/Corporates/General: Corporate Methodology," November 19, 2013.

⁶⁷ Nelson Direct Testimony at 60.

⁶⁸ *Id.*

⁶⁹ *Id.*

1 Q DO YOU FIND MS. NELSON'S SIZE ADJUSTMENT REASONABLE?

2 A No. There are several problems with this size adjustment. First, Ms. Nelson applied a
3 size adjustment without even considering the average capitalization of her proxy group
4 relative to the capitalization structure which supports EPE. EPE is a wholly-owned
5 subsidiary of Sun Jupiter Holdings LLC ("Sun Jupiter"), an affiliate of the Infrastructure
6 Investments Fund ("IIF"), a private investment vehicle advised by an infrastructure
7 investment group within J.P. Morgan Investment Management Inc. A return on equity
8 adder is not justified in the way performed by Ms. Nelson, because she has not
9 accurately measured the corporate structure which owns EPE. Importantly, as
10 discussed above, the size-specific risk is already incorporated in the Company's credit
11 rating and should be rejected.

12 **V.F.2. Capital Market Conditions**

13 Q DID MS. NELSON ALSO OFFER AN ASSESSMENT OF CURRENT MARKET
14 CONDITIONS IN SUPPORT OF HER RECOMMENDED RETURN ON EQUITY
15 RANGE?

16 A Yes. Ms. Nelson observes the market volatility levels as measured by the Chicago
17 Board of Exchange ("CBOE"), Implied Volatility Index ("VIX") and its impact on interest
18 rates and expected returns.⁷⁰ Specifically, Ms. Nelson also states that the market
19 volatility as measured by the VIX, which generally tracks broader market equity security
20 values, has increased relative to historical standards and it is expected to remain
21 elevated.⁷¹ She concludes that due to this increased volatility utility investors face
22 greater risks and require higher returns.

⁷⁰ *Id.* at 17-28.

⁷¹ *Id.* at 18-20.

1 **Q IS THE VIX INDEX ADEQUATE TO SUPPORT THE NOTION THAT THE MARKET**
2 **PERCEPTION OF THE INVESTMENT RISK OF EPE OR UTILITIES GENERALLY IS**
3 **INCREASING?**

4 **A No.** First, the VIX is a broader-based market index of stock price volatility, and not that
5 of subgroups within the market generally, and certainly not applicable to the utility
6 subsector. Utility securities are generally regarded as defensive stocks, and the market
7 generally flocks to low-risk sectors during periods of broader economic distress. The
8 VIX index may indicate greater risk in the overall market but that does not indicate a
9 similar change in investment risk for lower-risk regulated utility companies. Second,
10 the VIX is a measure of 30-day expected volatility, which is a relatively short-term
11 estimate and it does not represent the volatility level effective during the period rates
12 determined in this regulatory proceeding.

13 **Q DO YOU BELIEVE THAT MS. NELSON'S USE OF THESE MARKET SENTIMENTS**
14 **SUPPORTS HER FINDINGS THAT EPE'S MARKET COST OF EQUITY IS**
15 **CURRENTLY 10.30%?**

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

21 **Q WHAT IS THE MARKET SENTIMENT FOR UTILITY INVESTMENTS?**

22 **A Again,** the current market sentiment toward utility investments, rather than just general
23 corporate investments, is that the market is placing high value on utility securities,
24 recognizing their low risk and stable characteristics. This is illustrated by current utility

1 bond yield spreads as discussed at length previously. The current strong utility bond
2 valuation is an indication of the market's sentiment that utility bonds are lower risk and
3 are generally regarded as a defensive stocks by the investment industry.

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

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

13 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

14 **A** Yes, it does.

Qualifications of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

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

4 **Q PLEASE STATE YOUR OCCUPATION.**

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

8 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**
9 **EXPERIENCE.**

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

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

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

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

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

20 At BAI, I also have extensive experience working with large energy users to
21 distribute and critically evaluate responses to requests for proposals ("RFPs") for
22 electric, steam, and gas energy supply from competitive energy suppliers. These
23 analyses include the evaluation of gas supply and delivery charges, cogeneration
24 and/or combined cycle unit feasibility studies, and the evaluation of third-party
25 asset/supply management agreements. I have participated in rate cases on rate

1 design and class cost of service for electric, natural gas, water and wastewater utilities.
2 I have also analyzed commodity pricing indices and forward pricing methods for third
3 party supply agreements, and have also conducted regional electric market price
4 forecasts.

5 In addition to our main office in St. Louis, the firm also has branch offices in
6 Phoenix, Arizona and Corpus Christi, Texas.

7 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

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

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

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

423240

El Paso Electric Company

Rate of Return

(December 31, 2020)

<u>Line</u>	<u>Description</u>	<u>Weight</u> (1)	<u>Cost</u> (2)	Weighted <u>Cost</u> (3)
1	Long-Term Debt	49.00%	5.58%	2.73%
2	Common Equity	<u>51.00%</u>	9.20%	<u>4.69%</u>
3	Total	100.00%		7.42%

Source:
Schedule K-1.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

		Price to Earnings (P/E) Ratio ¹																				
Line	Company	20-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)	2005 (18)	2004 (19)	2003 (20)	2002 (21)
		Average (1)	2021 ² (2)																			
1	ALLETE	18.37	21.90	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	22.00	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.	16.60	22.20	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	14.94	18.30	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.	27.42	29.70	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.	18.40	19.80	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	17.75	17.10	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	16.17	17.40	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.	17.98	22.00	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	15.93	16.70	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	20.45	19.30	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	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	17.67	20.20	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	15.17	13.90	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	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.	13.92	17.70	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	18.45	22.60	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.	20.85	17.20	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.	14.73	13.10	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.	18.08	14.60	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.	19.21	20.00	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	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.	18.54	21.30	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.	16.91	20.70	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	MGE Energy	19.90	27.30	28.41	28.36	25.11	29.36	24.90	20.28	17.19	17.01	17.23	15.82	14.98	15.14	14.22	15.01	15.88	22.40	17.98	17.55	15.96
26	NextEra Energy, Inc.	18.84	40.20	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
27	NorthWestern Corp	17.13	17.10	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
28	OGE Energy	15.28	15.70	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
29	Otter Tail Corp.	23.57	18.50	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
30	PG&E Corp.	16.79	N/A	N/A	N/A	N/A	18.28	21.13	26.40	15.00	23.67	20.70	15.46	15.80	13.01	12.08	16.85	14.84	15.37	13.81	9.50	N/A
31	Pinnacle West Capital	15.94	16.40	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
32	PNM Resources	18.62	21.60	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
33	Portland General	17.38	17.50	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
34	PPL Corp.	14.55	23.90	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
35	Public Serv. Enterprise	14.06	19.20	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
36	SCANA Corp.	13.96	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
37	Sempra Energy	15.66	16.40	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
38	Southern Co.	16.04	19.40	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
39	Vectren Corp.	17.05	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
40	WEC Energy Group	17.30	23.20	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
41	Westar Energy	15.58	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
42	Xcel Energy Inc.	17.81	23.00	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
43	Average	17.15	20.19	21.45	21.09	20.34	19.81	18.97	18.00	17.39	16.38	15.69	15.30	14.28	13.56	15.18	17.74	16.47	16.52	16.57	13.70	14.31
44	Median	16.09	19.50	20.43	21.22	19.28	19.97	18.80	17.71	16.54	16.27	15.04	14.31	12.91	12.82	14.21	16.41	15.88	15.92	15.29	13.60	13.47

