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SOAH DOCKET NO. 473-22-2695
PUC DOCKET NO. 53601

**APPLICATION OF ONCOR ELECTRIC
DELIVERY COMPANY LLC FOR
AUTHORITY TO CHANGE RATES**

**PUBLIC UTILITY COMMISSION
OF TEXAS**

**THE UNITED STATES DEPARTMENT OF DEFENSE AND ALL OTHER
FEDERAL EXECUTIVE AGENCIES' NOTICE OF FILING DIRECT TESTIMONY OF
MAUREEN L. RENO**

The United States Department of Defense and all other Federal Executive Agencies (“DoD/FEA”) files the Direct Testimony of Maureen L. Reno, together with accompanying exhibits. This notice includes the following:

1. Direct Testimony of Maureen L. Reno.
2. Exhibits MLR-1 through MLR-9
3. Affidavit of Maureen L. Reno

August 26, 2022

Respectfully submitted,

/s/ Kyle J. Smith

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CERTIFICATE OF SERVICE

I, Kyle J Smith, attorney for DoD/FEA, hereby certify that a copy of DoD/FEA's Notice of Filing Direct Testimony of Maureen L. Reno was served on all parties of record in this proceeding on August 26, 2022 by electronic mail.

/s/ Kyle J. Smith _____
Kyle J Smith

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PUC DOCKET NO. 53601**

**APPLICATION OF ONCOR ELECTRIC)
DELIVERY COMPANY LLC FOR) PUC DOCKET NO. 53601
AUTHORITY TO CHANGE RATES)**

DIRECT TESTIMONY

OF

MAUREEN L. RENO

ON BEHALF OF

**THE UNITED STATES DEPARTMENT OF DEFENSE
AND
ALL OTHER FEDERAL EXECUTIVE AGENCIES**

August 26, 2022

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR FULL NAME, OCCUPATION, AND BUSINESS**
3 **ADDRESS.**

4 A. My name is Maureen L. Reno. I am an economist with a specialization in public utility
5 economics and finance. I am the founder and principal consultant of Reno Energy
6 Consulting Services, L.L.C. My business address is 19 Hope Hill Road, Derry, New
7 Hampshire 03038.

8 **Q. PLEASE SUMMARIZE YOUR EDUCATION.**

9 A. I received a Bachelor of Arts degree in Economics from the University of Maine at
10 Orono, Maine in 1996. In 1998, I earned a Master of Arts degree in Economics from
11 the University of New Hampshire in Durham, New Hampshire, where I also completed
12 all course work and examination requirements for the Ph.D. degree in economics,
13 except for my dissertation. My areas of academic concentration included industrial
14 organization and environmental economics.

15 **Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?**

16 A. I have over 20 years of professional experience in the regulated utilities and energy
17 sectors. From 2001 to 2011, I served as a utility analyst and program manager with the
18 New Hampshire Public Utilities Commission advising the Commissioners on regulated
19 utilities' cost of capital and return on equity ("ROE"). From 2011 to 2012, I served as
20 a Senior Energy Economist with the Union of Concerned Scientists, advising on the
21 intricacies of the regulated utility industry and helping to develop alternative financing
22 programs for renewable energy investments. Since 2012, I have served as an
23 independent consultant to multiple firms, including Exeter Associates, Inc. and
24 TAHOEconomics, LLC on utility cost of capital, ROE, and capital structure;

1 Stephenson Strategic Communications, LLC on federal climate and energy policy; and
2 TrueLight Energy, LLC on regulated utility rate impacts and energy markets.

3 **Q. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE**
4 **A PUBLIC REGULATORY COMMISSION?**

5 A. Yes. My testimony was presented and accepted in more than 20 rate proceedings in
6 several states--to include Alaska, Arizona, Georgia, Missouri, New Hampshire, New
7 Mexico, Oklahoma, and Texas--on a wide range of issues concerning regulated
8 utilities, retail and wholesale energy markets, and renewable energy. (See Appendix A
9 for my curriculum vitae and qualifications.)

10 **Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC UTILITY**
11 **COMMISSION OF TEXAS?**

12 A. Yes. I served as an expert witness on cost of capital, ROE, and capital structure for the
13 United States Department of Energy in Docket No. 43695 in the *Application of*
14 *Southwestern Public Service Company for Authority to Change Rates* and Docket No.
15 41791 in the *Application of Entergy Texas, Inc. for Authority to Change Rates and*
16 *Reconcile Fuel Costs*. Recently, I served as an expert witness on the same topic for the
17 United States Department of Defense ("DOD") and all other Federal Executive
18 Agencies ("FEA") (collectively, "DOD/FEA") in Docket No. 52195 in the *Application*
19 *of El Paso Electric Company to Change Rates*.

20 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

21 A. I am serving as an expert witness on cost of capital, ROE, and capital structure on
22 behalf of the DOD/FEA.

23 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

24 A. My testimony is organized into seven sections, including this one. In Section II, I
25 present the purpose of my testimony; summarize the Oncor Electric Delivery Company

1 LLC (“Oncor” or “Company”) ROE, capital structure, and rate of return in the context
2 of Commission precedent; and provide my ROE recommendation. In Section III, I
3 discuss current economic and financial conditions that are affecting investors’
4 opportunity cost of capital (in general and specifically for utility companies). In Section
5 IV, I evaluate the Companies’ proposed capital structure and provide my own
6 recommendation. In Section V, I explore different types of risks for regulated electric
7 utilities, and I evaluate Oncor’s business and economic position to determine whether
8 such risks are effectively captured in my sample proxy group and ROE
9 recommendation. In Section VI, I describe the methodologies that I applied to develop
10 my cost of equity findings and ROE recommendation. Finally, in Section VII, I
11 summarize my conclusions and provide my recommendations to the Commission.

12 **II. PURPOSE AND SUMMARY OF RECOMMENDATIONS**

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

14 A. The purpose of my testimony is to recommend, for ratemaking purposes in this case,
15 an overall rate of return, a capital structure, and a fair ROE for Oncor. Oncor is a
16 majority-owned subsidiary of Oncor Electric Delivery Holdings Company LLC
17 (“Oncor Holdings”), which is indirectly and wholly owned by Sempra Energy
18 (“Sempra”). Oncor Holdings owns 80.25% of Oncor’s outstanding membership
19 interests, and Texas Transmission Investment LLC owns the remaining 19.75%.¹

20 My recommendation is set forth according to the standards in Bluefield Water
21 Works v. PSC, 262 U.S. 679, 692-93 (1923) (“Bluefield”) and FPC v. Hope Natural
22 Gas Co., 320 U.S. 591, 605 (1944) (“Hope”). In Bluefield and Hope, the U.S. Supreme
23 Court established the principle that a public utility may be allowed to earn a return

¹ Ledbetter Direct at 12.

1 comparable to a return on investments in other enterprises having similar risks that
2 allow the utility, under efficient management, to maintain financial integrity, the
3 opportunity to attract capital on reasonable terms, and to maintain a satisfactory credit
4 rating.

5 **Q. WHAT IS THE RETURN ON EQUITY AND RATE OF RETURN THAT THE**
6 **COMPANY IS REQUESTING IN ITS FILING?**

7 A. The Company's cost of capital witness, Dylan W. D'Ascendis, is recommending that
8 the Commission allow an opportunity for Oncor to earn a rate of return ("ROR") of
9 7.05%. This ROR is based on a regulated capital structure of 45% equity and 55% long-
10 term debt, with a cost of debt of 4.39% and an ROE of 10.3%. Mr. D'Ascendis'
11 recommended ROE of 10.3% on rate base is within his range of 9.6% to 11.60%.² His
12 recommendations are shown in Table 1 below.

Table 1. Requested Weighted Average Cost of Capital				
Oncor Electric Delivery Company LLC				
	Proforma Capital Balances	Weight	Cost of Capital	Actual Weighted Cost
Long-Term Debt	\$10,041,938,099	55.02%	4.39%	2.42%
Preferred Stock	\$0	0.00%		
Common Equity	\$8,209,409,256	44.98%	10.30%	4.63%
Total Capitalization	\$18,251,347,355	100.00%		7.05%

Source: Schedule 11-C-2.1.

D'Ascendis Direct, Table 1, at 5.

Note: Dollar figures are rounded to whole numbers, and percentages are rounded to the second decimal point.

13 **Q. DO YOU RECOMMEND THAT THE COMMISSION ACCEPT THE**
14 **COMPANY'S PROPOSED COST OF DEBT AND CAPITAL STRUCTURE?**

² D'Ascendis Direct at 4-5.

1 A. Yes. I recommend that the Commission accept the Company's recommended cost of
2 debt and capital structure for Oncor. That is, I recommend the use of a regulated capital
3 structure of 45% equity and 55% long-term debt, with a cost of debt of 4.39%.

4 **Q. SHOULD THE COMMISSION REJECT MR. D'ASCENDIS' ROE**
5 **RECOMMENDATION?**

6 A. Yes, for several reasons. Mr. D'Ascendis' ROE recommendation does not comport
7 with his data. An objective analysis of his data would yield a lower ROE. Mr.
8 D'Ascendis skews his analysis through the over-emphasis and overreliance on inputs
9 with an upward bias. For example, he relies exclusively on earnings growth estimates,
10 which has the effect of inflating his Discounted Cash Flow ("DCF") model results as
11 well as his Capital Asset Pricing Model ("CAPM"), Empirical CAPM ("ECAPM"),
12 and Risk Premium results. Relying exclusively on earnings growth estimates also
13 inflates his estimated Market Equity Risk Premium ("ERP"), a key input in the CAPM
14 and ECAPM. (By contrast, I rely on earnings growth estimates, dividend growth, book
15 value growth, and sustainable growth, the combination of which produces results that
16 are more accurate.) Mr. D'Ascendis relies heavily on interest rates that do not reflect
17 current trends in financial markets or investors' expectations of inflation and economic
18 growth. His historical interest rates, which reflect market conditions from earlier this
19 year, and forecasted interest rates inflate all of his CAPM, ECAPM, and Risk Premium
20 estimates. (By contrast, I rely on current market data; specifically, the 90-day period
21 ended July 29, 2022, which produces results that are more up to date and accurate.)

22 **Q. WHAT ARE THE CURRENT AUTHORIZED ROR AND ROE FOR ONCOR?**

23 A. On October 13, 2017, the Commission approved a settlement in Docket No. 46957
24 authorizing a rate of return or weighted average cost of capital of 7.44% based upon a

1 5.7% cost of debt, an authorized ROE of 9.8%, and an authorized regulatory capital
2 structure of 57.50% long-term debt and 42.50% equity.³

3 **Q. WHAT DO YOU RECOMMEND AS THE APPROPRIATE ROR AND ROE**
4 **FOR ONCOR?**

5 A. For Oncor, I recommend an overall ROR of about 6.50%, based on an ROE of 9.10%,
6 an embedded cost of long-term debt of 4.39%, and a capital structure comprised of
7 55.01% long-term debt. My calculations and recommendations are shown in Table 2.

Table 2. Reno Proposed Weighted Average Cost of Capital				
Oncor Electric Delivery Company LLC				
	Proforma Capital Balances	Weight	Cost of Capital	Actual Weighted Cost
Long-Term Debt	\$10,038,791,952	55.01%	4.39%	2.41%
Preferred Stock	\$0	0.00%		
Common Equity	\$8,209,409,256	44.99%	9.10%	4.09%
Total Capitalization	\$18,248,201,208	100.00%		6.50%

Source: Schedule 11-C-2.1. Adjusted to reflect DOD/FEA witness Mr. Morgan's and Ms. Rogers' capital structure adjustment as described later in my testimony under Section IV., Rate of Return and Capital Structure.

D'Ascendis Direct, Table 1, at 5.

Note: Dollar figures are rounded to whole numbers, and percentages are rounded to second decimal place.

8 **Q. WHAT IS THE BASIS OF YOUR RECOMMENDED ROE FOR ONCOR?**

9 A. My ROE recommendation is based on the rounded average of my ROE range of 8.69%
10 to 9.43% (9.06%), derived from my market-based cost of equity methodologies using
11 a proxy group of comparable risk companies. I recommend an ROE based on the
12 average of my range because it represents a fair and reasonable ROE for Oncor in light
13 of the Company's risk and investors' current valuation of public utilities and equity
14 assets in general.

³ PUC Order issued on October 13, 2017, PUC Docket No. 46957, SOAH Docket No. 473-17-3196 at 7.

1 **III. MACROECONOMIC CONDITIONS**

2 **Q. WHY IS IT IMPORTANT TO CONSIDER MACROECONOMIC**
3 **CONDITIONS IN DEVELOPING A RECOMMENDED ROE?**

4 A. Investors consider both economic and monetary conditions when assessing the
5 opportunity costs of their investments. Global, national, and regional economic
6 conditions affect investor expectations regarding investment returns, as measured by
7 stock prices, interest rates, and sustainable dividend growth.

8 **Q. HOW WOULD YOU DESCRIBE CURRENT NATIONAL ECONOMIC**
9 **CONDITIONS?**

10 A. In general, the economic signals are mixed. Recent economic growth, as measured by
11 real Gross Domestic Product (“GDP”), shows that the U.S. economy is slowing down
12 after experiencing a post-COVID-19 pandemic rebound. In 2021, real GDP growth
13 reached an annual high of 5.7%, only to fall by 1.6 during Q1 2022.⁴ *Value Line*
14 *Investment Survey* (“*Value Line*”) reports that the GDP continued to fall during Q2
15 2022.⁵ In contrast, unemployment continued to hold at 3.6% through June.⁶ Inflation
16 remains the primary concern in the economy, as supply chain and labor market
17 shortages and fuel prices continue to drive up prices from 4.7% in the Consumer Price
18 Index (“CPI”) in 2021 to 8.5% in Q1 2022.⁷

19 To thwart inflationary pressures, the Federal Reserve Bank’s Open Market
20 Committee (“Federal Reserve” or “FOMC”) decided to increase the target range for
21 the Federal Funds rate 75-basis points in July 2022 for the third time this year, resulting
22 in a Federal Funds target range of 2.25% to 2.50% and “... anticipates that ongoing

⁴ See Exhibit MLR-1.

⁵ Value Line Investment Survey, *Selection and Opinion*, August 12, 2022, at 1709.

⁶ See Exhibit MLR-1.

⁷ See Exhibit MLR-1.

