

**BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS**

**APPLICATION OF ENTERGY NEW)
ORLEANS, INC. FOR A CHANGE IN)
ELECTRIC AND GAS RATES PURSUANT) DOCKET NO. UD-18-07
TO COUNCIL RESOLUTIONS R-15-194 AND)
R-17-504 AND FOR RELATED RELIEF)**

Direct Testimony & Schedules of

Christopher C. Walters

On behalf of

Air Products and Chemicals, Inc.

February 1, 2019



BEFORE THE
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APPLICATION OF ENTERGY NEW)
ORLEANS, INC. FOR A CHANGE IN)
ELECTRIC AND GAS RATES PURSUANT) DOCKET NO. UD-18-07
TO COUNCIL RESOLUTIONS R-15-194 AND)
R-17-504 AND FOR RELATED RELIEF)

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

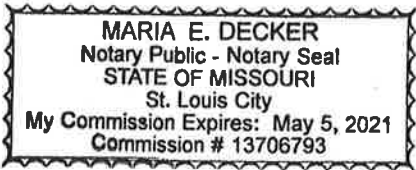
Affidavit of Christopher C. Walters

Christopher C. Walters, being first duly sworn, on his oath states:

1. My name is Christopher C. Walters. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Air Products and Chemicals, Inc. in this proceeding on their behalf.
2. Attached hereto and made a part hereof for all purposes are my direct testimony and schedules which were prepared in written form for introduction into evidence in the Council of the City of New Orleans Docket No. UD-18-07.
3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.


Christopher C. Walters

Subscribed and sworn to before me this 31st day of January, 2019.




Notary Public

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Direct Testimony of Christopher C. Walters

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R-17-504 AND FOR RELATED RELIEF)

Direct Testimony of Christopher C. Walters

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 Q WHAT IS YOUR OCCUPATION?

5 A I am a Senior Consultant in the field of public utility regulation with the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
8 EXPERIENCE.

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

10 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

11 A I am appearing on behalf of Air Products and Chemicals, Inc. ("Air Products"), a large
12 industrial customer taking service from Entergy New Orleans, Inc. ("ENO"). Air

1 Products has been a customer of ENO, and predecessor company New Orleans Public
2 Service, Inc. (“NOPSI”), since 1965.

3 **Q WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?**

4 A My testimony will address the current market cost of equity, and resulting overall rate
5 of return for ENO. In my analyses, I consider the results of several market models, the
6 current and expected economic environment, as well as the outlook for the regulated
7 utility industry. I will also respond to the Company’s witness Mr. Robert Hevert’s
8 recommended return on equity (“ROE”) range of 10.25% to 11.25%, with a midpoint
9 recommendation of 10.75%.

10 My silence in regard to any issue should not be construed as an endorsement of
11 ENO’s position.

12 **I. SUMMARY**

13 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS**
14 **ON RETURN ON EQUITY.**

15 A In Section II of my testimony, I review and analyze the regulated utility industry’s
16 access to capital, credit rating trends and outlooks, as well as the overall trend in the
17 authorized ROE for electric utilities throughout the country. I conclude that the trend
18 in authorized ROEs for electric utilities has declined over the last several years and has
19 remained below 10.0% more recently. I also review the impact that the Federal
20 Reserve’s monetary policy actions have had on the cost of capital.

1 In Section III of my testimony, I outline how a fair ROE should be established,
2 provide an overview of the market's perception of the ENO's investment risk, comment
3 on the Company's proposed capital structure, and present the analyses I relied on to
4 estimate an appropriate ROE for ENO. Based on the results of several cost of equity
5 estimation methods performed on publicly traded electric utility companies with
6 comparable risk to the Company, I recommend the Council of the City of New Orleans
7 ("CNO" or "Council") award ENO a return on common equity of 9.35%, which is the
8 midpoint of my recommended range of 9.0% to 9.7%. My recommended ROE will
9 fairly compensate ENO for its current market cost of common equity while mitigating
10 the claimed revenue deficiency in this proceeding by fairly balancing the interests of
11 investors and ratepayers.