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

		Market Price to Cash Flow (MP/CF) Ratio ¹																				
Line	Company	20-Year																				
		Average (1)	2021 ^{2/a} (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)	2005 (18)	2004 (19)	2003 (20)	2002 (21)
1	ALLETE	9.41	8.77	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	10.25	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.	7.30	9.63	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	7.69	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.	9.87	10.31	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.	6.85	7.94	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	7.85	8.46	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	5.25	6.28	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.	6.25	9.02	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	8.24	7.70	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	9.89	9.85	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	6.58	8.59	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	7.55	6.58	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	5.91	5.49	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	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	5.60	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	7.39	10.74	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.	7.37	7.37	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.	5.91	4.16	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.	6.86	8.89	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.	8.38	8.67	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	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	8.32	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.	8.67	11.33	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	MGE Energy	11.69	14.34	14.90	15.58	15.04	17.33	15.66	12.53	11.42	11.20	10.77	9.48	9.05	8.40	8.42	9.23	9.30	11.73	11.04	10.20	8.09
26	NextEra Energy, Inc.	10.43	52.66	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
27	NorthWestern Corp	7.84	8.61	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
28	OGE Energy	7.92	7.54	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
29	Otter Tail Corp.	9.46	9.55	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
30	PG&E Corp.	5.55	N/A	N/A	N/A	- 5.65	7.09	7.26	7.24	5.65	6.84	5.86	5.32	5.42	4.71	4.61	5.84	5.28	5.07	5.13	4.05	14.69
31	Pinnacle West Capital	6.28	6.89	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
32	PNM Resources	6.90	7.94	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
33	Portland General	5.92	6.29	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
34	PPL Corp.	7.63	10.56	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
35	Public Serv. Enterprise	7.55	7.69	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
36	SCANA Corp.	7.09	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
37	Sempra Energy	8.18	9.58	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
38	Southern Co.	8.17	7.96	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
39	Vectren Corp.	7.08	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
40	WEC Energy Group	9.07	12.11	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
41	Westar Energy	6.91	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
42	Xcel Energy Inc.	6.93	9.16	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
43	Average	7.56	9.79	9.26	9.78	8.64	9.36	8.65	8.05	7.85	7.39	6.98	6.53	6.00	5.59	6.95	7.72	7.12	7.13	6.77	5.70	5.85
44	Median	7.25	8.60	8.56	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	5.52

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Note:

^a Based on the average of the high and low price and the projected Cash Flow per share.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

		Market Price to Book Value (MP/BV) Ratio ¹																	
Line	Company	17-Year																	
		Average (1)	2021 ^{2b} (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)	2005 (18)
1	ALLETE	1.59	1.47	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	1.77	2.15	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.	1.55	2.22	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	1.89	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.	0.92	0.93	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.	1.34	1.43	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	1.51	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	1.85	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.	2.15	2.87	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	1.42	1.43	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	2.39	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	1.53	1.96	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	1.23	1.36	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	1.66	1.51	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	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	1.69	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	1.88	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.	1.47	1.47	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.	2.11	1.18	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.	2.08	3.04	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.	1.46	1.38	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	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	1.79	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	1.81	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	MGE Energy	2.14	2.46	2.54	2.88	2.59	2.88	2.60	2.10	2.10	2.06	1.92	1.75	1.65	1.54	1.62	1.75	1.83	2.09
26	NextEra Energy, Inc.	2.71	11.93	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
27	NorthWestern Corp	1.46	1.46	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
28	OGE Energy	1.84	1.72	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
29	Otter Tail Corp.	1.85	2.02	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
30	PG&E Corp.	1.60	N/A	N/A	N/A	1.70	1.71	1.69	1.57	1.39	1.38	1.41	1.46	1.56	1.41	1.50	1.94	1.83	1.84
31	Pinnacle West Capital	1.43	1.54	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
32	PNM Resources	1.33	1.95	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
33	Portland General	1.35	1.53	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
34	PPL Corp.	2.11	2.31	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
35	Public Serv. Enterprise	1.88	1.51	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
36	SCANA Corp.	1.51	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
37	Sempra Energy	1.80	1.63	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
38	Southern Co.	2.07	2.11	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
39	Vectren Corp.	1.83	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
40	WEC Energy Group	2.02	2.63	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
41	Westar Energy	1.37	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
42	Xcel Energy Inc.	1.69	2.29	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
43	Average	1.74	2.12	1.96	2.10	1.88	2.00	1.85	1.67	1.68	1.60	1.51	1.43	1.35	1.25	1.63	1.90	1.78	1.80
44	Median	1.71	1.80	1.84	2.06	1.83	1.91	1.74	1.57	1.53	1.49	1.47	1.37	1.31	1.15	1.48	1.71	1.71	1.73

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Notes:

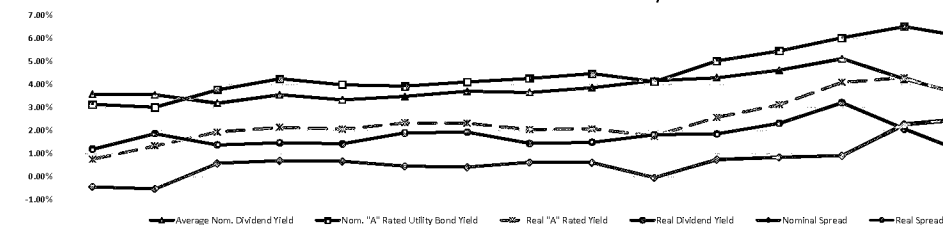
^b Based on the average of the high and low price and the projected Book Value per share.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