1 increases in the target range will be appropriate.”⁸ In its press release, the FOMC also
2 expresses that it will continue reducing its holdings of U.S. Treasury securities and
3 agency debt and agency mortgage-backed securities. “The Committee is strongly
4 committed to retuning inflation to its 2 percent objective.”⁹ The FOMC lists supply and
5 demand imbalances related to the pandemic, higher food and energy prices, and broader
6 price pressures as causes for inflation. The FOMC also expresses concern regarding the
7 invasion of Ukraine by Russia which will likely create additional pressure on inflation
8 and suppress economic growth.¹⁰

9 **Q. HOW HAVE FINANCIAL CONDITIONS CHANGED IN RECENT YEARS?**

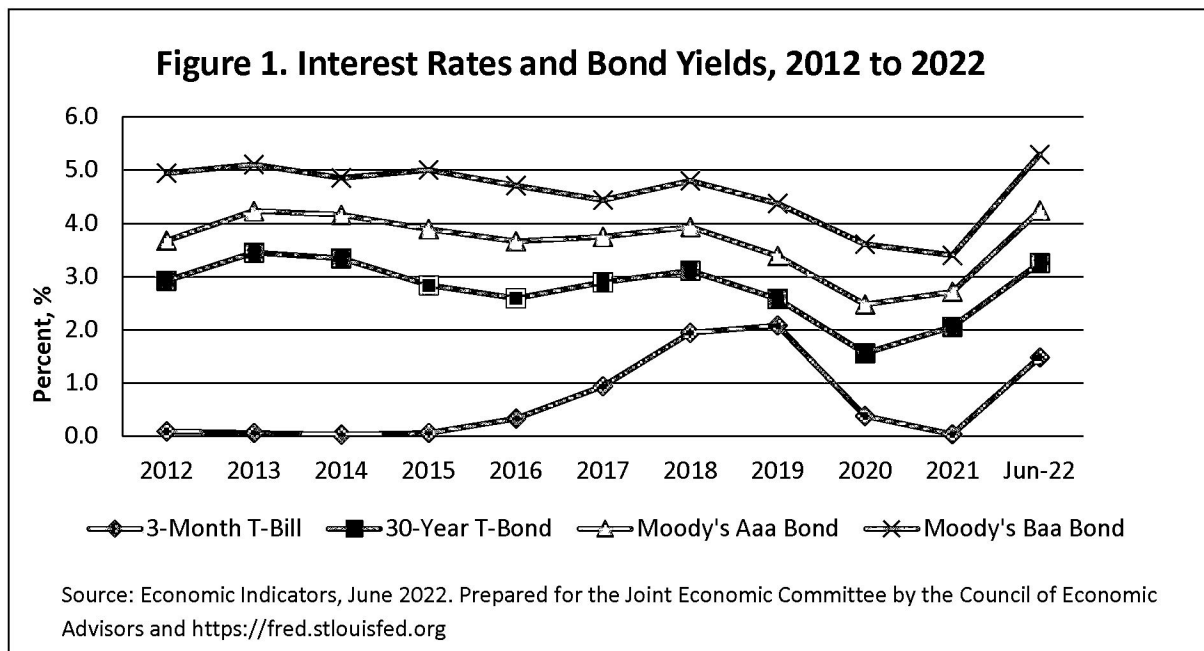
10 A. Figure 1 below shows how different market costs of capital have changed for the period
11 2012 through 2022.¹¹ Recent yields on both Treasury and corporate bonds are
12 increasing from the historic lows reached in 2020 and 2021.

⁸ Federal Reserve, *Press Release*, July 27, 2022.

⁹ *Id.*

¹⁰ *Id.* See also *Immediate Release: Department of Defense Statement on Additional Military Assistance for Ukraine*, Issued on February 26, 2022. This DOD press release refers to Russia’s actions as an “unprovoked attack.” <https://www.defense.gov/News/Releases/Release/Article/2947554/department-of-defense-statement-on-additional-military-assistance-for-ukraine/>.

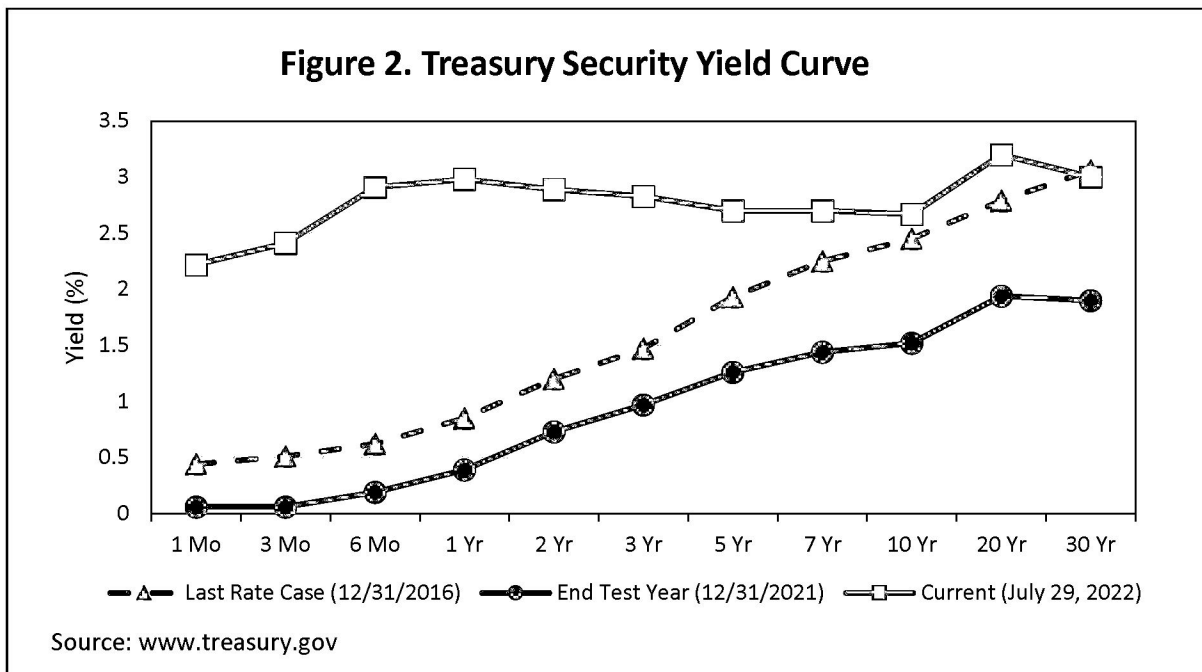
¹¹ See Exhibit MLR-2a.



1 Yields on long-term bonds (reference the 30-Year Treasury Bond, or 30-Year
 2 T-Bond, in Figure 1) were 2.06% in 2021 and increased to 3.25% in June 2022. The
 3 cost of debt for Moody's Investors Service ("Moody's") Baa-rated corporations is
 4 presently at 5.29%. Moreover, short-term interest rates (reference the 3-Month U.S.
 5 Treasury Bill, or 3-Month T-Bill, in Figure 1) have rebounded from near 0% to 1.48%
 6 in June 2022.

7 It is crucial to note that changes in short-term interest rates are the result of the
 8 FOMC's policy actions; specifically, FOMC's increase in the Federal Funds rate and
 9 deployment of its quantitative tightening program to maintain its employment and
 10 inflation goals. By contrast, long-term interest rates are primarily determined by market
 11 forces, including investor expectations of future levels of inflation and economic
 12 growth. Figure 2 shows the yields on the different types of T-Bills and T-Bonds, which
 13 is referred to by financial analysts as the "yield curve." The yield curve reflects the
 14 bond market's consensus opinion of future financial market conditions, such as levels
 15 of inflation and interest rates. At the end of the test year (December 31, 2021), the yield

1 curve presented an upward-sloping trend. In other words, the yields on short-term T-
2 Bills were near historic lows, while the yields on some long-term T-Bonds were
3 increasing, showing that investors were expecting economic growth in the long term.
4 However, the current (July 29, 2022) yield curve shows that yields on long-term
5 T-Bonds are flat relative to the yields on short-term T-Bills, which suggests that
6 investors are anticipating a sustained economic slowdown, consistent with the current
7 decrease in GDP over Q1 and Q2 2022.



8 Another measure of the collective views of investors regarding long-term
9 inflation expectations is the Treasury Inflation-Protected Securities (“TIPS”) spread, or
10 the difference between yields on long-term nominal Treasury securities and long-term
11 TIPS. The yield on a long-term conventional Treasury bond pays its holder a fixed
12 nominal coupon and principal to compensate the investor for future inflation, and it
13 includes the real rate of interest and the inflation compensation. For TIPS, the coupons

1 and principal both rise and fall with inflation, as measured by the CPI. The published
2 yield includes only the real rate of interest. Therefore, the difference, roughly speaking,
3 between the prevailing yields on these two types of Treasury securities reflects the
4 inflation compensation over that maturity horizon that is expected by bond investors.
5 The 90-day average difference in the yield on the 30-year Treasury Bond and 30-year
6 TIPS for the period ended July 29, 2022 equals 2.39% and represents the market's most
7 recent expectations of long-term inflation.¹² In other words, this confirms that investors
8 are anticipating that the rate of inflation over the long term is expected to stabilize at a
9 higher rate than the FOMC's goal of 2.0%, which may further feed fears of a sustained
10 economic downturn on the horizon.

11 The prospect of a sustained economic downturn on the horizon creates
12 uncertainty and reinforces investor expectations of a low opportunity cost of purchasing
13 utility stocks, as demonstrated by my cost of equity study estimates.

14 **Q. WHAT ARE THE ECONOMIC EXPECTATIONS FOR THE U.S. IN THE**
15 **NEAR FUTURE?**

16 A. According to the Q2 2022 edition of *Survey of Professional Forecasters* by the Federal
17 Reserve Bank of Philadelphia, economic growth, as measured by real GDP, is expected
18 to remain near 2.3% during Q4 2022 and then fall slightly to 2.1% during Q1 2023.
19 Long-run economic growth beyond 2023 is expected to fall to an annual rate of
20 approximately 2.0% in 2024 and then increase slightly to 2.3% in 2025.¹³

21 Over the next year, inflation is expected to fall to moderate levels, with the CPI
22 remaining near 2.9% in 2023 and then falling to 2.3% in 2024. The data show that
23 analysts expect the national economy to remain near full employment in the near term

¹² See Exhibit MLR-2c.

¹³ See Exhibit MLR-3.

1 with the national unemployment rate near about 3.6% on average in 2023 and then
2 slightly increase to 3.8% 2024 and 2025.

3 **Q. HOW DOES THE TEXAS ECONOMY COMPARE TO THE NATIONAL**
4 **ECONOMY?**

5 **A.** According to the Federal Reserve Bank of Dallas, the Texas economy continued
6 expanding in June and July, though at a slower pace than earlier in 2022 due to
7 weakening demand in manufacturing.¹⁴ However, the Texas unemployment rate
8 dropped to 4.1% in June from 4.2 in May 2022.¹⁵ This is due to the recent acceleration
9 in employment growth to an annualized 7.3% in June, exceeding the 5.6% in May
10 2022.¹⁶ Texas outpaced the nation in employment growth in all sectors except
11 government. The fastest-growing sector was energy, where employment increased at
12 an annualized 22% rate, due to recent increases in West Texas Intermediate crude oil
13 and gas prices.¹⁷ In general, though, overall prices and wages eased in July after
14 climbing to 10% earlier this year.¹⁸ In response to Federal monetary policy, Texas
15 financial institutions expect loan demand to weaken in coming months.

16 **Q. HOW DOES THE U.S. MILITARY IMPACT THE TEXAS ECONOMY?**

17 **A.** According to the Office of Local Defense Community Cooperation, Texas ranks first
18 in the nation for receiving DOD funds at \$83 billion in 2020, contributing 4.6% of state
19 GDP.¹⁹ The majority of these funds (\$71.2 billion) were attributed to contract spending

¹⁴ Federal Reserve Bank of Dallas, *Signs of Slowdown Growing in Texas; Price Pressures Ease*, August 4, 2022, [Signs of Slowdown Growing in Texas; Price Pressures Ease - Dallasfed.org](https://www.dallasfed.org/signs-of-slowdown-growing-in-texas-price-pressures-ease)

¹⁵ Id.

¹⁶ Id.

¹⁷ Id.

¹⁸ US Federal Reserve Systems, *The Beige Book: Summary of Commentary on Current Economic Conditions by Federal Reserve District*, July 13, 2022, at K-1 and K-2, [Beige Book - July 13, 2022 \(federalreserve.gov\)](https://www.federalreserve.gov/beigebook/2022/07132022/)

¹⁹ *Defense Spending by State: Fiscal Year 2020*, U.S. Department of Defense, Office of Local Defense Community Cooperation, at 104, [Defense Spending by State, Fiscal Year 2020 \(oldcc.gov\)](https://oldcc.gov/defense-spending-by-state-fiscal-year-2020)

1 while the remaining amount (\$11.9 billion) was spent on personnel totaling 220,713
2 individuals, the majority of which are Army personnel (61%).²⁰

3 **Q. WHY IS THE TEXAS ECONOMY IMPORTANT TO INVESTORS?**

4 A. In general, investors are aware of current regional and national economic conditions
5 and know that the Company operates in Texas, where economic indicators are currently
6 exhibiting signs of an economic slowdown. Investors will also gauge the Company's
7 prospects for sales growth as they consider the state's economy. Investors would likely
8 compare the Texas economy to the economies of other states when deciding whether
9 to invest in a similar utility company located elsewhere, all else being equal.

10 **IV. RATE OF RETURN AND CAPITAL STRUCTURE**

11 **Q. PLEASE SUMMARIZE THE PROCESS OF ESTIMATING THE**
12 **COMPANIES' COST OF CAPITAL.**

13 A. The overall cost of capital is comprised of the costs of long-term debt and equity capital.
14 The first step in estimating the cost of capital is to determine the appropriate capital
15 structure. Long-term debt costs are computed using the Companies' actual embedded
16 costs for a certain time period (e.g., the test year). Unlike the debt component of the
17 capital structure, the equity cost rate must be estimated. The overall weighted average
18 cost of capital ("WACC") is computed by weighting individual costs of debt and equity
19 capital by their respective proportions of total capitalization and summing the result.

20 The capital structure is particularly important because investors may view a
21 high reliance on debt as risky (referred to as financial or leverage risk), thereby leading
22 to a higher required ROE relative to similar investment opportunities. A high reliance
23 on debt may be viewed as risky because it can contribute to earnings volatility.