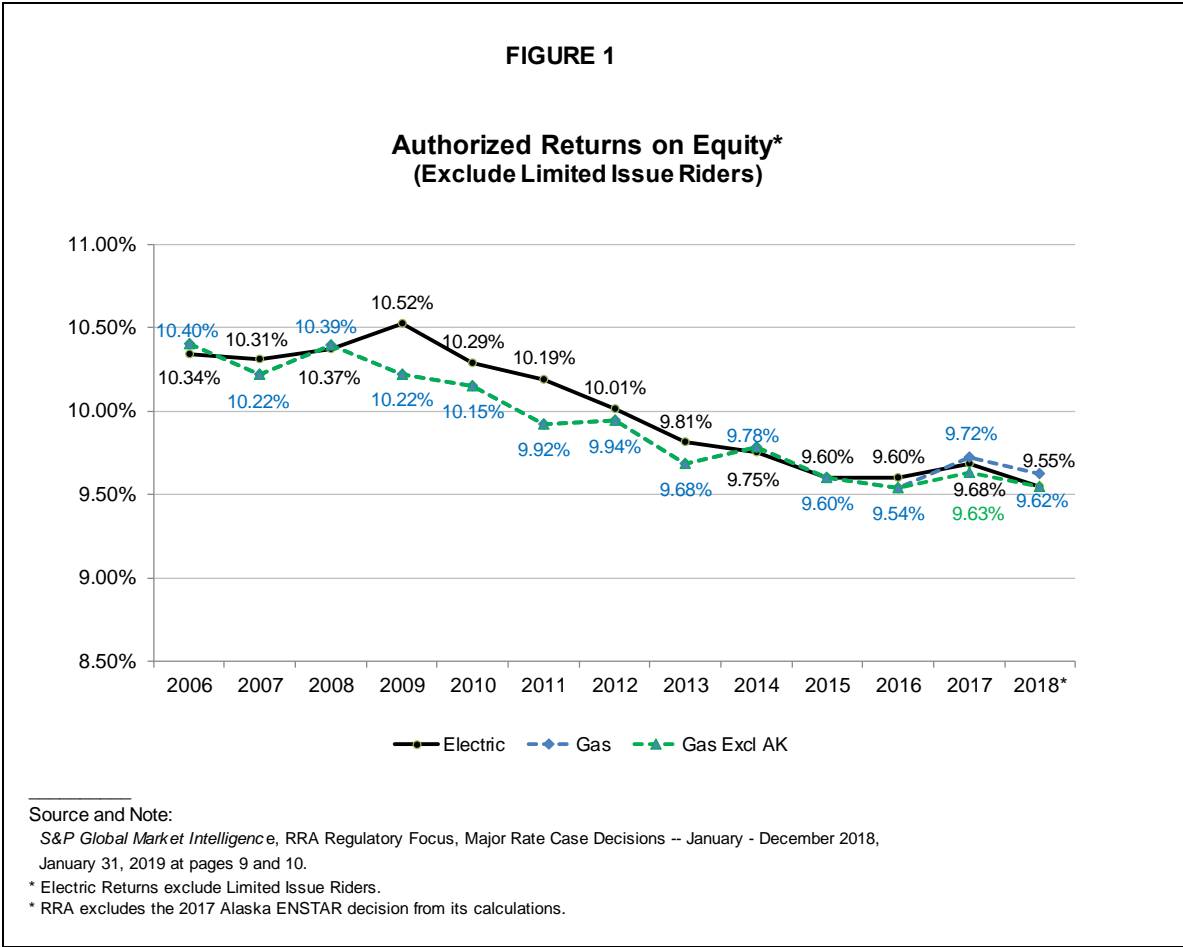
12 In Section IV of my testimony, I respond to the Company's witness Mr. Robert
13 Hevert's estimate of the current market cost of equity for ENO. Mr. Hevert recommends
14 a cost of equity within the range of 10.25% to 11.25%, with a midpoint estimate of
15 10.75%. I show that his estimates are overstated and do not represent an accurate
16 estimate of the current market cost of equity for the Company, and would be much
17 higher than a fair and balanced ROE for ratemaking purposes.

II. ACCESS TO CAPITAL AND ECONOMIC ENVIRONMENT

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

Q PLEASE DESCRIBE THE OBSERVABLE EVIDENCE ON TRENDS IN AUTHORIZED RETURNS ON EQUITY FOR ELECTRIC AND GAS UTILITIES, UTILITIES' CREDIT STANDING, AND UTILITIES' ACCESS TO CAPITAL TO FUND INFRASTRUCTURE INVESTMENT.

A Authorized ROEs for both electric and gas utilities have declined over the last ten years, as illustrated in Figure 1 below, and have been reasonably stable well below 10.0% for about the last six years.



1 Q PLEASE DESCRIBE THE DISTRIBUTION OF AUTHORIZED RETURNS ON
2 EQUITY FOR THE LAST FEW YEARS.

3 A The industry average authorized ROE is inflated by certain outlier ROEs that are much
4 higher than the rest of the industry. The distribution of authorized returns, annually,
5 since 2016 is summarized in Table 1 below.