Line	Company	Dividend Yield ^d																
		16-Year																
		Average (1)	2021 ^{2a} (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
1	ALLETE	3.94%	3.83%	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%	3.08%	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.	4.25%	2.64%	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%	3.63%	3.28%	3.10%	3.60%	3.42%	3.54%	3.80%	3.83%	4.23%	4.58%	4.96%	4.90%	5.05%	4.20%	3.40%	4.06%
5	Avangrid, Inc.	3.76%	3.79%	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%	3.94%	4.03%	3.40%	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%	3.54%	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	4.35%	2.91%	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%	2.92%	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	4.37%	3.95%	3.67%	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%	3.39%	4.31%	4.70%	4.72%	3.89%	3.82%	3.66%	3.43%	3.79%	4.06%	4.13%	4.41%	5.20%	3.77%	3.32%	3.00%
12	DTE Energy	4.07%	3.38%	3.57%	3.07%	3.34%	3.13%	3.34%	3.53%	3.54%	3.84%	4.19%	4.68%	4.75%	6.29%	5.24%	4.36%	4.86%
13	Duke Energy	4.71%	4.70%	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	3.24%	4.56%	4.29%	3.73%	3.84%	2.87%	2.81%	2.83%	2.82%	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	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%	3.94%	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	3.25%	3.01%	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	Energy, Inc.	3.70%	3.70%	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.	3.85%	3.83%	3.62%	3.08%	3.32%	3.51%	3.75%	3.88%	3.69%	4.69%	5.73%	4.96%	4.95%	4.25%	2.78%	2.48%	2.83%
20	FirstEnergy Corp.	4.31%	3.69%	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.	3.69%	3.97%	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	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%	3.44%	3.40%	3.02%	3.54%	3.65%	3.99%	4.09%	4.72%	4.70%	4.70%	5.04%	5.51%	6.89%	5.00%	5.18%	4.59%
24	IDACORP, Inc.	3.18%	3.04%	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	MGE Energy	3.06%	2.19%	2.10%	1.94%	2.16%	1.99%	2.23%	2.78%	2.78%	2.91%	3.25%	3.63%	3.98%	4.36%	4.24%	4.14%	4.25%
26	NorEdra Energy, Inc.	2.87%	0.67%	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
27	NorthWestern Corp.	4.07%	4.00%	4.02%	3.20%	3.86%	3.52%	3.48%	3.61%	3.30%	3.66%	4.17%	4.51%	4.93%	5.75%	5.38%	4.00%	3.65%
28	OGE Energy	3.77%	5.12%	4.65%	3.54%	3.95%	3.81%	3.87%	3.51%	2.63%	2.48%	2.94%	3.06%	3.68%	4.96%	4.52%	3.77%	3.99%
29	Otter Tail Corp.	4.07%	3.51%	3.45%	2.74%	2.92%	3.12%	3.87%	4.33%	4.14%	4.11%	5.21%	5.57%	5.68%	5.89%	3.63%	3.46%	3.92%
30	PG&E Corp.	3.70%	N/A	N/A	N/A	N/A	2.42%	3.22%	3.45%	3.96%	4.20%	4.25%	4.24%	4.08%	4.26%	4.01%	3.07%	3.22%
31	Pinnacle West Capital	4.47%	4.32%	3.97%	3.29%	3.55%	3.16%	3.46%	3.89%	4.09%	4.79%	5.32%	4.81%	5.43%	6.76%	6.17%	4.75%	4.67%
32	PNM Resources	3.19%	2.75%	2.80%	2.45%	2.79%	2.53%	2.69%	2.90%	2.79%	2.96%	2.96%	3.19%	4.09%	4.76%	4.85%	3.36%	3.21%
33	Portland General	3.67%	3.68%	3.47%	2.85%	3.27%	2.92%	3.06%	3.27%	3.34%	3.67%	4.11%	4.37%	5.20%	5.68%	4.28%	3.34%	2.54%
34	PPL Corp.	4.63%	6.05%	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%
35	Public Serv. Enterprise	3.51%	4.21%	3.64%	3.19%	3.48%	3.74%	3.78%	3.91%	3.92%	4.25%	4.35%	4.55%	4.24%	4.30%	3.26%	2.73%	3.47%
36	SCANA Corp.	4.37%	N/A	N/A	N/A	N/A	4.03%	3.29%	3.90%	4.06%	4.15%	4.25%	4.78%	4.83%	5.67%	6.82%	4.29%	4.21%
37	Sempra Energy	2.98%	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%
38	Southern Co.	4.68%	4.63%	4.36%	4.41%	5.27%	4.63%	4.42%	4.78%	4.69%	4.61%	4.29%	4.63%	5.13%	5.52%	4.59%	4.39%	4.52%
39	Vectren Corp.	4.38%	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%
40	WEC Energy Group	3.02%	3.00%	2.68%	2.81%	3.38%	3.31%	3.55%	3.49%	3.40%	3.40%	3.24%	3.35%	2.97%	3.16%	2.14%	2.18%	2.16%
41	Westar Energy	4.37%	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%	2.89%
42	Xcel Energy Inc.	3.76%	2.81%	2.58%	2.75%	3.25%	3.10%	3.33%	3.69%	3.83%	3.86%	4.20%	4.54%	5.14%	4.70%	4.05%	4.40%	4.40%
43	Average	3.86%	3.69%	3.56%	3.19%	3.56%	3.34%	3.49%	3.71%	3.66%	3.87%	4.19%	4.30%	4.63%	5.13%	4.24%	3.53%	3.72%
44	Median	3.68%	3.65%	3.57%	3.06%	3.36%	3.15%	3.43%	3.71%	3.76%	3.85%	4.18%	4.42%	4.76%	5.17%	4.22%	3.43%	3.62%
45	20-Yr Treasury Yields ^g	3.18%	2.00%	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%
46	20-Yr TIPS ^h	1.05%	-0.36%	-0.30%	0.60%	0.94%	0.75%	0.86%	0.78%	0.87%	0.75%	0.21%	1.19%	1.73%	2.21%	2.19%	2.36%	2.31%
47	Implied Inflation ⁱ	2.11%	2.37%	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%
48	Real Dividend Yield^d	1.71%	1.19%	1.86%	1.37%	1.47%	1.42%	1.90%	1.93%	1.44%	1.49%	1.81%	1.88%	2.32%	3.22%	2.07%	1.01%	1.07%
A-Rated Utility																		
49	Nominal "A" Rated Yield ^d	4.64%	3.14%	3.02%	3.77%	4.25%	4.00%	3.93%	4.12%	4.28%	4.48%	4.13%	5.04%	5.49%	6.04%	6.53%	6.07%	6.07%
50	Real "A" Rated Yield	2.49%	0.76%	1.33%	1.94%	2.14%	2.07%	2.34%	2.33%	2.04%	2.06%	1.78%	2.68%	3.16%	4.11%	4.31%	3.49%	3.36%
Baa-Rated Utility																		
51	Nominal "Baa" Rated Yield	5.18%	3.40%	3.39%	4.19%	4.67%	4.38%	4.67%	5.03%	4.80%	4.96%	4.83%	5.57%	5.96%	7.06%	7.25%	6.33%	6.32%
52	Real "Baa" Rated Yield	3.01%	1.01%	1.70%	2.36%	2.56%	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)																		
53	Nominal Spread ^d	0.79%	-0.45%	-0.54%	0.58%	0.69%	0.66%	0.44%	0.40%	0.61%	0.81%	-0.05%	0.74%	0.84%	0.91%	2.29%	2.54%	2.36%
54	Real Spread ^d	0.77%	-0.44%	-0.53%	0.57%	0.68%	0.65%	0.44%	0.40%	0.60%	0.59%	-0.05%	0.72%	0.82%	0.89%	2.24%	2.48%	2.29%
Spreads (Baa-Rated Utility Bond - Stock)																		
55	Nominal Spread ^d	1.32%	-0.19%	-0.16%	1.00%	1.11%	1.04%	1.19%	1.31%	1.14%	1.11%	0.65%	1.26%	1.34%	1.92%	3.00%	2.80%	2.60%
56	Real Spread ^d	1.29%	-0.18%	-0.16%	0.98%	1.09%	1.02%	1.17%	1.29%	1.11%	1.09%	0.63%	1.23%	1.31%	1.89%	2.94%	2.73%	2.53%
Spreads (Treasury Bond - Stock)																		
57	Nominal ^f	-0.67%	-1.59%	-2.20%	-0.79%	-0.54%	-0.69%	-1.26%	-1.17%	-0.99%	-0.76%	-1.64%	-0.68%	-0.60%	-1.02%	0.12%	1.38%	1.27%
58	Real ^f	-0.66%	-1.56%	-2.17%	-0.77%	-0.53%	-0.68%	-1.24%	-1.15%	-0.98%	-0.73%	-1.60%	-0.67%	-0.66%	-1.01%	0.12%	1.34%	1.24%