²⁰ Id. at 105.

1 However, excessive equity, while reducing financial risk, may improperly increase the
2 overall cost of capital (and therefore return on rate base) for customers.

3 **Q. WHAT CAPITAL STRUCTURE AND COST OF DEBT IS ONCOR**
4 **REQUESTING FOR USE IN THIS CASE?**

5 A. The Company is requesting a regulated capital structure of 44.98% common equity and
6 55.02% long-term debt for establishing new return rates in this case. Based on this
7 capital structure—a proposed embedded cost of long-term debt of 4.39%, and an ROE
8 of 10.30%—Oncor is requesting that the Commission provide it an opportunity to earn
9 an ROR of 7.05%.

10 **Q. WHAT ADJUSTMENTS WERE MADE TO THE ACTUAL DECEMBER 31,**
11 **2021 DEBT AMOUNTS?**

12 A. Oncor witness Kevin R. Fease made several adjustments to the Company's actual
13 December 31, 2021 capital structure to reflect the amount of unamortized fees,
14 expenses premiums, and gains and losses on required debt. According to Mr. Fease,
15 these adjustments are consistent with the historical methodology used in calculating
16 Oncor's cost of capital in the Earnings Monitoring Report required by the Commission
17 and in past rate cases.

18 **Q. DO YOU RECOMMEND THAT THE COMMISSION ACCEPT THE**
19 **COMPANY'S REQUESTED LONG-TERM COST OF DEBT?**

20 A. Yes. The Companies' proposed cost of debt of 4.39% is reasonable when compared to
21 the prevailing yields on equivalent long-term debt at the time of its issuances.

22 **Q. WHAT CAPITAL STRUCTURE WAS APPROVED BY THE COMMISSION**
23 **IN ONCOR'S LAST BASE-RATE CASE?**

24 A. Oncor's capital structure, as approved by the Commission in Docket No. 46957, was
25 57.50% long-term debt and 42.5% common equity. According to Mr. Fease, Oncor

1 made a debt-to-equity commitment in Docket 46957 that required Oncor not to exceed
2 its approved debt to equity ratio since the last case, with which the Company has
3 complied.²¹

4 **Q. WHAT WAS THE ACTUAL CAPITAL STRUCTURE AT THE END OF THE**
5 **TEST YEAR ENDED DECEMBER 31, 2021?**

6 A. The Company's capital structure at the end of the test year included a long-term debt
7 balance of about \$10.1 billion and a balance of common equity of about \$12.6 billion,
8 for a total capitalization of approximately \$22.6 billion.

9 **Q. DID THE COMPANY MAKE ADJUSTMENTS TO ITS ACTUAL 2021**
10 **CAPITAL STRUCTURE FOR DETERMINING THE EQUITY/DEBT**
11 **RATIONS FOR RATEMAKING PURPOSES?**

12 A. Yes. Mr. Fease made a couple proforma adjustments to the Company's test year
13 (ending December 31, 2021) equity balance. Specifically, Mr. Fease subtracted about
14 \$676.1 million of goodwill from the InfraREIT/NTU acquisition and non-regulated
15 equity of \$3.7 billion supporting goodwill from a 2007 transaction.²² These changes
16 yield a proforma common equity balance of about \$8.2 billion and a total capitalization
17 of \$18.3 billion.

18 **Q. DID YOU MAKE ANY ADJUSTMENTS TO THE COMPANY'S PROPOSED**
19 **CAPITAL STRUCTURE?**

20 A. Yes. I subtracted approximately \$3.1 million in debt from the Company's test year
21 long-term debt. This amount is associated with the present value of the lease payments
22 for mobile generating units. DOD/FEA witnesses Lafayette K. Morgan and Jennifer L.
23 Rogers recommend an adjustment to the Company's balance to account for this
24 liability. To avoid double counting of this liability, I subtract the \$3.1 million from the

²¹ Fease Direct at 12.

²² Company response to CITIES RFI Set No. 3, Question No. 3-16.

1 Company's debt balance.²³ This adjustment decreases the proforma total debt balance
2 and total capitalization with minimal effect on the Company's proposed capital
3 structure and cost of debt.

4 **Q. DO THESE PROFORMA ADJUSTMENTS TO THE CAPITAL STRUCTURE**
5 **MEET THE COMMISSION REQUIREMENTS ESTABLISHED IN DOCKET**
6 **NO. 46957?**

7 A. No. The debt to total capital at the end of the test year (44.4%) and after the proforma
8 adjustment (55.0%) are less than the Commission required debt to total capital of
9 57.5%.

10 **Q. DID THE COMPANY CONSIDER THE FINANCIAL IMPACT OF THE**
11 **PROFORMA ADJUSTED CAPITAL STRUCTURE?**

12 A. Yes. Company witness Ellen Lapson conducted a series of analyses asserting that the
13 last Commission approved regulatory capital structure of 42.5% equity and 57.5% debt
14 may lead to a credit downgrade by Moody's. Specifically, she showed that the
15 Company's cash flow debt leverage in 2019 and 2021 dipped below the 15% criteria
16 used by Moody's. Ms. Lapson found that Oncors' currently proposed regulatory capital
17 structure of 45% equity and 55% debt provides greater cash flow leverage ratios that
18 are more consistent with credit rating agencies' benchmarks and would avoid triggering
19 downgrades by Moody's and Fitch.²⁴

20 **Q. DO YOU ACCEPT THE COMPANIES PROPOSED CAPITAL STRUCTURE?**

21 A. Yes. I believe that the company's approach of excluding goodwill associated with
22 merger and acquisition activity from the rate base and ultimately the equity portion of
23 the capital structure is reasonable. Therefore, I recommend that the Commission accept

²³ See DOD/FEA Witnesses Morgan and Rogers Direct at 14-15.

²⁴ Lapson Direct at 33.

1 the Company's proposed capital structures for ratemaking purposes, as adjusted from
2 actuals as of December 31, 2021.

3 **V. COST OF COMMON EQUITY CAPITAL**

4 **Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED ROE?**

5 A. For ratemaking purposes, the cost of equity must be estimated because it cannot be
6 directly observed, and it varies with changing expectations of financial market
7 conditions. The cost of equity is the long-term annualized market return investors (in
8 general) expect when they purchase equity shares of a particular company. It reflects
9 the risk factors of that investment as compared to alternative investment opportunities
10 and to investors' current opportunity cost of investing in the securities of that company
11 (i.e., the investors' risk-adjusted alternatives).

12 Since Oncor is owned indirectly by Semptra Energy and Texas Transmission
13 Investment LLC and is not a publicly traded company, it is not possible to directly
14 apply cost of equity models to the Company. As an alternative, I calculate an estimate
15 of Oncor's cost of equity by deriving average expected market returns for a proxy group
16 of regulated electricity companies with comparable risk.

17 **Q. PLEASE DESCRIBE ONCOR AND ITS OPERATIONS.**

18 A. Oncor owns and operates facilities used to transmit and distribute electricity over
19 54,000 square miles across Texas within the Electric Reliability Council of Texas
20 ("ERCOT") control area that encompasses 400 cities and over 120 counties. It delivers
21 electricity to about 3.8 million points of delivery, representing approximately 13
22 million people.²⁵

²⁵ Greer Direct at 15-16.

1 **Q. PLEASE DISCUSS THE DIFFERENT TYPES OF RISK THAT A**
2 **REGULATED MONOPOLY, SUCH AS AN ELECTRIC UTILITY, MAY**
3 **FACE.**

4 A. An investor's expected return on an investment is composed of the risk-free rate and
5 different types of risk, to include inflation risk, interest rate risk, business risk, financial
6 risk, and regulatory risk.

7 The risk-free rate is the level of return investors can achieve without assuming
8 any risk. In general, most investors agree that an asset perceived by the market as
9 having relatively less risk than other market instruments is a U.S. Treasury bond,
10 because the federal government's access to tax proceeds to fulfill its debt obligations
11 and strong credit rating makes Treasury securities practically default-free. However,
12 Treasury bonds are not absolutely risk-free because they incorporate a risk-premium
13 associated with interest rate risk, which is the premium investors require to compensate
14 them for the forgone opportunity cost of an alternative higher interest rate later.

15 Inflation risk, also called purchasing power risk, is the chance that the cash
16 flows from an investment will not be worth as much in the future because of changes
17 in purchasing power due to inflation.

18 Interest rate risk is the risk that arises for investors from the variability in returns
19 caused by fluctuating interest rates, which depends on how sensitive its price is to
20 interest rate changes in the market. For bonds, for example, its sensitivity depends on
21 the bond's time to maturity and the coupon rate of the bond.

22 Business risk, as perceived by investors, includes all the operating factors that
23 increase the probability that expected future cash flows accruing to investors may not
24 be realized. Business risk would include such factors as sales volatility and operating
25 leverage. A utility's business risk is a function of such factors as customer base

diversity, necessary capital expenditures, the regional and national economy, and the regulatory environment in which it operates. For example, Oncor has invested over \$10.2 billion in Texas since December 31, 2016, as well as an asset exchange from Sharyland Distribution & Transmission Services, L.L.C. (“SDTS”) and Sharyland Utilities, L.P. in 2019 for \$1.9 billion. Oncor plans to invest over \$15 billion to fund the projects necessary to support the growth in its service area and maintain reliability.²⁶

Financial risk relates to the capital structure of a company, including its fixed contractual obligations and ability to pay interest on its debt and refinance that debt when it is due. Credit rating agencies assess the financial health of a company through the use of key financial ratios that measure the extent to which a company can pay its debt, including principal and interest. Corporate rating designations that are commonly used are shown in Table 3, which identifies rating categories used by Standard & Poor’s (“S&P”), Fitch Ratings, Inc. (“Fitch”), and Moody’s, for investment grade issuances.

Table 3. Rating Categories (Investment Grade)	
S&P and Fitch	Moody’s
AAA	Aaa
AA+	Aa1
AA	Aa2
AA-	Aa3
A+	A1
A	A2
A-	A3
BBB+	Baa1
BBB	Baa2
BBB-	Baa3

As I discuss later, the majority of companies in my proxy group have an S&P credit rating of A- or BBB+. One of the key financial ratios used by rating agencies is

²⁶ Greer Direct at 6-7.

1 the debt ratio. The higher the portion of the capital structure that is comprised of debt
2 or leverage, the higher the risk of default on those debt obligations.

3 Regulatory risk is based on the investor's perceived understanding of the
4 current regulatory environment along with possible changes to that regulatory
5 environment. How regulators treat regulatory lag is one example of regulatory risk. To
6 the extent that companies face a time lag between incurring expenses and cost recovery,
7 such risk is best measured by choosing a proxy group of companies that face similar
8 regulatory oversight and earn the majority of their revenues from regulated operations.

9 **Q. IN YOUR VIEW, DOES ONCOR FACE GREATER INFLATION RISK THAN**
10 **OTHER REGULATED UTILITIES IN THE PROXY GROUP?**

11 A. No. As mentioned previously, the risks associated with current inflation trends are
12 shared by all businesses and, as a result, are reflected in my proxy group's calculated
13 costs of equity.

14 **Q. IN YOUR VIEW, DOES THE COMPANY FACE GREATER FINANCIAL**
15 **RISK THAN OTHER REGULATED UTILITIES IN THE PROXY GROUP?**

16 A. No. Oncor does not face greater financial risk than the proxy group of regulated electric
17 utilities, because it has a higher issuer credit ratings than the proxy group. Specifically,
18 Oncor has a S&P issuer credit rating of A, Moody's credit rating of Baa1, and Fitch
19 issuer debt rating of BBB+. These credit rating agencies have also provided ratings for
20 Oncor's senior secured debt, which are A+ (S&P), A2 (Moody's), and A (Fitch).²⁷
21 These secured debt ratings are the result of upgrades in March 2018 after the close of
22 Sempra's acquisition of an approximate 80% indirect interest in the Company.²⁸

²⁷ Fease Direct at 5. *See also* AOC RFI Question No. 1-08 for these Senior Secured Ratings as of May 31, 2022.

²⁸ Fease Direct at 6.

1 Second, Oncor's proposed debt to total capital is similar to the average of proxy group
2 of 55%.²⁹

3 **Q. IN YOUR VIEW, DOES THE COMPANY FACE GREATER BUSINESS RISK**
4 **THAN OTHER REGULATED UTILITIES IN THE PROXY GROUP?**

5 A. No. The fundamental comparison here is to the sample group, I see nothing particularly
6 unique that would demonstrate conclusively that Oncor has greater business risk than
7 its peers in the sample group. Mr. D'Ascendis would like the Commission to believe
8 that Oncor has greater business risk than the proxy group, but I disagree and will discuss
9 the reasons as to why below. Every utility is different, but compared to the sample, it
10 has similar business risk.

11 **Q. DOES MR. D'ASCENDIS OR MR. FEASE IDENTIFY OTHER TYPES OF**
12 **BUSINESS RISK?**

13 Yes. Mr. D'Ascendis and Mr. Fease claim that given the Company's large capital plan
14 of \$15 billion from 2022-2026, coupled with the need to continue to provide safe and
15 reliable service to new and existing customers, Oncor does not have the ability to offset
16 the shortfall in returns on a sustained basis. Approximately two-thirds of the capital
17 plan relates to funding transmission and distribution grid expansion projects to
18 accommodate the growth in the Company's service territory. According to Mr. Fease,
19 the extent of this level of capital spending and the regulatory lag inherent in recovering
20 these expenditures in rates will result in an inability of the Company to earn its
21 authorized return.³⁰

22 **Q. IN YOUR VIEW, DOES THE COMPANY FACE GREATER REGULATORY**
23 **RISK THAN OTHER REGULATED UTILITIES IN THE PROXY GROUP?**

²⁹ See Exhibit MLR-4.

³⁰ Fease Direct at 16.

1 A. No. The Company has a series of rate adjustment clauses or riders that allow it to
2 recover associated costs in between rate cases, thereby reducing lag and regulatory
3 risk.³¹ Specifically, Oncor has the Rider Distribution Cost Recovery Factor (“DCRF”),
4 Transmission Cost Recovery Factor (“TCRF”), Nuclear Decommissioning Charge
5 (“NDC”), and the Energy Efficiency Cost Recovery Factor (“EECRF”). The Company
6 even has riders associated rate case expenses (“Rider RCE”), and wholesale rate case
7 expenses (“Rider WRCE”).