<u>Line</u>	<u>Year</u>	<u>Average</u> (1)	<u>Median</u> (2)	<u>Share of</u> <u>Decisions</u> <u>≤ 9.7%</u> (3)
1	2016	9.60%	9.60%	53%
2	2017 ¹	9.67%	9.60%	67%
3	2018 ²	9.54%	9.57%	63%

Source and Notes:
S&P Global Market Intelligence, downloaded 12/18/2018.
¹Includes authorized base ROE of 9.4% for Nevada Power Company, which excludes incentives associated with the Lenzie facility.
²Includes authorized base ROE of 9.6% for Interstate Power & Light Co., which excludes allowed ROE for generating facilities subject to special ratemaking principles.
*Excludes Limited Issue Rider Cases.

6 The distribution of returns shows that over the last few years, the share of
7 authorized returns below 9.7% has grown, and the most frequent distribution of
8 authorized equity returns is less than 9.7%, with many below 9.5%.

1 Q HOW HAS CREDIT RATING ACTIVITY SINCE 2011 IMPACTED THE
2 CREDIT RATING OF THE ELECTRIC UTILITY INDUSTRY?

3 A The credit rating changes for the electric utility industry over the last several years are
4 the result of marked improvement in overall financial health and credit quality as shown
5 below in Table 2. As shown in this table, in 2008, approximately 69% of the electric
6 utility industry was rated from BBB- to BBB+, 18% had a bond rating better than BBB+,
7 and around 13% of the industry was below investment grade.

8 The overall industry rating improved steadily over the subsequent eight years.
9 By 2016, none of the industry was below investment grade, and around 70% were BBB+
10 or stronger. Overall, the improvement in the electric utility industry's overall credit
11 quality has been quite significant.

TABLE 2

**S&P Ratings by Category
(Year End)**

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018 Q3</u>
Regulated											
A or higher	8%	7%	9%	8%	6%	3%	3%	3%	6%	6%	3%
A-	10%	15%	14%	14%	17%	20%	21%	22%	28%	34%	32%
BBB+	23%	22%	17%	19%	14%	17%	32%	33%	36%	29%	29%
BBB	23%	27%	31%	35%	36%	49%	37%	33%	22%	20%	24%
BBB-	23%	20%	17%	14%	17%	6%	3%	3%	8%	11%	12%
Below BBB-	<u>13%</u>	<u>10%</u>	<u>11%</u>	<u>11%</u>	<u>11%</u>	<u>6%</u>	<u>5%</u>	<u>6%</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: EEI 2018 Q3 Credit Ratings. Tab V. S&P Rating by Comp. Category.

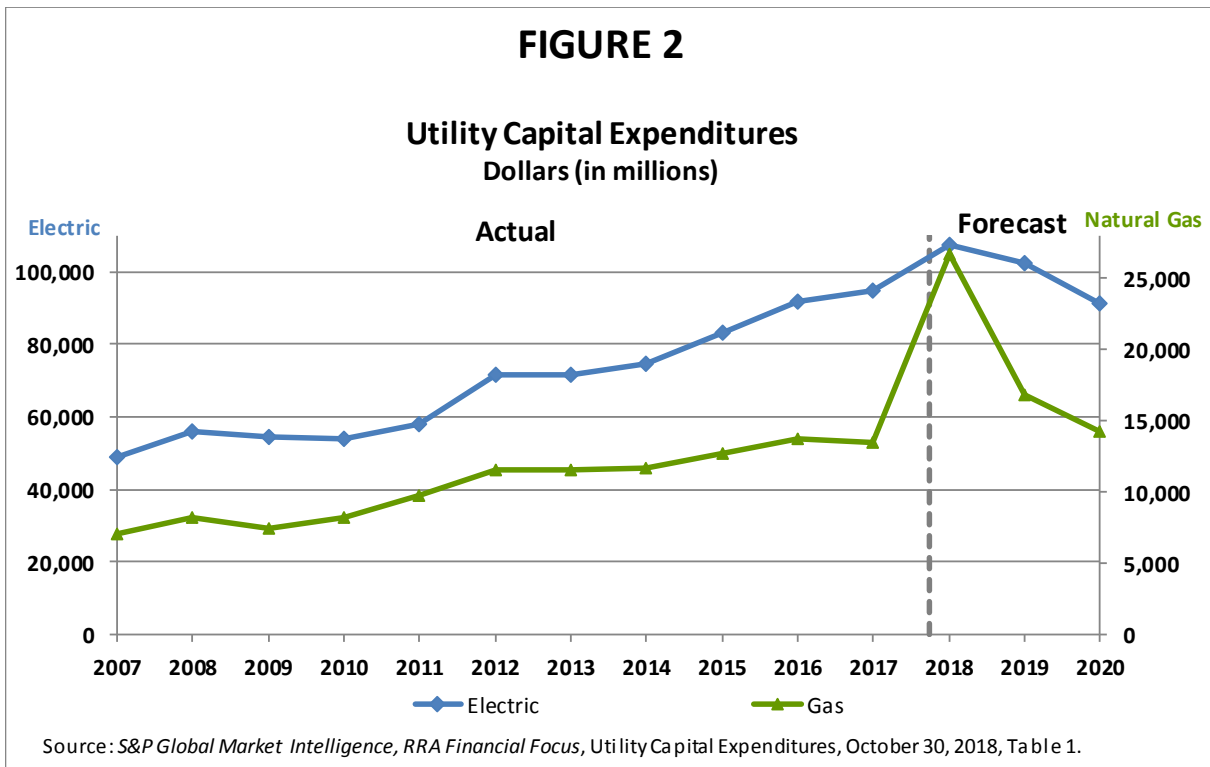
1 **Q HAVE UTILITIES BEEN ABLE TO ACCESS EXTERNAL CAPITAL TO**
2 **SUPPORT INFRASTRUCTURE CAPITAL PROGRAMS?**