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



Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

³ St. Louis Federal Reserve: Economic Research,

El Paso Electric Company

Electric Utilities (Valuation Metrics)

		Dividend per Share ¹																
		16-Year																
Line	Company	Average	2021 ²	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)
1	ALLETE	1.98	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	1.61	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	2.20	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	3.00	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	1.74	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	1.69	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	2.29	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	0.86	0.65	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	1.74	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	3.10	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	2.52	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	2.87	4.41	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	3.90	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	2.68	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	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	Energy Corp.	3.27	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	2.41	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.	2.17	2.17	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	1.53	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	1.53	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	2.08	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	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	1.36	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	2.89	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	MGE Energy	1.14	1.52	1.45	1.38	1.32	1.26	1.21	1.16	1.11	1.07	1.04	1.01	0.99	0.97	0.96	0.94	0.93
26	NextEra Energy, Inc.	0.79	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
27	NorthWestern Corp	1.75	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
28	OGE Energy	1.03	1.64	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
29	Otter Tail Corp.	1.26	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
30	PG&E Corp.	1.70	N/A	N/A	N/A	N/A	1.55	1.93	1.82	1.82	1.82	1.82	1.82	1.82	1.68	1.56	1.44	1.32
31	Pinnacle West Capital	2.50	3.42	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
32	PNM Resources	0.84	1.33	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
33	Portland General	1.19	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
34	PPL Corp.	1.47	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
35	Public Serv. Enterprise	1.54	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
36	SCANA Corp.	2.00	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
37	Sempra Energy	2.60	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
38	Southern Co.	2.06	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
39	Vectren Corp.	1.42	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
40	WEC Energy Group	1.49	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
41	Westar Energy	1.30	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
42	Xcel Energy Inc.	1.24	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
43	Average	1.69	2.29	2.23	2.14	2.03	1.90	1.79	1.70	1.62	1.56	1.55	1.47	1.43	1.39	1.39	1.32	1.24
44	Industry Average Growth	4.17%	2.68%	4.36%	5.29%	6.91%	5.79%	5.44%	5.20%	3.38%	0.98%	5.59%	2.36%	3.30%	-0.25%	4.98%	6.51%	

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Notes:

PG&E is excluded from 2017, 2018 and 2019 average calculations due to their Dividend Suspension.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