8 Oncor’s last Rider DCRF filing was made on April 8, 2021 in Docket No. 51996
9 which was approved by the Commission on July 30, 2021.³² In this current filing the
10 Company is proposing to transfer distribution plant assets and their associated revenue
11 to the base rate recovery. Oncor is not proposing any change to the structure of Rider
12 DCRF.

13 The TCRF charge permits the Company to recover the cost of network
14 transmission rates approved or allowed by the Commission that include ERCOT
15 transmission access fees in between rate cases, reducing regulatory lag. By way of a
16 demonstration of the magnitude of this rider, the Company’s total transmission expense
17 is \$1.652 billion, which is nearly 40% of the Company’s proposed total electric delivery
18 revenues of approximately \$4.322 billion.³³

19 Oncor also has a non-bypassable Nuclear Decommissioning Charge that is
20 applied to all retail customers.³⁴ In the current filing, the Company is proposing that
21 the NDC be made applicable to all end-use customers in its service territory since it the

³¹ Troxle Direct at 15-22.

³² The Commission approved a settled incremental increase to the DCRF revenue requirement of approximately \$87.8 million. *See* PUC Order issued on July 30, 2021, PUC Docket No. 51996, at 7.

³³ Troxle Direct, at 20. *See also* Oncor’s Petition and Statement of Intent of Oncor Electric Delivery Company LLC for Authority to Change Rates, Filing Volume 1, at 15, Exhibit 1.

³⁴ Docket No. 50945, *Application of Comanche Peak Power Company LLC For Review Of Nuclear Decommissioning Cost Study And Funding Analysis Under 16 TAC § 25.303(f)(2)*.

1 NDC is currently not applicable to some customers. Rider EECRF allows the Company
2 to recover the costs of energy efficiency programs in a timely manner through a cost
3 recovery factor.

4 **Q. IS THE REDUCTION IN REGULATORY RISK ASSOCIATED WITH**
5 **THESE RIDERS ALREADY INCORPORATED IN YOUR ROE**
6 **ESTIMATES?**

7 A. No. As will be discussed later in my testimony, I use Mr. D'Ascendis' proxy group that
8 includes utilities from across the U.S. with different state regulatory regimes that may
9 or may not include rate adjustment riders, clauses, or mechanisms. Regulatory
10 Research Associates ("RRA") reports that two-thirds of all utilities surveyed in its
11 report have riders in place to recover costs related to energy efficiency programs similar
12 to Oncor's EECRF.³⁵ However, RRA notes that only half of all utilities in its survey
13 have adjustment mechanisms to recover transmission and delivery infrastructure costs
14 like Oncor's DCRF and TCRF.³⁶

15 **Q. WHAT OTHER ONCOR-SPECIFIC CHARACTERISTIC REDUCES**
16 **REGULATORY RISK?**

17 A. Oncor operates within ERCOT under a restructured regulatory regime in which it does
18 not own its generation, and all retail customers must obtain their generation service
19 from a competitive supplier. Since Oncor does not own generation and provides only
20 transmission and distribution services, it does not have to collect revenues associated
21 with generation service from customers and does not need to enter into purchased
22 power contracts. This regulatory framework protects Oncor from the volatile nature of

³⁵ *Regulatory Focus Topical Special Report, Adjustment clauses: A state by state overview*, Regulatory Research Associates, S&P Global Market Intelligence, July 18, 2022, at 4.

³⁶ *Ibid.*

1 wholesale electric power prices and the uncertainty associated with recovering
2 generation or purchase power costs in between rate cases.

3 **Q. IS THE REDUCTION IN REGULATORY RISK ASSOCIATED WITH**
4 **ONCOR'S REGULATORY STRUCTURE ALREADY INCORPORATED IN**
5 **YOUR ROE RECOMMENDATION?**

6 A. No. The majority of the utilities in the proxy group reside in states with electricity
7 markets that are vertically integrated (all retail customers must purchase power from
8 the franchised utility) or partially restructured (retail access is permitted to at least some
9 customer classes, however, power prices for standard-offer service remain regulated).³⁷

10 **Q. HOW DO COMMISSIONS ACROSS THE U.S. VIEW THE RISK**
11 **ASSOCIATED WITH UTILITIES THAT OPERATE IN A**
12 **RESTRUCTURED REGULATORY FRAMEWORK VERSUS A**
13 **VERTICALLY INTEGRATED REGULATORY FRAMEWORK?**

14 A. As I will discuss in greater detail later in this testimony, RRA reports that the average
15 allowed equity return for vertically integrated electric utilities in the first six months of
16 2022 was 9.47%, slightly lower than the average of 9.53% for 2021.³⁸ For electric
17 distribution-only cases, the industry average equity returns was 9.13% during the first
18 six months of 2022 versus 9.04% in 2021.³⁹ Therefore, differences in regulatory
19 structure and rate mechanisms between the Company and the proxy group must be
20 considered when providing a recommended allowed return.

21 **Q. HOW DO INVESTORS VIEW REGULATED MONOPOLIES LIKE**
22 **ELECTRIC UTILITIES?**

³⁷ *RRA Regulatory Focus: Quarterly State Regulatory Evaluations*, Regulatory Research Associates, S&P Global Market Intelligence, May 30, 2022, at 29.

³⁸ *RRA Regulatory Focus: Major energy rate case decisions in the US-January-June 2022*, S&P Capital IQ, July 27, 2022 at 3.

³⁹ *Ibid.*

1 A. According to *Value Line*, equities in the electric utility industry have fared far better
2 than the broader market averages of late; thus, this industry is living up to its reputation
3 as a defensive haven. Electric utility stocks have historically been known for their
4 earnings predictability, good dividend growth and low-price volatility. Therefore,
5 investors are willing to pay higher stock values for these types of stocks.⁴⁰

6 **Q. PLEASE BRIEFLY DESCRIBE HOW MR. D'ASCENDIS CHOOSES THE**
7 **COMPANIES FOR HIS UTILITY PROXY GROUP.**

8 A. Mr. D'Ascendis begins with a group of electric utilities that are publicly traded and
9 included in the Eastern, Central, or Western Electric Utility Group of *Value Line*
10 (Standard Editions). He then applies a series of criteria for his utility proxy group, that
11 includes companies that have at least 70% of 2021 total operating income or at least
12 70% of 2021 total assets attributable to derived regulated electric operations;
13 companies that have not publicly announced involvement in any major merger or
14 acquisition activity; companies that have not cut or omitted their common dividends
15 during the five years ended 2021; companies that have key financial metrics such as
16 beta coefficients, positive five-year dividends per share growth rate projections, and
17 consensus five-year earnings per share growth rate projections.⁴¹

18 **Q. DO YOU MAKE ANY CHANGES TO MR. D'ASCENDIS' UTILITY PROXY**
19 **GROUP?**

20 A. No. I use his utility proxy group, because the companies in his proxy group meet criteria
21 that I would have employed, such as a credit-rating criteria that requires companies in
22 the sample to have a similar credit rating as the Company and its Parent. The majority
23 of companies in my sample have an A- or BBB+ S&P credit rating.⁴² I also require

⁴⁰ *Electric Utility (Central) Industry, Value Line Investment Survey*, June 10, 2022.

⁴¹ D'Ascendis Direct at 23-24.

⁴² See Exhibit MLR-4.

1 companies in my sample to have no ongoing involvement in a major merger or
2 acquisition, and no cuts in dividend payments during the past six months, and the
3 companies in Mr. D'Ascendis' proxy group meet these criteria as well. I typically
4 exclude firms involved in any significant merger or acquisition activity because the
5 market values of such firms differ significantly from those companies not involved in
6 such activities. This difference would be reflected in a company's stock price and
7 dividend yields, which would distort the estimated cost of equity. I also exclude
8 companies that have recently cut dividend payments to shareholders because such a
9 management decision is usually perceived by investors as a sign of financial distress.

10 **Q. IN YOUR PROXY GROUP, WHICH COMPANIES DO YOU INCLUDE**
11 **FROM MR. D'ASCENDIS' UTILITY PROXY GROUP?**

12 A. I use all the utilities in Mr. D'Ascendis' utility proxy group, which includes the
13 following companies: Alliant Energy Corporation; Ameren Corporation; American
14 Electric Power Company, Inc.; Duke Energy; Edison International; Entergy
15 Corporation; Evergy, Inc.; Eversource Energy; IDACORP, Inc.; NorthWestern
16 Corporation; OGE Energy Corporation; Portland General Electric Co.; The Southern
17 Company; and Xcel Energy, Inc.⁴³

18 **Q. DO YOU HAVE ANY CONCERNS REGARDING MR. D'ASCENDIS'**
19 **PROXY GROUP OR SELECTION CRITERIA?**

20 A. Yes. In addition to providing ROE estimates using a proxy group of comparable risk
21 companies, he applies all his models using a non-price regulated companies proxy
22 group.

23 **Q. WHY IS THE USE OF THIS NON-PRICE REGULATED COMPANIES**
24 **GROUP PROBLEMATIC?**

⁴³ Id.

1 A. It is problematic because all the companies in the non-price regulated companies group
2 are not utilities and not subject to price regulation, which makes them inherently
3 incomparable to Oncor. Also, there is a general principle in the finance industry that in
4 selecting cost-of-capital comparison groups you should use industry comparables -
5 firms with as many similar characteristics as possible and at a minimum be in the same
6 industry. The most important factor being that all the companies in this group are non-
7 utilities. These companies are not subject to price regulation and may not have other
8 characteristics similar to natural monopolies, such as a single company providing
9 service in its own franchise distribution area with high infrastructure costs (or other
10 barriers to entry) to a captive customer base with inelastic demand.

11 Mr. D'Ascendis' use of his non-price regulated companies proxy group violates
12 the *Hope* standard that he quotes in his own testimony, "By that standard the return to
13 the equity owner should be commensurate with returns on investments in other
14 enterprises having corresponding risks."⁴⁴ Companies such as CSW Industrials,
15 Google, McCormick & Co., and Pfizer, Inc. are hardly comparable to an electric
16 distribution company in Texas.

17 Mr. D'Ascendis' proxy group criteria is also flawed. A key criterion for the
18 inclusion of a company to be included into the proxy group is to have a beta within plus
19 or minus two standard deviations of the average unadjusted beta of his utility proxy
20 group. Although beta is a commonly used measure of risk in the finance literature,
21 investors consider more information when comparing companies. At least when
22 selecting companies for his utility proxy group, he applied reasonable criteria such as
23 various measures of financial health and a minimum of revenue from regulated
24 operations, which he does not do in this case. Therefore, any ROE estimates derived

⁴⁴ D'Ascendis Direct, at 15.

1 using this non-price regulated companies proxy group should not be considered by the
2 Commission.

3 **VI. METHODOLOGIES**

4 **Q. WHAT METHODOLOGIES DO YOU USE TO DERIVE YOUR COST OF**
5 **EQUITY RECOMMENDATION?**

6 A. I use variants of the constant-growth DCF model to form the basis of my
7 recommendation of an 9.10% ROE for Oncor.

8 **Q. WHAT IS THE PREDOMINANT ROE MODEL UTILIZED BY**
9 **REGULATORY BODIES IN THE UNITED STATES?**

10 A. For decades, the Federal Energy Regulatory Commission (“FERC”) and public utility
11 commissions across the United States have relied primarily on the DCF model to
12 develop a range of returns earned on investments in companies with corresponding
13 risks for purposes of determining the ROE for regulated entities. Although I use
14 variants of the constant-growth DCF model, the CAPM and ECAPM, and the
15 Comparable Earnings Model, I rely on my constant growth DCF to form the basis of
16 my recommendation of an 9.10% ROE for Oncor.

17 **A. Constant-Growth Discounted Cash Flow Model**

18 **Q. PLEASE DESCRIBE THE CONSTANT-GROWTH DCF MODEL.**

19 A. The Constant-Growth DCF model is based on the dividend discount model first
20 proposed by J.B. Williams in 1938.⁴⁵ The model is based on the premise that since cash
21 dividends are the only income from a share of stock held to infinity, the value of that
22 stock will be the present value of its stream of dividends, where the discount rate is the
23 market’s required return. The model can be modified to take into account the (more

⁴⁵ J.B. Williams, *The Theory of Investment Value* (1938), at 45-48.

1 common) situation whereby shares of stock are bought and sold, producing capital
2 gains income in addition to dividend income. In order to simplify the mathematics of
3 the model, expected future dividends are represented by applying a constant growth
4 rate to the current observable dividend. Mathematically, the present value of an asset
5 (common stock) is expressed as:

6
$$P_0 = \frac{D_1}{(K-g)},$$

7 Where:

8 D_1 is the dividend payment in one year from today or the expected dividend;
9 K is the rate of return used by investors to discount future dividends; and
10 g is the growth rate of the dividend payment.

11 The estimated cost of equity, K , is specified as:

12
$$K = \frac{D_1}{P_0} + g,$$

13 Where:

14 D_1 is the expected dividend, represented by $D_1 = D_0(1 + g)$,

15 Where:

16 D_0 is the current annual dividend per share.

17 Therefore, the market return on equity capital is the sum of the dividend yield
18 (anticipated dividend payments divided by the market price) and the expected growth
19 in dividend income.

20 **Q. PLEASE DESCRIBE HOW YOU DERIVE THE DIVIDEND YIELD**
21 **COMPONENT OF YOUR DCF ANALYSIS.**

22 A. The dividend yield in my DCF analysis is the annual dividend per share over the next
23 12 months, divided by the stock price average for different historical periods ended
24 July 29, 2022. I first calculate my dividend yields using the 30-day average of closing

1 stock prices. I also use a 90-day average of closing stock prices for capturing longer
2 market trends.

3 In general, the most recent price of a security can be used to calculate the
4 dividend yield because it represents current valuations in equity markets, calculating
5 an average over time to mitigate any irregularities as necessary; however, using the
6 average of a range of dates (e.g., 30 and 90 days) helps reduce the bias that might occur
7 from day trading-driven irregularities or short-term volatility. The average 30-calendar
8 day stock price for my sample is \$76.09 per share, which is less than the 90-calendar
9 day average stock price of \$77.19 per share.⁴⁶

10 I then estimate the expected dividend yield by applying the growth rate
11 component of my Constant-Growth DCF analysis. I use three variants for calculating
12 the growth rate component that I will discuss later in my testimony. These methods
13 produce a range of expected (year-ahead) dividend yields from 3.63% to 3.70% using
14 my sample.⁴⁷

15 **Q. PLEASE DESCRIBE THE GROWTH RATE COMPONENT OF YOUR DCF**
16 **ANALYSIS.**

17 A. My first set of growth rates is based on published earnings per share (“EPS”) forecasts,
18 because investors typically view earnings growth as an indicator of future dividend
19 growth. Investors also incorporate other sources of information when setting their
20 expectations of dividend growth, which I will discuss shortly.⁴⁸

21 I calculate the estimated earnings growth rates by taking the average of
22 analysts’ forecasts (which typically cover roughly the next five years) from *Value Line*,
23 Yahoo Finance, Zacks, and CNN Money. The Yahoo Finance, Zacks, and CNN Money

⁴⁶ See Exhibits MLR-5a through MLR-6f.

⁴⁷ Id.

⁴⁸ J.B. Williams, *The Theory of Investment Value* (1938), at 47.

1 websites, which are publicly available, report results incorporating forward-looking
2 surveys of securities analysts' EPS projections. *Value Line*, in contrast, uses a historical
3 base period average value for 2019-2021 and a forecast of 2025-2027 to calculate its
4 growth rates, and is not a survey. The average expected earnings growth rate using my
5 sample of companies is 5.37%.⁴⁹ When I use only expected EPS growth rates, my proxy
6 group median DCF results range from 9.37% to 9.43%.

7 I also develop an alternative growth rate by averaging *Value Line*'s dividends
8 per share ("DPS") and book value per share ("BVPS") estimates with the previously
9 estimated earnings growth rate projections weighted equally. I include these three
10 components of growth in my alternative analysis because investors are not only
11 concerned with dividend growth but also earnings and book value growth as an
12 assurance that dividend growth will be sustained. Moreover, dividend growth rates are
13 more stable than expected earnings growth. These calculations produce an average
14 growth rate of 4.96%.⁵⁰

15 **Q. DO YOU REACH THE SAME RESULTS AS MR. D'ASCENDIS? IF NOT,**
16 **WHY DO YOUR RESULTS DIFFER FROM HIS RESULTS?**

17 A. Yes. My DCF results using only EPS growth rates are similar to Mr. D'Ascendis' DCF
18 result. Since he only uses EPS growth rates in his DCF analysis, his median proxy
19 group result of 9.21% is slightly lower than my proxy group median results of 9.37%
20 and 9.43% when I incorporate only EPS growth rates. The notable difference between
21 his median result and my results is that he uses stale stock price and EPS growth rates
22 data that is nearly five months old. Specifically, the ending period of my stock price
23 averages for both 30-day and 90-days averages is July 29, 2022, while the ending date
24 for his 60-day averages stock prices for his proxy group is March 18, 2022.

⁴⁹ See Exhibits MLR-5a and MLR-5c.

⁵⁰ See Exhibits MLR-5b and MLR-5d.

can be rewritten to assume that external sources of financing influence investor expectations of dividend growth and is represented as the following:

$$K = \frac{D_1}{P} + br + sv$$

Therefore:

$$G = br + sv,$$

Where:

G is the retention growth rate;

r is the earned rate of return;

b is the portion of retained earnings or 1 minus payout ratio;

s represents the funds raised from the sale of stock as a fraction of existing common equity; and

v is the fraction of funds raised from the sale of stock that accrues to current shareholders.

I use *Value Line* expectations regarding retention ratios and ROEs for five years into the future to derive estimates for b and r , which in turn are used to calculate the expected internal growth component, br . To incorporate external financing growth, sv , I use *Value Line* data to derive the market-to-book ratio (which is an actual, observed figure) and expected growth in the number of outstanding shares. The average sustainable growth rate for my proxy group is 4.71% (30-day stock prices) and 4.73% (90-day stock prices).⁵²

Q. DO YOU APPLY A REASONABLENESS SCREEN TO YOUR INDIVIDUAL ROE RESULTS USING THE DCF METHOD?

A. Yes. After adding the growth-rate estimate and the dividend-yield estimates for each company in my proxy group to obtain the individual ROE estimates, I examined my results for reasonableness. In lieu of relying on the average of my proxy group results

⁵² See Exhibits MLR-6c and MLR-6f.

1 for each model, I use the median. The median is the middle value of a set of data and
2 is not skewed by outliers.

3 **Q. PLEASE SUMMARIZE YOUR DCF MODEL RESULTS.**

4 A. As shown in Table 4, I employ three different methods for deriving the growth rate in
5 the DCF model, yielding three sets of estimates of the ROE for my proxy group. First,
6 I use the constant-growth DCF model using only EPS growth rates. When I assume
7 that investors are only concerned with earnings growth when valuing a company's
8 stock, thereby only using EPS growth in the DCF model, I derive ROE estimates of
9 9.43% (30-day stock prices) and 9.37% (90-day stock prices).⁵³

10 Second, I use the constant growth DCF model using EPS, DPS, and BVPS
11 growth rates. Once I allow for other sources of growth, such as DPS and BVPS growth
12 rates, to influence investors' expectations of the return on a particular equity, my
13 analyses yield lower results. For instance, adding DPS and BVPS growth results in
14 median ROE estimates of 8.58% (30-day stock prices) and 8.52% (90-day stock
15 prices).⁵⁴

16 Third, I use the sustainable-growth DCF model. When I allow for both internal
17 and external funding sources to drive growth in investor income, for my sustainable
18 growth rate model, I derive average ROE results of 7.97% (30-day stock prices) and
19 7.95% (90-day stock prices), after adjusting for reasonable growth rates.⁵⁵ The overall
20 range of ROE estimates using my DCF is 7.95% to 9.43%, with an average of 8.69%.

⁵³ See Exhibits MLR-5a and MLR-5c.

⁵⁴ See Exhibits MLR-5b and MLR-5d.

⁵⁵ See Exhibits MLR-6c and MLR-6f.

Table 4. Reno Constant Growth DCF Results (Median Results)			
Estimated Return on Equity	ROE		
DCF Methodology	30-Day Stock Price	90-Day Stock Price	Average
Constant Growth DCF (EPS Growth)	9.43%	9.37%	
Constant Growth DCF (DPS, EPS and BVPS)	8.58	8.52	
Sustainable Growth DCF	7.97	7.95	
DCF Range (Min. & Max.)^[1]	7.95%	9.43%	8.69%

^[1] ROE range (minimum and maximum values) for the 30-day and 90-day DCF results.

1 **Q. DO YOU REACH THE SAME RESULTS AS MR. D'ASCENDIS? IF NOT,**
2 **WHY DO YOUR RESULTS DIFFER FROM MR. D'ASCENDIS' RESULTS?**

3 A. Table 4 shows my proxy group median DCF results that range from 7.95% to 9.43%
4 with an average of 8.69%. These results are lower than Mr. D'Ascendis' DCF results
5 that range from 8.89% to 9.21% for an average of 9.05%. Had he incorporated other
6 growth rates in addition to EPS growth rates, his average result would be similar to my
7 average of 8.69%.

8 **C. Capital Asset Pricing Model**

9 **Q. DO YOU USE ANY OTHER METHODOLOGIES TO ESTIMATE THE ROE**
10 **FOR THE COMPANY?**

11 A. Yes. Like Mr. D'Ascendis, I apply the CAPM and the ECAPM to derive a total of six
12 ROE estimates.

13 **Q. DESCRIBE THE CAPM YOU ALSO USE TO CALCULATE THE COST OF**
14 **EQUITY.**

15 A. The CAPM is a version of the "risk premium" approach that is rooted in modern
16 portfolio theory. It recognizes that common equity capital is riskier than debt from an
17 investor's perspective, and that investors require higher returns on stocks than on bonds

1 to be compensated for the additional risk.⁵⁶ The cost of common equity is represented
2 by the following equation:

3
$$K_e = R_f + \beta_s * RP,$$

4 Where:

5 K_e is the cost of equity;

6 R_f is the yield on risk-free securities;

7 RP is the Equity Risk Premium (“ERP”) demanded by shareholders to accept
8 equity relative to debt; and

9 β_s or Beta coefficient (“Beta”) is a company-specific measure that reflects the
10 movement in a company’s stock price relative to movements in a composite
11 group of companies representing the stock market. Beta measures the
12 investment risk that cannot be eliminated by holding a diverse portfolio of
13 assets.

14 **Q. PLEASE DESCRIBE THE RISK-FREE RATE YOU USE IN YOUR CAPM**
15 **ANALYSIS.**

16 A. The first term in the CAPM is the risk-free rate (R_f). I use the yield on the 30-year
17 Treasury bond observed over a recent 90-day period ended July 29, 2022 of 3.14%,
18 based on recent market information.⁵⁷ I also include in one of my CAPM analyses the
19 Kroll (formally Duff & Phelps) Normalized Risk-Free Rate of 3.50%.⁵⁸

20 **Q. DOES YOUR RISK-FREE RATE DIFFER FROM THE RISK-FREE RATE**
21 **USED BY MR. D’ASCENDIS?**

22 A. Yes. Mr. D’Ascendis relies on a series of forecasted rates provided by *Blue Chip*
23 *Financial Forecasts* (“*Blue Chip*”) with an average rate of 2.89%. These rates do not
24 reflect current market rates of 3.14%, using the 90-day average of the yield on the 30-

⁵⁶ The CAPM is generally superior to the simple risk premium method because the CAPM recognizes the risk of a particular company or industry through the use of beta, whereas the simple risk premium method assumes the same risk premium for all companies exhibiting similar bond ratings.

⁵⁷ Federal Reserve, *Selected Interest Rates (Daily)*, available at <https://www.federalreserve.gov/releases/h15/>

⁵⁸ *Kroll Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher*, *Effective June 16, 2022*; Client Alert, Issued June 15, 2022

1 year Treasury bond, ended July 29, 2022. Mr. D'Ascendis' risk-free rates are also lower
2 than published forecasts of the expected risk-free rate of 3.50% published by Kroll.

3 **Q. HOW DO YOU CALCULATE THE ERP?**

4 A. In each of my three CAPM analyses, I use different estimates of the ERP that range
5 from 5.50% to 7.46%. For the high end of this range, I use the Kroll estimate of
6 historical arithmetic average real market return over the period 1926 to 2021, which is
7 the total return on common stocks (S&P 500) including capital appreciation, less the
8 income returns on Treasury bond investments.⁵⁹

9 Kroll also provides an updated Ibbotson & Chen supply-side model, which
10 found that the market risk premium based on the S&P 500 was influenced by an
11 abnormal experience of price-to-earnings ("P/E") ratios relative to earnings and
12 dividend growth over the last 30 years. Thus, Kroll adjusted this market risk premium
13 and published a long-horizon supply-side ERP of 6.22%.⁶⁰

14 Kroll also recommends a forward-looking ERP that was derived in conjunction
15 with a normalized risk-free rate. Thus, my final CAPM analysis uses the Kroll
16 Recommended US ERP of 5.50% and Normalized Risk-Free Rate of 3.50%.⁶¹
17 Therefore, the estimated ERP used across my three CAPM methods ranges from 5.50%
18 to 7.46%. This range is within the historical range of 5% to about 8% found in the
19 finance literature.⁶²

20 **Q. DO YOU CALCULATE YOUR ERP IN THE SAME WAY AS MR.**
21 **D'ASCENDIS?**

⁵⁹ See Exhibit MLR-7a. See also Kroll, *2022 SBBI Yearbook, Stock, Bonds, Bills and Inflation*, Exhibits 10.8 and 10.9, at 199.

⁶⁰ See Exhibits MLR-7c and MLR-7d. See also Kroll, *2022 SBBI Yearbook, Stock, Bonds, Bills and Inflation*, Exhibit 10.14, at 210.

⁶¹ See Exhibits MLR-7e and MLR-7f. See also Kroll *Increases U.S. Normalized Risk-Free Rate from 3.0% to 3.5%, but Spot 20-Year U.S. Treasury Yield Preferred When Higher, Effective June 16, 2022: Client Alert*, Issued June 15, 2022.

⁶² Richard Brealy et al., *Principles of Corporate Finance*, 2017, at 164.

1 A. No. While I rely on historical market return data, he places greater emphasis on market
2 returns using 2022 data, which inflate his average market risk premium of 9.84%. Mr.
3 D'Ascendis' market risk premium is derived from an average of three historical data-
4 based market risk premiums, two Value Line data-based market risk premiums, and
5 one Bloomberg data-based market risk premium.⁶³

6 **Q. WHY ARE YOU CONCERNED ABOUT MR. D'ASCENDIS' MARKET RISK**
7 **PREMIUMS?**

8 A. Mr. D'Ascendis' highest market risk premiums are based on market returns from 2022.
9 Although the S&P 500 is a popular index used by the investment community to
10 estimate overall market returns, relying on March 2022 expected returns overestimate
11 investors' expected returns looking forward. Moreover, he estimates these expected
12 returns using the DCF with only EPS growth rates. As I showed in the previous section
13 of this testimony, using only EPS growth rates produce higher return estimates than
14 using other types of growth rates, such as DPS, BVPS, and sustainable growth rates.
15 Specifically, his DCF analysis using *Value Line* data yields a projected total return of
16 the S&P 500 index of 16.14% and a resulting equity risk premium of 13.25%. His DCF
17 analysis using *Bloomberg* data produces a projected total return of the S&P 500 of
18 14.6% and an equity risk premium of 11.71%.⁶⁴

19 Mr. D'Ascendis' estimates far exceed investors' current expectations of equity
20 returns and only serve to inflate his average equity risk premium and resulting ROE
21 estimates. Market analysts have recently stated that the current expectation of
22 annualized U.S. equity market returns range from 5% to 8%. Moreover, the Federal
23 Reserve Bank of Philadelphia reported earlier this year that the average (mean) forecast

⁶³ D'Ascendis Direct at 48-49.

⁶⁴ Id at 49.