Line	Company	Earnings per Share ¹																
		16-Year																2006 (17)
		Average (1)	2021 ² (2)	(3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)		
1	ALLETE	2.90	3.15	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	2.60	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	3.80	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	3.47	4.70	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.	1.80	2.05	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.	1.79	2.15	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	2.56	3.90	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	1.24	1.45	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.	1.71	2.85	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	3.79	4.60	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	2.88	3.95	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	4.55	7.05	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	3.94	5.15	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	3.38	4.20	1.72	3.98	-1.28	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	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.	6.08	5.95	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	2.52	3.75	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	Eversource, Inc.	3.60	3.60	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.	2.95	2.45	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.	2.57	2.45	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.	1.93	2.75	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	-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.	1.57	2.00	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	4.80	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	MGE Energy	2.03	2.75	2.60	2.51	2.43	2.20	2.18	2.06	2.32	2.16	1.86	1.76	1.67	1.47	1.59	1.51	1.37
26	NextEra Energy, Inc.	1.39	2.10	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
27	NorthWestern Corp	2.63	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
28	OGE Energy	1.75	2.20	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
29	Otter Tail Corp.	1.52	2.60	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
30	PG&E Corp.	1.49	N/A	N/A	N/A	-13.25	3.50	2.83	2.00	3.06	1.83	2.07	2.78	2.82	3.03	3.22	2.78	2.76
31	Pinnacle West Capital	3.68	5.10	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
32	PNM Resources	1.43	2.25	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
33	Portland General	1.95	2.65	1.72	2.39	2.37	2.29	2.16	2.04	2.18	1.77	1.86	1.95	1.66	1.33	1.39	2.33	1.14
34	PPL Corp.	2.27	1.15	2.04	2.38	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
35	Public Serv. Enterprise	2.93	3.25	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
36	SCANA Corp.	3.30	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
37	Sempra Energy	4.98	8.15	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
38	Southern Co.	2.73	3.40	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
39	Vectren Corp.	1.94	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
40	WEC Energy Group	2.54	4.05	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
41	Westar Energy	1.96	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
42	Xcel Energy Inc.	2.01	2.95	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
43	Average	2.65	3.49	3.16	3.28	2.87	2.90	2.81	2.67	2.66	2.50	2.43	2.44	2.36	2.19	2.21	2.26	2.11
44	Industry Average Growth	3.51%	10.32%	-3.54%	14.00%	-0.78%	3.24%	5.25%	0.08%	6.36%	3.26%	-0.70%	3.81%	7.71%	-1.07%	-2.17%	7.14%	

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Notes:

PG&E is excluded from 2017, 2018, and 2019 average calculations due to their Dividend Suspension.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

Line	Company	Cash Flow / Capital Spending				3 - 5 yr
		2019	2020	2021	2022	Projection
		(1)	(2)	(3)	(4)	(5)
1	ALLETE	0.63x	0.74x	0.80x	2.24x	2.22x
2	Alliant Energy	0.73x	0.82x	0.97x	0.99x	1.06x
3	Ameren Corp.	0.79x	0.51x	0.59x	0.78x	0.84x
4	American Electric Power	0.75x	0.74x	0.69x	0.70x	0.91x
5	Avangrid, Inc.	0.70x	0.56x	0.62x	0.56x	0.58x
6	Avista Corp.	0.89x	0.85x	0.87x	0.94x	1.13x
7	Black Hills	0.51x	0.72x	0.76x	0.86x	1.03x
8	CenterPoint Energy	0.83x	0.88x	0.62x	0.75x	0.89x
9	CMS Energy Corp.	0.79x	0.82x	0.77x	0.69x	1.00x
10	Consol. Edison	0.79x	0.82x	0.89x	0.89x	1.00x
11	Dominion Resources	0.81x	1.00x	0.89x	0.89x	0.77x
12	DTE Energy	0.83x	0.67x	0.70x	1.02x	1.43x
13	Duke Energy	0.78x	0.86x	0.93x	0.80x	1.00x
14	Edison Int'l	0.69x	0.67x	0.74x	0.81x	0.93x
15	El Paso Electric	0.96x	1.00x	0.83x	N/A	N/A
16	Entergy Corp.	0.79x	0.81x	1.05x	1.07x	1.12x
17	Eversource Energy	0.78x	0.95x	0.74x	0.77x	1.06x
18	Evergy, Inc.	1.34x	1.06x	0.96x	1.01x	1.16x
19	Exelon Corp.	1.18x	1.30x	1.32x	1.33x	1.47x
20	FirstEnergy Corp.	0.74x	0.96x	0.91x	0.89x	1.09x
21	Fortis Inc.	0.68x	0.60x	0.74x	0.78x	0.91x
22	Hawaiian Elec.	1.12x	1.10x	1.42x	1.28x	1.28x
23	IDACORP, Inc.	1.25x	1.25x	1.16x	1.14x	1.00x
24	MGE Energy	0.97x	0.73x	0.87x	1.04x	1.28x
25	NextEra Energy, Inc.	0.67x	0.58x	0.69x	0.66x	0.67x
26	NorthWestern Corp	1.07x	0.98x	0.82x	0.86x	1.14x
27	OGE Energy	1.26x	1.43x	1.13x	1.17x	1.29x
28	Otter Tail Corp.	0.80x	0.45x	1.42x	0.89x	2.18x
29	Pinnacle West Capital	0.98x	0.98x	0.85x	0.89x	1.21x
30	PNM Resources	0.72x	0.59x	0.51x	0.73x	1.03x
31	Portland General	0.99x	0.75x	0.97x	1.22x	1.44x
32	PPL Corp.	0.92x	1.06x	1.12x	1.39x	1.86x
33	Public Serv. Enterprise	1.07x	1.00x	1.05x	0.99x	1.11x
34	Sempra Energy	0.66x	0.92x	0.78x	0.92x	1.37x
35	Southern Co.	0.88x	1.01x	0.93x	1.13x	1.42x
36	WEC Energy Group	0.91x	0.70x	0.75x	0.82x	1.14x
37	Xcel Energy Inc.	0.69x	0.99x	0.86x	0.87x	1.06x
38	Average	0.86x	0.86x	0.88x	0.97x	1.17x
39	Median	0.80x	0.85x	0.86x	0.89x	1.10x

Source:

The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Notes:

Based on the projected Cash Flow per share and Capital Spending per share.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