1 of expected stock returns (S&P 500) over the next ten years is 6.91%, with a maximum
2 of 10.4%.⁶⁵

3 **Q. HOW DO YOU ACCOUNT FOR THE VARIABILITY IN EQUITY**
4 **MARKETS?**

5 A. To capture investors' expected equity market returns, I focus on longer trends in stock
6 market returns from 1928 to 2021. This period shows annual stock returns over multiple
7 business cycles, avoiding the influence of any given period.⁶⁶

8 **Q. HOW DO YOU ADJUST THE EQUITY RISK PREMIUM TO ACCOUNT**
9 **FOR COMPANY-SPECIFIC RISK?**

10 A. I multiply company-specific betas to the equity risk premiums to account for company-
11 specific risk. Specifically, I rely on *Value Line* betas because *Value Line* is widely used
12 by the utility regulatory community and investment community in general. It is also
13 known that *Value Line* adjusts its betas to account for the long-term tendencies of
14 stocks to converge to a beta of one (1.0).⁶⁷ As a result, *Value Line* betas tend to have
15 higher values than betas provided by some other sources. The average *Value Line* beta
16 for my proxy group is 0.87. A beta value of 0.87 means that the stock price movement
17 is less than the movement in percentage terms than the stock market as a whole. The
18 price of electric utility stock is, therefore, less volatile than the overall market.

19 **Q. DO YOUR BETA MEASURES DIFFER FROM MR. D'ASCENDIS' BETAS?**

20 A. Yes. Although we both use the *Value Line* electric utility beta coefficients, our proxy
21 group averages differ slightly because his data is stale and does not reflect current

⁶⁵ Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters: First Quarter 2022* at 19, Table 9.

⁶⁶ A business cycle typically includes an expansion and a recession that can vary in duration. Visit the following website for more information. [US Business Cycle Expansions and Contractions | NBER](https://www.federalreserve.gov/econres/notes/2014/US-Business-Cycle-Expansions-and-Contractions-NBER-2014-03-10.htm)

⁶⁷ Marshall Blume investigated the regression tendency of betas and reached the conclusion that betas have the tendency to approach a value of one (1) over time. That is, high-beta portfolios tend to decline over time toward one (1), while low-beta portfolios increase to one (1). Marshall Blume, "Betas and Their Regression Tendencies," *Journal of Finance* (1975) at 785-796.

1 market conditions. If he were to update his proxy group betas, his average *Value Line*
2 Betas would decrease from 0.89 to 0.87. Mr. D'Ascendis also uses beta coefficients
3 from *Bloomberg Professional Services* ("*Bloomberg*"), resulting in a proxy group
4 average beta of 0.98.

5 **Q. WHAT IS THE DIFFERENCE BETWEEN THE VALUE LINE BETA**
6 **COEFFICIENTS AND THE BLOOMBERG COEFFICIENTS?**

7 A. The primary difference in the *Value Line* and *Bloomberg* betas is that *Value Line* betas
8 measure the relationship between company specific stock prices relative to the market
9 over five years while the *Bloomberg* betas measure this same relationship over only
10 two years. Betas based on only two years of market data exacerbate the increased
11 market volatility over the last couple years, in particular early 2020 market turmoil, and
12 investors' flight to safe haven stocks such as utility stocks. Thus, the *Bloomberg* beta
13 measures using only recent data will yield higher results that inflate Mr. D'Ascendis'
14 ROE estimates.

15 **D. Empirical Capital Asset Pricing Model**

16 **Q. DO YOU PERFORM ADDITIONAL CAPM ANALYSES?**

17 A. Yes. The simple CAPM has been criticized for underestimating the ROE for companies
18 with betas less than 1 and overestimating the ROE for companies with betas greater
19 than 1. Therefore, use of the ECAPM has gained popularity as a means to correct this
20 under- or over-estimation problem, by applying an adjustment factor to increase the
21 intercept and reduce its slope.

22 **Q. PLEASE EXPLAIN THE ECAPM THAT YOU USE IN YOUR ANALYSES.**

23 A. The ECAPM that I apply includes an adjustment factor "x" as shown in the following
24 modified CAPM equation.

25
$$K_e = R_f + x(RP) + (1 - x)\beta(RP)$$

1 Where:

2 The x-term multiplied by the risk premium increases the intercept (the risk-free
3 rate), while (1-x) decreases the slope of the equation.

4 **Q. HOW IS THE VALUE OF X DETERMINED?**

5 A. X is equal to 0.25, such that (1-X) is 0.75. Therefore, the only difference between the
6 traditional CAPM and the ECAPM is that the beta-adjusted ERP is weighted by 0.75,
7 while the market risk premium is weighted by 0.25, resulting in the following equation.

8
$$K_e = R_f + 0.25(RP) + 0.75\beta(RP)$$

9 **Q. WHAT ARE THE RESULTS OF YOUR ECAPM ANALYSES?**

10 A. Applying the same risk-free rates, market risk premium, and betas from the proxy
11 group, I estimate expected returns ranging from 8.45% to 9.86%.

Table 5. Capital Asset Pricing Models – Estimated Return on Equity

	ERP	Beta- Adjusted ERP	Risk- Free Rate	CAPM ROE	ECAPM ROE
CAPM (Hist. L-T ERP)	7.46	6.47	3.14	9.61%	9.86%
CAPM (Supply-Side ERP)	6.22	5.40	3.14	8.54%	8.74%
CAPM (Kroll Recommended ERP)	5.50	4.77	3.50	8.27%	8.45%

12 **Q. DO YOU REACH THE SAME RESULTS AS MR. D'ASCENDIS? IF NOT,**
13 **WHY DO YOUR RESULTS DIFFER FROM MR. D'ASCENDIS' RESULTS?**

14 A. My results shown in Table 5 are lower than Mr. D'Ascendis' CAPM and ECAPM
15 results, which range from 12.06% to 12.23%, respectively. His preference for inflated
16 market equity risk premiums inflate his CAPM and ECAPM estimates.

17 **Q. DO YOU HAVE ANY CONCERNS REGARDING MR. D'ASCENDIS'**
18 **ECAPM RESULTS?**

1 A. Yes. Given the similarities between the mechanics for the CAPM and the ECAPM,
2 coupled with his erroneous beta coefficients and inflated expected market returns, this
3 model yields overstated ROE results.

4 **Q. DO YOU HAVE ANY OTHER CONCERNS REGARDING MR.**
5 **D’ASCENDIS’ ROE METHODOLOGIES?**

6 A. Yes. In addition to his focus on earnings growth in his DCF, misuse of inappropriate
7 and inflated market equity returns and resulting estimated proxy group specific returns,
8 as discussed earlier in this testimony, he also wrongly applies his risk premium model.

9 **Q. HOW DOES MR. D’ASCENDIS APPLY THE RISK PREMIUM MODEL?**

10 A. Mr. D’Ascendis’ risk premium model (“RPM”) is a composite of several models that
11 are based on the concept of adding a premium to a low-risk debt asset like a bond to
12 compensate an investors for assuming risk. His RPM result is an average of several
13 subordinate analyses that fall into two categories – his predictive risk premium model
14 (“PRPM) and his total market approach.

15 **Q. WHAT IS PROBLEMATIC ABOUT HIS RPM MODELS?**

16 A. The PRPM uses a statistical modeling technique known as generalized autoregressive
17 conditional heteroskedasticity (“GARCH”). The GARCH model is a relatively
18 unknown model that seems to ignore basic tenets of finance. The GARCH model was
19 developed by Mr. D’Ascendis and several senior executives at his previous employer,
20 Associated Utilities Services. The PRPM uses the return volatility, measured as the
21 standard deviation or variance, of each company asset on its own but not relative to the
22 market as a whole. As a result, the PRPM’s cost of equity estimates reflect “all of the

1 risk that investors actually face.”⁶⁸ Thus, the model reports the risk investors faces
2 whether it is systematic risk or not.⁶⁹

3 This assumption that expected returns are correlated with total risk is not
4 supported by basic finance principles. There is no clear relationship between volatility
5 and return of individual securities because returns are not correlated to total risk due to
6 the benefits of diversification in reducing risk. Not all risk can be eliminated through
7 the diversification of a portfolio of many diverse assets, but a significant portion can.
8 If the diversifiable risk of stocks earned an additional risk premium, then investors
9 would buy such stocks only to sell at a premium. Over time, however, this opportunity
10 to earn something for nothing would be quickly exploited and eliminated. The
11 remaining portion is known as systematic or non-diversifiable risk and can be thought
12 of as the risk of the market overall, represented by a broad market index like the S&P
13 500. Since the PRPM assumes the fallacy that expected returns should reflect total risk
14 not just systemic risk, estimates derived using this model overestimates investors’
15 expected returns. Therefore, the Commission should not consider any estimated ROEs
16 using this method.

17 **E. Comparable Earnings Model**

18 **Q. DO YOU EMPLOY OTHER METHODOLOGIES FOR YOUR ROE**
19 **ESTIMATE FOR THE COMPANY?**

20 A. Yes. I use the Comparable Earnings Model (“CEM”). A CEM estimate is derived from
21 the “corresponding risk” standard of the *Hope* and *Bluefield* cases and is based on the
22 economic concept of opportunity cost. The cost of capital is an opportunity cost

⁶⁸ Michelfelder, Ahern, D’Ascendis, Hanley, “Comparative Evaluation of the Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for Estimating the Cost of Common Equity,” *The Electricity Journal*, 6:4 (May 2013), p. 85.

⁶⁹ Ahern, Hanley, Michelfelder, “New Approach for Estimating the Equity Risk Premium for Public Utilities,” *The Journal of Regulatory Economics*, 40 (2011), p. 274.

1 whereby a company's return represents a return available from alternative investments
2 of similar risk. I use the CEM by examining realized ROEs for my proxy group and
3 comparing investor acceptance of these returns via corresponding market-to-book
4 ("M/B") ratios. The M/B ratio is the stock price divided by the BVPS and shows the
5 degree to which a given level of ROE equals the cost of capital. An M/B of greater than
6 one (1) shows that a company can attract new equity capital without dilution.

7 Using market-based information via the M/B ratios, I show that historical ROEs
8 have attracted investors to purchase shares of utility stock. I calculate historical M/B
9 ratios using average annual stock prices and the *Value Line* reported BVPS data from
10 2012 through 2021.⁷⁰ My results show that the companies in my proxy group were
11 successful in attracting investors given reported historical, book value-derived ROEs.
12 Even in cases where a company's ROEs were as low as 6.90% (as in the case of Duke
13 Energy Corp.), a company's stock was valued higher than book value as demonstrated
14 by M/B ratios greater than one (1) at 1.35. For my proxy group, the average M/B ratio
15 is 1.73 and median historical ROE is 9.83%. By way of comparison, the median *Value*
16 *Line* forecasted ROE (2025-2027) for my sample is 10.50%.⁷¹

17 **Q. HOW DO YOUR CEM RESULTS RELATE TO YOUR DCF, CAPM, AND**
18 **ECAPM RESULTS?**

19 A. My CEM results demonstrate that my ROE estimates discussed earlier reflect current
20 market expectations and will attract investors.

21 **Q. DO YOU RELY ON ANY ONE MODEL MORE THAN THE OTHERS?**

22 A. Yes. Although I employ the DCF, CAPM, and the CEM models for estimates, my
23 recommended ROE is based on estimates derived using the DCF model.

⁷⁰ See Exhibit MLR-8c.

⁷¹ See Exhibit MLR-8e.

1 **Q. WHY IS YOUR ROE RECOMMENDATION OF 9.10% BASED ON A**
2 **RANGE DERIVED FROM YOUR DCF METHODOLOGIES?**

3 A. I place more emphasis on my DCF-derived results because it is widely used by both
4 the finance community and public utility commissions across the U.S. and yields more
5 reliable results. It is a forward-looking model that directly incorporates investors'
6 expectations of company dividend income through market pricing signals, particularly
7 in the case of utility stocks where stock valuations are telling a different story than the
8 general market.

9 The CAPM model, in contrast, is largely reliant on financial market outcomes
10 complicated by monetary policy and near historically low interest rates. These low
11 interest rates have persisted many years longer than anticipated. Despite current
12 inflationary trends and recent decisions by the Federal Reserve to increase short-term
13 rates, low interest rates on long-term bonds persist. However, I rely on my CAPM,
14 ECAPM, and CEM results as a reasonableness check. Moreover, my recommendation
15 of 9.10% is further supported by my CAPM and ECAPM average of 9.07%.

16 **Q. HOW DOES YOUR RECOMMENDATION COMPARE TO MR.**
17 **D'ASCENDIS' RECOMMENDATION?**

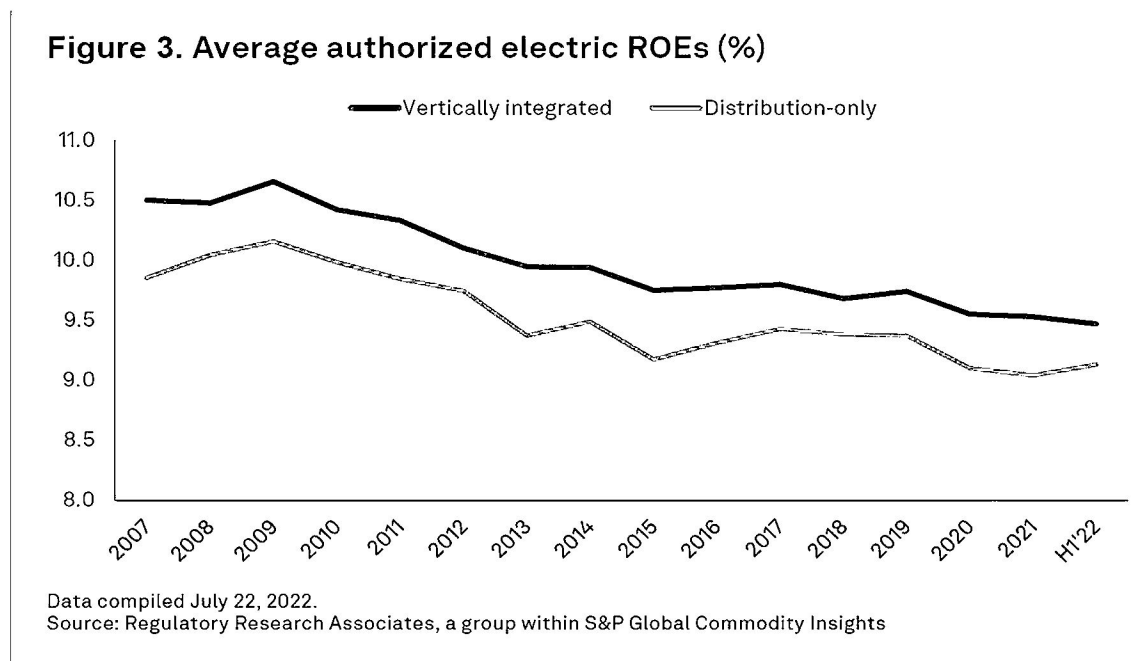
18 A. My recommendation is based on the average of the range of my DCF results and closely
19 matches the average estimates of all my models. In contrast, Mr. D'Ascendis does not
20 specify the extent in which model or models he relies on to derive his range of 9.60%
21 to 11.60% and resulting recommendation of 10.30%. Although he states that the
22 analyses supporting his recommendation include his estimates using the DCF model,
23 CAPM, ECAPM, and Risk Premium analyses, he fails to provide specific weights. In
24 fact, he seems to exclude his DCF-derived estimates entirely since his average DCF
25 estimate is 9.05% and falls below the minimum of his range.

1 **Q. HOW DOES YOUR RECOMMENDATION COMPARE TO RECENTLY**
2 **ALLOWED EQUITY RETURNS?**

3 A. RRA reports that the average allowed equity returns for vertically integrated electric
4 utilities in the first six months of 2022 was 9.46%, slightly lower than the average of
5 9.53% for 2021. For electric distribution-only cases, the industry average equity returns
6 was 9.13% during the first six months of 2022 versus 9.04% in 2021.⁷² Figure 3 shows
7 that the average allowed ROE for vertically-integrated and distribution-only electric
8 utilities have decreased over the last decade and continued to decline over the first half
9 of 2022 (referred to as H1'22). The last time the average was near Mr. D'Ascendis'
10 recommendation of 10.30% was in 2009 (Distribution-only) and 2011 (Vertically
11 integrated).⁷³ My recommended ROE of 9.10% is only six basis points higher than the
12 2021 average allowed ROE for electric distribution-only companies. My
13 recommendation is more in line with recent allowed equity returns than Mr.
14 D'Ascendis' recommendation because allowed ROEs in general have been decreasing
15 and have been below 10% since 2013.

⁷² *RRA Regulatory Focus: Major energy rate case decisions in the US-January-June 2022*, S&P Global Market Intelligence, July 27, 2022 at 8. See also *Major energy rate case decisions in the US*, S&P Global Market Intelligence excel file, Table 3.

⁷³ *Id.*



Source: RRA Regulatory Focus: Major energy rate case decisions in the US-January-June 2022, S&P Capital IQ, July 27, 2022 at 8.

Q. HOW DOES MR. D’ASCENDIS’ RECOMMENDATION COMPARE TO RECENTLY ALLOWED EQUITY RETURNS?

A. Mr. D’Ascendis’ recommended ROE of 10.30% is 117 basis points higher than the average allowed ROE for electric distribution utilities in 2022. Additionally, authorized ROEs for electric utilities have been decreasing since the peak reached in 2009. Thus, if the Commission granted Mr. D’Ascendis’ recommended ROE, it would be an extreme outlier relative to the average allowed ROE for distribution-only electric utilities throughout the U.S.

VII. SUMMARY AND RECOMMENDATION

Q. WHAT DO YOU RECOMMEND FOR ONCOR’S OVERALL ROR AND AUTHORIZED ROE?

A. For Oncor, I recommend an overall ROR of 6.50%, based on an ROE of 9.10%, an embedded cost of long-term debt of 4.39%, and a capital structure comprised of 55.01%

1 long-term debt. As shown in Table 6, my ROE recommendation is based on an ROE
2 of 9.06% that is the average of my recommended DCF range of 8.69% to 9.43% and
3 represents a fair and reasonable ROE for Oncor for the reasons I have previously
4 discussed.

5 My results are derived using a proxy group of electric utilities representing the
6 opportunity cost of investing in Oncor assets. My results best represent the opportunity
7 cost of capital that an investor expects under today's financial circumstances.

Table 6. ROE Estimates (%)			
DCF Methodology	30-Day Stock Price	90-Day Stock Price	Average
Constant Growth DCF (EPS Growth)	9.43	9.37	
Constant Growth DCF (DPS, EPS and BVPS)	8.58	8.52	
Sustainable Growth DCF	7.97	7.95	
DCF Range:	7.95	9.43	8.69
CAPM & ECAPM Methodology	CAPM	ECAPM	
Capital Asset Pricing Model (Lg. Stock ERP, 30-yr T-Bond Rate)	9.61	9.86	
Capital Asset Pricing Model (Supply-Side ERM, 30-yr T-Bond Rate)	8.54	8.74	
Capital Asset Pricing Model (D&P Normalized Rate)	8.27	8.45	
CAPM Range:	8.27	9.86	9.07
Comparable Earnings Methodology			
Comparable Earnings Model (Historical ROE)	9.83		
Comparable Earnings Model (Adjusted ROE)	10.76		
Comparable Earnings Model (VL Forecasted ROE 25-27)	10.50		
CEM Range:	9.83	10.76	10.29
Summary			
DCF-Based ROE Average			8.69
All-Model ROE Average			9.35
	Min	Max	Midpoint
ROE Range	8.69	9.43	9.06
Recommended ROE (%)			9.10

1 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

2 A. Yes, it does. However, I reserve the right to supplement my testimony as new
3 information becomes available.

APPENDIX A: CURRICULUM VITAE AND QUALIFICATIONS

Maureen L. Reno

Maureen Reno is a seasoned expert with nearly 20 years of experience in the field of public utility regulation. After she completed her Ph.D. studies in Economics at the University of New Hampshire, Ms. Reno launched her career in public utility regulation as a utility analyst and program manager at the New Hampshire Public Utilities Commission, where she worked for the next 10 years. In this capacity, she provided expert testimony on rate of return (to include return on equity) in electricity, natural gas, and water utility rate cases. Ms. Reno also led the development and implementation of New Hampshire's Renewable Portfolio Standard program, helping both owners of distributed generation and load serving entities meet compliance requirements and maneuver the dynamic wholesale energy and renewable energy certificate markets. In addition, she managed New Hampshire's participation in the Regional Greenhouse Gas Initiative. Finally, Ms. Reno served as an expert witness on financial issues regarding the regulation of electric, natural gas, and water utilities, to include cost of capital and return on shareholder equity.

Subsequently, Ms. Reno served as a Senior Energy Economist with the Union of Concerned Scientists. In this capacity, she developed clean energy financing policies and advocated for electricity sector solutions to global warming.

Since 2012, Ms. Reno has served as an independent consultant, working with other small businesses to advise government and industry clients on diverse utility-related matters. In addition, she has served as an expert witness on rate design and rate of return (to include return on equity) in numerous cases. Her testimony has been presented to public utility commissions across the United States, to include the Arizona Corporation Commission, Georgia Public Service Commission, Missouri Public Service Commission, the New Mexico Public Regulation Commission, the Oklahoma Corporation Commission, and the Texas Public Utility Commission. Ms. Reno's testimony has been consistently accepted by public utility commissions.

Ms. Reno stays abreast of the latest developments in utility regulatory law and policy through her research and professional activities. Given the complexity of Federal and state regulations that affect her clients, Ms. Reno dedicates significant time and energy to reviewing regulatory developments enacted by the U.S. Department of Energy, the Federal Energy Regulatory Commission (FERC), and the U.S. Environmental Protection Agency. For instance, Ms. Reno recently evaluated Maryland's RPS in light of FERC rulings on PJM's Capacity Auction to assess the financial viability of renewable energy projects within Maryland.

EDUCATION

- Completed all course work and exam requirements towards the Doctorate of Philosophy in Economics – University of New Hampshire, Durham.
Fields of Specialization: Industrial Organization and Environmental Economics
- Master of Arts in Economics – University of New Hampshire, Durham, 1998
- Bachelor of Arts in Economics – University of Maine, Orono, 1996

PROFESSIONAL EXPERIENCE

- Independent Consultant (2012-Present)
- Senior Energy Economist, Union of Concerned Scientists (2011-2012)
- Analyst, Program Manager, Utility Analyst, and Economist, New Hampshire Public Utilities Commission (2001-2011)
- Survey Manager, New Hampshire Small Business Development Center (1999-2001)
- Adjunct Instructor, University of New Hampshire (1999-2001)

PROFESSIONAL WORK

As an independent consultant for Exeter Associates Inc., Ms. Reno:

- Preparing the financial analysis and ratepayer impacts of a long-term contract requirement under Maryland's RPS for the Power Plant Research Program (PPRP) on behalf of the Maryland Department of Natural Resources.
- Evaluated utility proposals for deployment, cost-benefit analysis, and cost recovery of Maryland's Statewide Electric Vehicle Portfolio on behalf of the Maryland Energy Administration through the PPRP in Case No. 9478 In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio.
- Provided written and oral testimony on behalf of large federal executive agencies, such as the U.S. Department of Defense and the U.S. Department of Energy, in electric utility rate cases before the Corporation Commission of Oklahoma, the Public Utility Commission of Texas and the Missouri Public Service Commission. Assessed each utility's weighted average cost of capital and estimated the rate of return on equity using discounted cash flow, risk premium, and capital asset pricing models.
- Conducted research and drafted sections of regional energy market operations manuals for the US Department of Energy's Federal Energy Management Program. The reports focused on how federal facilities were pursuing renewable energy development under the different market constructs, such as by vertically integrated electric utilities, electric utilities with the PJM footprint, and electric utilities in California, and how those market constructs affected the prospects for future renewable energy development.

As an independent consultant for TAHOEconomics LLC, Ms. Reno:

- Provided written and oral testimony and legal briefs on behalf of the City of Clovis, New Mexico, in a water utility rate cases before the New Mexico Public Regulation Commission. Assessed EPCOR Water New Mexico Inc.'s weighted average cost of capital and estimated the rate of return on equity using discounted cash flow, risk premium, and capital asset pricing models.

As an independent consultant for Stephenson Strategic Communications, LLC, Ms. Reno:

- Provided consulting services to build support in New Hampshire for strong national climate and energy policies on behalf of a nationally recognized, non-profit environmental organization.
- Mobilized experts and leaders in New Hampshire to engage elected federal, state and locals official through targeted Senator visits, media interviews, public events, letters to the editor, and opinion and editorial articles.
- Communicated directly with targeted legislators and their staff to determine their positions on climate and clean air policies and address their concerns.

As an independent consultant for TrueLight Energy, LLC, Ms. Reno:

- Acted as director of regulatory affairs to expand upon current services to provide clients with guidance on how to navigate the dynamic deregulated electricity industry.
- Developed regulatory service product for clients, which includes ISO/utility tariff tracking and rate impact analysis, policy analysis, new market identification and participation in regulatory processes.
- Identified and originated new commercial opportunities in the U.S. to support principle product/service lines: retail supplier solutions; generation asset management; and sustainability management solutions for large energy users.
- Developed and implemented business development and business-to-business marketing strategies in coordination with senior management.

As a senior economist at the Union of Concerned Scientists, Ms. Reno:

- Promoted the development of clean energy technologies and policies in the electricity sector. Designed and evaluated energy policies at the state, regional, and national levels to maximize economic benefits and overcome market barriers to renewable energy.

- Evaluated and developed alternative financial policies to national and state renewable energy standards. Completed internal documents and research focusing on master limited partnerships and real estate investment trusts as possible sources of financing capital for renewable energy projects.
- Informed and enhanced coalition strategies by evaluating and developing appropriate responses to federal policy opportunities, including a low-carbon electricity standard, production tax credit, and other emerging opportunities.
- Evaluated the net benefits and opportunities for economic development in renewable energy manufacturing and the supply chain.

As an analyst and program manager at the New Hampshire Public Utilities Commission, Ms. Reno:

- Developed and managed New Hampshire's RPS Program.
- Developed internal protocols for managing New Hampshire's RPS program pursuant to PUC's RPS program rules (N.H. Code of Administrative Rules PUC 2500), including designing resource eligibility application forms.
- Verified electricity providers' compliance with New Hampshire's RPS program and processed applications for renewable energy source eligibility.
- Prepared and submitted annual RPS compliance reports, including program evaluation and policy analysis, to the State legislature on behalf of the PUC.
- Monitored and forecasted renewable energy certificate market trends in New England and New Hampshire to estimate available revenues supporting rebate programs.
- Maintained an RPS program website and renewable energy sources database.
- Participated in various regional working groups, including the RGGI Allowance and Offset Market Groups, and the GIS Regulators' Caucus to develop and maintain the NEPOOL GIS Operating Rules.
- Developed Greenhouse Gas Emissions Reduction Fund Cost Effectiveness Analysis model for request for proposal applicants.

As a utility analyst and economist at the New Hampshire Public Utilities Commission, Ms. Reno:

- Reviewed, analyzed and prepared oral and written recommendations in eight electric, natural gas and water utility rate cases in which she calculated each

company's weighted average cost of capital and estimated the rate of return on equity using discounted cash flow, risk premium, and capital asset pricing models.

- Advised the PUC on utilities' debt financings, bond issuances, power plant retrofit, advanced/net metering, demand response, environmental disclosure, and incentives for in-state energy efficiency programs.
- Collaborated on behalf of the PUC with public and private entities to write New Hampshire's RPS law (HB 873), state participation in RGGI (HB 1434) and the PUC's RPS program rules (N.H. Code of Administrative Rules Puc 2500).
- Advised the Commissioners on the development of the RGGI carbon dioxide emission limits and the Allowance Auction Market.
- Prepared fiscal impact statements regarding proposed legislation and regulations in the State of New Hampshire using cost-benefit analysis.

As a Survey Manager for the New Hampshire Small Business Development Center, Ms. Reno:

- Designed and distributed a survey to collect data on the characteristics of New Hampshire manufacturers.
- Managed collection of survey data, designed a database for the data collected and oversaw data entry efforts.
- Analyzed the economic and behavioral factors that lead to the growth of New Hampshire manufacturing companies using multivariate regression, factor and cluster analysis of survey data.

As an Adjunct Instructor for the University of New Hampshire, Ms. Reno:

- Taught undergraduate courses in Principles of Macroeconomics and Microeconomics, including lectured on a daily basis, and developed lesson plans and teaching materials.
- Managed teaching assistant's work correcting and grading testing materials and writing assignments.