Line	Company	Percent Dividends to Book Value ¹																
		16-Year																
		Average	2021 ^{2,a}	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)
1	ALLETE	5.95%	5.64%	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	6.32%	6.61%	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%	5.86%	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	6.29%	6.87%	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.	3.04%	3.52%	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%	5.61%	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%	5.34%	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	9.89%	5.38%	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.	6.59%	8.38%	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	6.06%	5.63%	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%	8.09%	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	5.99%	6.63%	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%	6.38%	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	5.23%	6.87%	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	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%	6.67%	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%	5.67%	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.	5.38%	5.43%	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.	7.22%	4.51%	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.	8.85%	11.22%	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%	5.46%	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	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.	7.22%	6.17%	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.	4.60%	5.49%	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%	4.46%	4.66%
25	MGE Energy	6.16%	5.38%	5.22%	5.59%	5.60%	5.61%	5.79%	5.82%	5.84%	6.01%	6.22%	6.36%	6.56%	6.72%	6.87%	7.24%	7.77%
26	NextEra Energy, Inc.	6.48%	8.02%	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%
27	NorthWestern Corp	5.85%	5.84%	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%
28	OGE Energy	6.83%	8.79%	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%
29	Otter Tail Corp.	7.22%	7.09%	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%
30	PG&E Corp.	4.91%	N/A	N/A	0.00%	0.00%	4.15%	5.44%	5.40%	5.50%	5.80%	6.00%	6.20%	6.38%	6.03%	6.01%	5.96%	5.88%
31	Pinnacle West Capital	6.20%	6.63%	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%
32	PNM Resources	3.92%	5.36%	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%
33	Portland General	4.79%	5.65%	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%
34	PPL Corp.	9.28%	13.95%	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%
35	Public Serv. Enterprise	6.84%	6.36%	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%
36	SCANA Corp.	6.44%	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%
37	Sempra Energy	5.32%	5.52%	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%
38	Southern Co.	9.54%	9.79%	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%
39	Vectren Corp.	7.71%	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%
40	WEC Energy Group	6.20%	7.89%	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%
41	Westar Energy	5.71%	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%
42	Xcel Energy Inc.	6.15%	6.43%	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%
43	Average	6.31%	6.67%	6.65%	6.39%	6.51%	6.67%	6.44%	6.12%	6.07%	6.10%	6.28%	6.11%	6.08%	6.13%	6.36%	6.28%	6.10%
44	Median	6.14%	6.26%	6.18%	6.29%	6.22%	6.23%	5.83%	5.81%	5.83%	5.82%	5.99%	6.09%	6.02%	6.01%	6.21%	6.21%	6.19%

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

³ Based on the projected 2019 Dividend Declared per share and Book Value per share, published in The Value Line Investment Survey, January 24, February 14, and March 13, 2020.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

		Dividends to Earnings Ratio ¹																
Line	Company	16-Year																
		Average (1)	2021 ^{2,b} (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
1	ALLETE	0.69	0.80	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	0.62	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	0.56	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	0.64	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	0.86	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	0.79	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	0.58	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	0.73	0.45	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.	0.56	0.61	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	0.67	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	0.86	0.64	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	0.65	0.63	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	0.76	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	0.34	0.64	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	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	0.65	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	0.64	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.	0.60	0.60	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.	0.58	0.62	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	0.64	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	0.76	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	-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.	0.85	0.68	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	0.60	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	MGE Energy	0.57	0.55	0.56	0.55	0.54	0.57	0.56	0.56	0.48	0.50	0.56	0.57	0.60	0.66	0.60	0.62	0.68
26	NextEra Energy, Inc.	0.55	0.67	0.64	0.66	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
27	NorthWestern Corp	0.68	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
28	OGE Energy	0.58	0.75	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
29	Otter Tail Corp.	1.09	0.60	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
30	PG&E Corp.	0.65	N/A	N/A	N/A	N/A	0.44	0.68	0.91	0.59	0.99	0.88	0.65	0.65	0.55	0.48	0.52	0.48
31	Pinnacle West Capital	0.70	0.67	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
32	PNM Resources	0.90	0.59	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
33	Portland General	0.62	0.64	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
34	PPL Corp.	0.69	1.44	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
35	Public Serv. Enterprise	0.53	0.63	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
36	SCANA Corp.	0.61	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
37	Sempra Energy	0.51	0.54	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
38	Southern Co.	0.75	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
39	Vectren Corp.	0.75	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
40	WEC Energy Group	0.55	0.67	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
41	Westar Energy	0.68	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
42	Xcel Energy Inc.	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
43	Average	0.65	0.68	0.75	0.66	0.64	0.18	0.65	0.64	0.64	0.63	0.66	0.67	0.68	0.70	0.95	0.61	0.61
44	Median	0.63	0.64	0.67	0.64	0.65	0.63	0.64	0.63	0.60	0.61	0.63	0.62	0.62	0.66	0.60	0.59	0.56

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Note:

^b Based on the projected 2019 Dividends Declared per share and Earnings per share, published in The Value Line Investment Survey, January 24, February 14, and March 13, 2020.

El Paso Electric Company

Electric Utilities (Valuation Metrics)

Line	Company	Cash Flow to Capital Spending Ratio ¹																
		16-Year Average (1)	2021 ^{2/c} (2)	2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
1	ALLETE	0.80	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	0.95	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	0.62	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	0.81	0.81	0.75	0.88	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	0.56	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	0.88	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	0.61	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	0.73	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	0.79	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	0.83	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	0.73	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	0.74	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	0.85	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 Intl	0.74	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	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	0.74	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	0.80	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	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	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	0.83	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	0.65	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	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	1.27	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	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	MGE Energy	1.08	0.82	0.82	0.97	0.66	1.19	1.44	1.60	1.31	0.96	1.05	1.56	1.57	1.13	0.87	0.59	0.80
26	NextEra Energy, Inc.	0.62	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
27	NorthWestern Corp	1.04	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
28	OGE Energy	0.91	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
29	Otter Tail Corp.	0.84	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
30	PG&E Corp.	0.58	N/A	0.28	- 0.70	- 0.58	0.82	0.73	0.69	0.80	0.56	0.68	0.83	0.85	0.78	0.84	1.02	1.12
31	Pinnacle West Capital	0.95	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
32	PNM Resources	0.71	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
33	Portland General	0.84	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
34	PPL Corp.	0.96	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
35	Public Serv. Enterprise	1.12	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
36	SCANA Corp.	0.86	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
37	Sempra Energy	0.81	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
38	Southern Co.	0.89	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
39	Vectren Corp.	1.00	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
40	WEC Energy Group	0.98	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
41	Westar Energy	0.72	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
42	Xcel Energy Inc.	0.75	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
43	Average	0.88	0.83	0.80	0.84	0.85	0.89	0.88	0.86	0.87	0.88	0.88	0.96	0.98	0.86	0.80	0.88	1.05
44	Median	0.83	0.81	0.78	0.83	0.83	0.84	0.84	0.83	0.82	0.86	0.87	0.96	0.90	0.80	0.80	0.82	1.00

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, June 11, July 23, and August 13, 2021.