UTILITY LITIGATION

State	Client	Citation/Utility	Industry	Topics
New Hampshire	Office of the Consumer Advocate (OCA)	DE 21-078/ Eversource	Electric	Electric Vehicle Make-Ready and Demand Charge Alternative
Alaska	U.S. Department of Defense (DOD)	U-21-070/U-21-071/ Golden Heart Utilities, Inc. and College Utilities Corporation	Water, Wastewater	Cost of Capital and Return on Equity
New Hampshire	OCA	DG 21-104/ Northern Utilities, Inc.	Natural Gas	Rate Design: Revenue Decoupling Adjustment Mechanism and Impacts on Risk
New Hampshire	OCA	DG 21-036/ Liberty Utilities	Natural Gas	Cost-Effectiveness of a Renewable NG Supply Agreement
Texas	DOD	52195/ El Paso Electric Company	Electric	Cost of Capital and Return on Equity
New Mexico	Bernalillo County (BC)	20-00222-UT/ Public Service Co. of New Mexico	Electric	Mergers & Acquisitions: Benefits and Risks
New Mexico	BC	20-00121-UT/ Public Service Co. of New Mexico	Electric	Rate Design: Decoupling Mechanism
New Mexico	Public Regulation Commission Staff	19-00170-UT/ Southwestern Public Service Company	Electric	Cost of Capital and Return on Equity
Georgia	DOD	42516/ Georgia Power Company	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Arizona	DOD	E-01933A-19-0028/ Tucson Electric Power Company	Electric	Cost of Capital and Return on Equity
New Mexico	City of Clovis, NM	18-00124-UT/ EPCOR Water New Mexico Inc.	Water	Cost of Capital and Return on Equity
Oklahoma	DOD	PUD 201700151/ Public Service Co. of Oklahoma	Electric	Cost of Capital and Return on Equity
Oklahoma	DOD	PUD 201500208/ Public Service Co. of Oklahoma	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Texas	U.S. Department of Energy (DOE)	43695/ Southwestern Public Service Company	Electric	Cost of Capital and Return on Equity
Missouri	DOE	ER-2014-0370/ Kansas City Power & Light Co.	Electric	Cost of Capital and Return on Equity
Texas	DOE	41791/ Entergy Texas, Inc.	Electric	Cost of Capital and Return on Equity

New Hampshire	Public Utilities Commission (PUC)	DE 05-178/ Unitil Energy Systems, Inc.	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 04-177/ Public Service Co. of New Hampshire (generation assets)	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DW 04-056/ Pennichuck Water Works, Inc.	Water	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 03-200/ Public Service Co. of New Hampshire	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 03-166/ Public Service Co. of New Hampshire	Electric	Financial Incentives Associated with a Power Plant Retrofit from Coal to Biomass
New Hampshire	PUC	DE 01-247/ Concord Electric Co. and Exeter & Hampton Electric Co.	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 01-168/ Public Service Co. of New Hampshire	Electric	Refinancing of Long-term Debt, Short-term Debt Limit, and Utilization of Derivative Instruments
New Hampshire	PUC	DG 01-182/ Northern Utilities, Inc.	Natural Gas	Cost of Capital and Return on Equity
New Hampshire	PUC	DW 01-081/ Pennichuck Water Works, Inc.	Water	Cost of Capital and Return on Equity

UTILITY-RELATED MATTERS

State	Client	Description
New Hampshire	Office of the Consumer Advocate (OCA)	Negotiated Settlement terms in DE 21-119 Eversource Energy's Proposed Tariff Amendment to Residential Time-of-Day Rate
New Hampshire	OCA	Negotiated Settlement terms in DE 20-170 Electric Distribution Utilities' Electric Vehicle Time of Use Rates
New Hampshire	OCA	Evaluated utility proposal and ratepayer impacts of Liberty Utilities cost of gas proposal in DG 21-130 (EnergyNorth Natural Gas) and DG 21-132 (Liberty-Keene Division)
New Hampshire	OCA	Evaluated Liberty Utilities' Firm Transportation Agreement with Tennessee Gas Pipeline Company LLC in DG 21-008
Maryland	Department of Natural Resources (DNR)	Prepared the financial analysis and ratepayer impacts of a long-term contract requirement under Maryland's RPS. The report titled "Final Report Concerning the Maryland Renewable Portfolio Standard as Required by Chapter 393 of the Acts of the Maryland General Assembly of 2017" was publicly released in December 2019.
Maryland	Energy Administration (EA)	Evaluated utility proposals for deployment, cost-benefit analysis, and cost recovery of Maryland's Statewide Electric Vehicle Portfolio in Case No. 9478 In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio.
Federal	US Department of Energy (DOE)	Conducted research and drafted sections of regional energy market operations manuals for the US Department of Energy's Federal Energy Management Program. The reports focused on how federal facilities were pursuing renewable energy development under different market constructs, such as by vertically integrated electric utilities, electric utilities with the PJM footprint, and electric utilities in California.
New Hampshire	Derry Town Council	Oversaw town energy committee's involvement in various energy cost saving projects or initiatives, such as installing a large solar array on the town's landfill, updating streetlights with LED fixtures, building a new transfer station that meets LEED certification, installing an electric vehicle charging station downtown, and

		hosting/managing resident participation in two Solar Up campaigns.
New Hampshire	Derry Town Council	Advised town council on establishing the Derry Net Zero Task Force and town goal of becoming Net Zero by 2025.
Massachusetts	Union of Concerned Scientists (UCS)	Evaluated and developed alternative financial policies to national and state renewable energy standards. Completed internal documents and research focusing on master limited partnerships and real estate investment trusts as possible sources of financing capital for renewable energy projects.
Massachusetts	UCS	Manufacturing Supply Chain Analysis of Wind Power Systems
New Hampshire	Public Utilities Commission (PUC)	Developed internal protocols for managing New Hampshire's RPS program pursuant to NHPUC's RPS program rules (N.H. Code of Administrative Rules PUC 2500), including designing resource eligibility application forms.
New Hampshire	PUC	Verified electricity providers' compliance with New Hampshire's RPS program and processed applications for renewable energy source eligibility.
New Hampshire	PUC	Prepared and submitted annual RPS compliance reports to the State legislature on behalf of the NHPUC.
New Hampshire	PUC	Developed Greenhouse Gas Emissions Reduction Fund Cost Effectiveness Analysis model for grant proposals.
New Hampshire	PUC	Collaborated on behalf of the NHPUC with public and private entities to write New Hampshire's RPS law (HB 873), law concerning state participation in Regional Greenhouse Gas Initiative (RGGI) (HB 1434) and the NHPUC's RPS program rules (N.H. Code of Administrative Rules Puc 2500).
New Hampshire	PUC	Advised the Commissioners on the development of the RGGI carbon dioxide emission limits and the RGGI Allowance Auction Market.
New Hampshire	PUC	Assisted researchers at the University of New Hampshire in estimating the net benefits of New Hampshire's RPS and its participation in RGGI for the state legislature.

APPENDIX B: EXHIBITS

- Exhibit MLR-1 – Historical Economic Trends
- Exhibit MLR-2a – Rates & Yields
- Exhibit MLR-2b – Yield Curve
- Exhibit MLR-2c – TIPS Spread
- Exhibit MLR-3 – Survey of Professional Forecasters
- Exhibit MLR-4 – Sample Characteristics
- Exhibit MLR-5a – Constant Growth DCF Results EPS Growth Method (30-Day Stock Price)
- Exhibit MLR-5b – Constant Growth DCF Results EPS, DPS, and BVPS Growth Method (30-Day Stock Price)
- Exhibit MLR-5c – Constant Growth DCF Result with EPS Growth Method (90-Day Stock Price)
- Exhibit MLR-5d – Constant Growth DCF Results with EPS, DPS, and BVPS Growth Method (90-Day Stock Price)
- Exhibit MLR-6a – Sustainable Growth DCF (Internal)
- Exhibit MLR-6b – Sustainable Growth DCF (External)
- Exhibit MLR-6c – Sustainable Growth DCF (Results) (30-Day Stock Price)
- Exhibit MLR-6d – Sustainable Growth DCF (Internal)
- Exhibit MLR-6e – Sustainable Growth DCF (External)
- Exhibit MLR-6f – Sustainable Growth DCF (Results) (90-Day Stock Price)
- Exhibit MLR-7a – CAPM & ECAPM Assumptions (Historical Lg Stock Return, 30-yr T-Bond)
- Exhibit MLR-7b – CAPM & ECAPM Results (Historical Lg Stock Return, 30-yr T-Bond)
- Exhibit MLR-7c – CAPM & ECAPM Assumptions (Supply-Side ERP, 30-yr T-Bond)
- Exhibit MLR-7d – CAPM & ECAPM Results (Supply-Side ERP, 30-yr T-Bond)
- Exhibit MLR-7e – CAPM & ECAPM Assumptions (D&P Normalized RF Rate)
- Exhibit MLR-7f – CAPM & ECAPM Results (D&P Normalized RF Rate)
- Exhibit MLR-8a – Comparable Earnings Model – Historical Annual Stock Prices
- Exhibit MLR-8b – Comparable Earnings Model – Historical Annual Book Value per Share
- Exhibit MLR-8c – Comparable Earnings Model – Market-to-Book Ratios

- Exhibit MLR-8d – Comparable Earnings Model – Value Line Return on Common Equity
- Exhibit MLR-8e – Comparable Earnings Model – Comparison of Historical Average & Value Line Estimates
- Exhibit MLR-9 – Responses to RFIs Used in Testimony

The following files are not convertible:

23-2022.xlsx	53601_DOD_MReno Exh. MLR-1 to MLR-3_8-
25-2022.xlsx	53601_DOD_MReno Exh. MLR-4 to MLR-8e_8-

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

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

Exhibit MLR-9 –

Responses to RFIs Used in Testimony

Oncor Electric Delivery Company LLC
Senior Secured Ratings (January 1, 2017 – May 31, 2022)

<u>Date</u>	<u>Moody's</u>	<u>S&P</u>	<u>Fitch</u>	<u>Comments</u>
January 2017	A3	A	BBB+	As of January 1, 2017
December 2017	A3	A	BBB+	Year End
March 2018	A2	A+	A	As of March 12, 2018 - Post tax reform and Sempra Close Upgrades
December 2018	A2	A+	A	Year End
December 2019	A2	A+	A	Year End
December 2020	A2	A+	A	Year End
December 2021	A2	A+	A	Year End
May 2022	A2	A+	A	As of May 31, 2022

Oncor Electric Delivery Company LLC
Commercial Paper Ratings (March 1, 2018 – May 31, 2022)

March 2018	Prime-2	A-1	F2	Beginning of CP program
December 2018	Prime-2	A-1	F2	Year End
December 2019	Prime-2	A-1	F2	Year End
December 2020	Prime-2	A-1	F2	Year End
December 2021	Prime-2	A-1	F2	Year End
May 2022	Prime-2	A-1	F2	As of May 31, 2022

Request

Refer to the proforma adjustment to per books common equity on Schedule II-C-2.1 of negative \$4,377,674,612. Provide the workpaper(s) in support of each component of this proforma adjustment, including a detailed description of each separate adjustment comprising this net adjustment by common equity FERC account, the reason for each separate adjustment, and the citation and a copy of each authority relied on for each separate adjustment.

Response

The following response was prepared by or under the direct supervision of W. Alan Ledbetter, the sponsoring witness for this response.

See workpaper WP/Ledbetter/Direct/II-C-2.1 Common Equity (Bates page no. 721) for a summary of the proforma adjustments to the book amount of Oncor's total membership interests (common equity) balance at December 31, 2021.

These adjustments to equity capital reflect:

(1) the exclusion of \$3,833 million of equity capital (recorded in Federal Energy Regulatory Commission ("FERC") Account 2113000) related to the effects of the 2007 merger transaction between Texas Energy Future Holdings Limited Partnership ("TEF") and TXU Corp., as approved by the Commission in Docket No. 34077. Findings of Fact in the Order on Rehearing from Docket No. 34077 provide that:

61. Exclusion of Goodwill Commitment. The calculations for the debt-to-equity ratio commitment will not include goodwill resulting from the merger. This commitment is supplemented by finding of fact 80.

80. Goodwill Commitment. TEF and Oncor will not include goodwill from the merger in the calculation of the debt-to-equity-ratio commitment to justify increased debt at Oncor. Write-downs or write-offs of goodwill will not be included in the calculation of net income for dividend payment purposes. This provision supplements the commitment reflected in finding of fact 47.

81. Goodwill Commitment. Oncor will not seek to recover merger goodwill or any expense associated with the impairment of goodwill in its rates.

(2) the exclusion of \$676 million of equity capital (recorded in FERC account 2113000) related to the goodwill recognized in the acquisition of Oncor NTU, as approved by the Commission in Docket No. 48929. As reflected in the Order in Docket No. 48929, "Oncor commits that it and the North Texas Utility will not seek recovery of the goodwill recorded as an asset on Oncor's books as a result of the proposed transactions through Oncor's rates and to exclude that goodwill amount from Oncor's rate base" (see Finding of Fact No. 86). Further, Ordering Paragraph No. 25 dictates that "Oncor and the North Texas Utility must not seek recovery of the goodwill recorded as an asset on Oncor's books as a result of the proposed transactions through Oncor's rates and must exclude that goodwill amount from Oncor's rate base."

(3) the exclusion of the \$131 million balance in equity capital related to the other comprehensive income - loss (recorded in FERC account 216) associated with non-recoverable pension and other postemployment benefits costs (\$95 million) and derivative activity related to interest-rate hedging connected with long-term debt financing (\$36 million, net of tax).

SOAH DOCKET NO. 473-22-2695
PUC DOCKET NO. 53601

APPLICATION OF ONCOR ELECTRIC
DELIVERY COMPANY LLC FOR
AUTHORITY TO CHANGE RATES

§
§
§

PUBLIC UTILITY COMMISSION
OF TEXAS

Affidavit of Maureen L. Reno

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

)
) ss:

I, Maureen L. Reno, being duly sworn state that the Direct Testimony and exhibits for introduction into evidence in Public Utility Commission of Texas Docket No. 53601 were prepared by me or under my supervision, control, and direction; that the Direct Testimony, schedules, and exhibits are true and correct to the best of my information, knowledge and belief; and that I would give the same testimony orally and would present the same schedules, and exhibits if asked under oath.

Dated at Rockingham County, New Hampshire, this 25th day of August 2022.

Signature: _____

Name: Maureen L. Reno

Date: August 25, 2022

Subscribed and sworn to before me this 25th day of August 2022.

Notary Public, State of New Hampshire

My Commission expires: October 27th, 2026