Notes:

^c Based on the projected Cash Flow per share and Capital Spending per share

El Paso Electric Company

Natural Gas Utilities (Valuation Metrics)

Line	Company	Price to Earnings (P/E) Ratio ¹																
		16-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
		Average (1)	2021 ² (2)															
1	Atmos Energy	17.34	18.90	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	18.82	25.60	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	17.41	19.40	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.	19.78	18.20	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	21.16	21.30	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.	21.67	19.50	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	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	15.30	16.80	21.30	20.61	22.21	21.64	19.35	17.86	15.76	15.00	15.89	13.97	12.20	20.27	17.26	15.94
9	Spire Inc.	18.68	14.60	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.	15.84	14.40	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	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	18.37	18.15	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	17.47	18.55	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

Line	Company	Market Price to Cash Flow (MP/CF) Ratio ¹																
		16-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
		Average (1)	2021 ^{2a} (2)															
14	Atmos Energy	9.05	11.09	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	10.10	13.08	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	11.98	11.19	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.	7.85	7.57	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	8.49	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.	10.67	9.59	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.	10.52	8.47	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	6.40	6.21	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	7.54	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.	7.91	7.51	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	12.82	11.36	9.59	8.46	9.83	9.03	9.52	8.34	7.17	7.68	8.39	7.81
25	Average	9.57	9.07	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	8.57	8.48	10.47	12.85	11.08	12.11	11.10	9.46	8.84	8.66	8.31	7.80	7.24	7.71	7.76	8.42	7.82

Line	Company	Market Price to Book Value (MP/BV) Ratio ¹																
		16-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
		Average (1)	2021 ^{2b} (2)															
27	Atmos Energy	1.58	1.53	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	2.02	2.64	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	2.24	1.90	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	1.81	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	1.45	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.	1.70	1.67	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.	2.04	1.37	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	1.31	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.	1.55	1.26	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.	2.05	1.89	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	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	1.81	1.68	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	1.60	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 The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, May 28, 2021.

Notes:

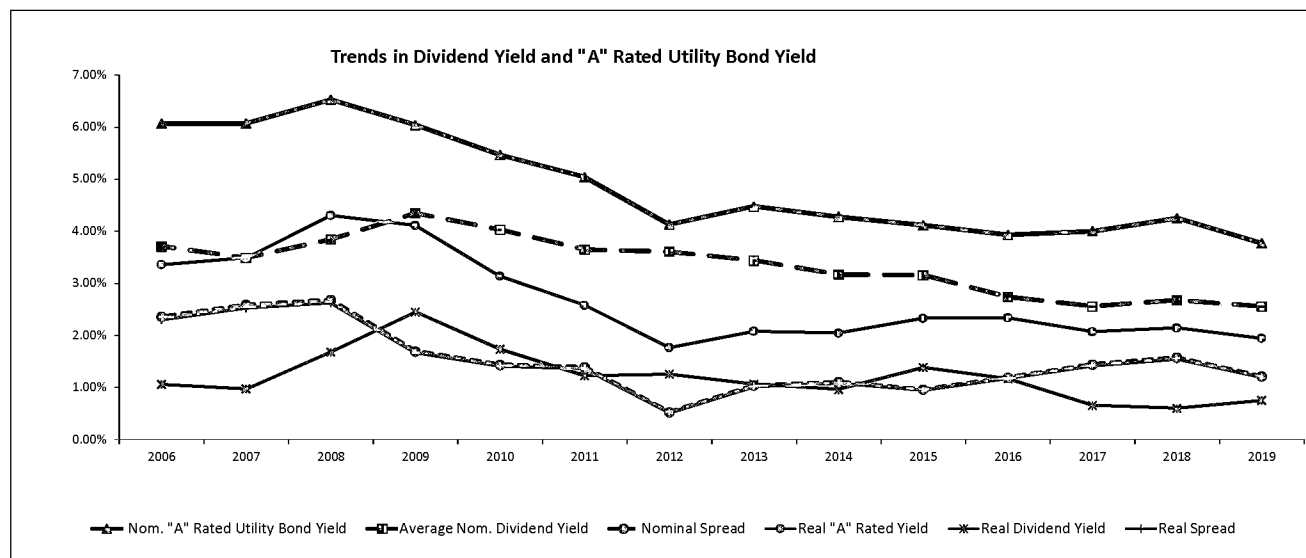
^a Based on the average of the high and low price for year and the projected Cash Flow per share, published in The Value Line Investment Survey.

^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.

El Paso Electric Company

Natural Gas Utilities (Valuation Metrics)

		Dividend Yield ¹																
Line	Company	16-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)
		Average (1)	2021 ^{2/a} (2)															
1	Atmos Energy	3.45%	2.64%	2.19%	2.08%	2.23%	2.27%	2.39%	2.88%	3.11%	3.53%	4.13%	4.19%	4.70%	5.34%	4.78%	4.16%	4.66%
2	Chesapeake Utilities	2.76%	1.66%	1.86%	1.68%	1.76%	1.69%	1.91%	2.18%	2.44%	2.87%	3.25%	3.36%	3.91%	4.09%	4.10%	3.62%	3.76%
3	New Jersey Resources	3.21%	3.47%	3.47%	2.50%	2.61%	2.69%	2.86%	3.14%	3.50%	3.71%	3.38%	3.33%	3.69%	3.46%	3.35%	3.02%	3.19%
4	NiSource Inc.	4.00%	3.69%	3.41%	2.86%	3.10%	2.79%	2.76%	3.53%	2.69%	3.30%	3.84%	4.53%	5.66%	7.64%	5.69%	4.29%	4.21%
5	Northwest Nat. Gas	3.56%	3.90%	3.33%	2.81%	3.05%	3.02%	3.28%	4.01%	4.14%	4.22%	3.63%	3.85%	3.63%	3.73%	3.27%	3.12%	3.73%
6	ONE Gas Inc.	2.53%	3.12%	2.70%	2.25%	2.46%	2.37%	2.32%	2.71%	2.28%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	South Jersey Inds.	3.49%	5.00%	4.76%	3.66%	3.62%	3.20%	3.64%	3.95%	3.40%	3.14%	3.22%	2.81%	3.00%	3.43%	3.08%	2.81%	3.15%
8	Southwest Gas	2.92%	3.63%	3.28%	2.60%	2.74%	2.46%	2.62%	2.87%	2.72%	2.69%	2.75%	2.78%	3.15%	4.01%	3.19%	2.56%	2.60%
9	Spire Inc.	3.78%	3.79%	3.38%	2.95%	3.10%	3.09%	3.08%	3.53%	3.78%	3.96%	4.11%	4.31%	4.70%	3.91%	3.94%	4.43%	4.34%
10	UGI Corp.	2.86%	3.30%	3.56%	2.16%	2.09%	2.01%	2.35%	2.50%	2.61%	3.01%	3.68%	3.30%	3.48%	3.23%	2.85%	2.69%	2.96%
11	WGL Holdings Inc.	3.91%	N/A	N/A	N/A	N/A	2.56%	2.94%	3.41%	4.24%	3.94%	3.89%	4.06%	4.37%	4.62%	4.22%	4.19%	4.48%
12	Average	3.35%	3.42%	3.19%	2.56%	2.68%	2.56%	2.74%	3.16%	3.17%	3.44%	3.61%	3.65%	4.03%	4.35%	3.85%	3.49%	3.71%
13	Median	3.39%	3.55%	3.35%	2.55%	2.68%	2.56%	2.76%	3.14%	3.11%	3.42%	3.75%	3.60%	3.80%	3.96%	3.65%	3.37%	3.75%
14	20-Yr Treasury Yields ³	3.18%	2.00%	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%
15	20-Yr TIPS ³	1.05%	-0.36%	-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%
16	Implied Inflation ^b	2.11%	2.37%	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%
17	Real Dividend Yield ^c	1.22%	1.03%	1.51%	0.75%	0.60%	0.65%	1.17%	1.38%	0.96%	1.06%	1.25%	1.22%	1.73%	2.45%	1.68%	0.97%	1.06%
Utility																		
18	Nominal "A" Rated Yield ^d	4.64%	3.14%	3.02%	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%
19	Real "A" Rated Yield	2.48%	0.76%	1.33%	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%
Spreads (Utility Bond - Stock)																		
20	Nominal ^e	1.30%	-0.28%	-0.18%	1.21%	1.57%	1.44%	1.19%	0.96%	1.11%	1.04%	0.52%	1.39%	1.43%	1.69%	2.68%	2.59%	2.36%
21	Real ^f	1.27%	-0.27%	-0.17%	1.19%	1.54%	1.41%	1.17%	0.94%	1.08%	1.01%	0.51%	1.36%	1.40%	1.66%	2.62%	2.52%	2.30%
Spreads (Treasury Bond - Stock)																		
22	Nominal ^g	-0.16%	-1.42%	-1.84%	-0.15%	0.34%	0.09%	-0.52%	-0.61%	-0.10%	-0.32%	-1.06%	-0.03%	0.00%	-0.24%	0.51%	1.42%	1.28%
23	Real ^h	-0.16%	-1.39%	-1.81%	-0.15%	0.34%	0.09%	-0.51%	-0.60%	-0.10%	-0.31%	-1.04%	-0.03%	0.00%	-0.23%	0.50%	1.39%	1.25%



Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, May 28, 2021.

³ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

⁴ www.moodys.com, Bond Yields and Key Indicators, through September 28, 2021.

Notes:

^a Based on the average of the high and low price for the year and the projected Dividends Declared per share published in the Value Line Investment Survey.

^b Line 16 = (1 + Line 14) / (1 + Line 15) - 1.

^c Line 17 = (1 + Line 12) / (1 + Line 16) - 1.

^d The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; (Line 18 - Line 12).

^e The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; (Line 19 - Line 17).

^f The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield; (Line 14 - Line 12).

^g The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield; (Line 15 - Line 17).

El Paso Electric Company

Natural Gas Utilities (Valuation Metrics)

		Dividend per Share ¹																		
Line	Company	16-Year		2020 (3)	2019 (4)	2018 (5)	2017 (6)	2016 (7)	2015 (8)	2014 (9)	2013 (10)	2012 (11)	2011 (12)	2010 (13)	2009 (14)	2008 (15)	2007 (16)	2006 (17)	2018	2017
		Average	2021 ²																CAGR	CAGR
		(1)	(2)																(18)	(19)
1	Atmos Energy	1.53	2.30	1.56	1.48	1.94	1.80	1.68	1.56	1.48	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26	2.97%	2.86%
2	Chesapeake Utilities	1.05	1.69	1.12	1.07	1.39	1.26	1.19	1.12	1.07	1.01	0.96	0.91	0.87	0.83	0.81	0.78	0.77	3.97%	3.83%
3	New Jersey Resources	0.82	1.27	0.93	0.86	1.11	1.04	0.98	0.93	0.86	0.81	0.77	0.72	0.68	0.62	0.56	0.51	0.48	4.54%	4.81%
4	NiSource Inc.	0.88	0.84	0.83	1.02	0.78	0.70	0.64	0.83	1.02	0.98	0.94	0.92	0.92	0.92	0.92	0.92	0.92	-1.25%	-2.45%
5	Northwest Nat. Gas	1.75	1.91	1.86	1.85	1.89	1.88	1.87	1.86	1.85	1.83	1.79	1.75	1.68	1.60	1.52	1.44	1.39	1.27%	1.48%
6	ONE Gas Inc.	1.40	2.16	1.20	0.84	1.84	1.68	1.40	1.20	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.78%	0.00%
7	South Jersey Inds.	0.86	1.19	1.02	0.96	1.13	1.10	1.06	1.02	0.96	0.90	0.83	0.75	0.68	0.61	0.56	0.51	0.46	4.80%	5.51%
8	Southwest Gas	1.40	2.26	1.62	1.46	2.08	1.98	1.80	1.62	1.46	1.32	1.18	1.06	1.00	0.95	0.90	0.86	0.82	6.13%	6.90%
9	Spire Inc.	1.78	2.49	1.84	1.76	2.25	2.10	1.96	1.84	1.76	1.70	1.66	1.61	1.57	1.53	1.49	1.45	1.40	2.97%	2.92%
10	UGI Corp.	0.77	1.32	0.89	0.79	1.02	0.96	0.93	0.89	0.79	0.74	0.71	0.68	0.60	0.52	0.50	0.48	0.46	5.21%	5.68%
11	WGL Holdings Inc.	1.64	N/A	1.83	1.72	N/A	2.02	1.93	1.83	1.72	1.66	1.59	1.55	1.50	1.47	1.41	1.37	1.35	N/A	2.93%
12	Average	1.25	1.74	1.34	1.25	1.54	1.50	1.40	1.34	1.25	1.24	1.18	1.13	1.08	1.04	1.00	0.96	0.93	3.24%	3.13%
13	Industry Average Growth	4.67%	30.43%	6.50%	-18.69%	2.76%	6.99%	5.03%	6.50%	1.58%	4.67%	4.35%	4.34%	4.47%	4.20%	3.83%	3.13%			

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 18, 2021.

² The Value Line Investment Survey, May 28, 2021.