3 **A Yes.** In its October 30, 2018 Utility Capital Expenditures Update report, *RRA Financial*
4 *Focus*, a division of S&P Global Market Intelligence, made several relevant comments
5 about utility investments generally:

- 6 • Projected 2018 capital expenditures for the 50 gas and electric
7 utilities in the RRA universe has stayed mostly steady at about \$133.8
8 billion, an all-time high for the sector and nearly 14% higher than the
9 prior forecast of \$117.5 billion last fall.
- 10 • CapEx projections for the longer term increased modestly from our
11 previous analysis in April 2018, rising to \$118.9 billion for 2019 and
12 \$105.1 billion for 2020, as companies' plans for future projects
13 solidified and new opportunities arose.
- 14 • The federal tax code changes that took effect at the start of 2018
15 preserved a provision strongly supported by the industry to
16 encourage investment: the deductibility of interest expense for
17 regulated utilities. Being among the most capital-intensive
18 industries, utilities would have had a much higher cost of capital
19 absent this provision, which would have impacted capital investment
20 planning and likely led to higher utility bills.¹

21 Regulated utility companies have accessed significant amounts of capital to
22 support substantial capital investments over at least the last ten years. As shown below
23 in Figure 2, capital expenditures for electric and natural gas utilities have increased
24 considerably over the period 2007 into 2018, and the forecasted capital expenditures
25 remain high but are starting to abate.

¹S&P Global Market Intelligence, *RRA Financial Focus*: "Utility Capital Expenditures Update," October 30, 2018.



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

3 A Yes. Robust valuations are an indication that utilities can sell securities at high prices,
4 which is a strong indication that they can access equity capital under reasonable terms
5 and conditions, and at relatively low cost. As shown on Schedule CCW-1, the historical
6 valuation of electric utilities followed by *Value Line*, based on a price-to-earnings
7 (“P/E”) ratio, price-to-cash flow (“P/CF”) ratio, and market price-to-book value
8 (“M/B”) ratio, indicates utility security valuations today are very strong and robust
9 relative to the last several years. These strong valuations of utility stocks indicate that
10 utilities have access to equity capital under reasonable terms and at lower costs.

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

3 A Observable market evidence is quite clear that capital market costs are near historically
4 low levels. While authorized returns on equity have fallen to the mid 9.0% range,
5 utilities continue to have access to large amounts of external capital even as they are
6 funding large capital programs. Furthermore, utilities' investment-grade credit ratings
7 are stable and have improved due, in part, to supportive regulatory treatment. The
8 Commission should carefully weigh all this important observable market evidence in
9 assessing a fair ROE for ENO.

10 **II.B. Regulated Utility Industry Outlook**

11 Q PLEASE DESCRIBE THE CREDIT RATING OUTLOOK FOR REGULATED
12 UTILITIES.

13 A Regulated utilities' credit ratings have improved over the last few years. Credit analysts
14 have observed that utilities have strong access to capital at attractive pricing (i.e., low
15 capital costs), which has supported very large capital programs.

16 Standard & Poor's ("S&P") recently published a report titled "Industry Top
17 Trends 2019: North America Regulated Utilities." In that report, S&P noted the
18 following:

19 – **Ratings Outlook: Rating trends across regulated electric, gas, and**
20 **water utilities in North America remain mostly stable, reflecting**
21 **generally supportive regulatory oversight.** However, the industry's
22 financial measures weakened in 2018 as a result of U.S. tax reform,
23 robust capital spending, and flat to slightly negative load growth. **In**
24 **general, those utilities most affected by these developments were those**

1 who strategically operate with a minimal financial cushion at their
2 current rating.

3 * * *

4 – **Industry Trends:** The North America utility industry is mostly stable
5 with some downside ratings exposure. Weaker credit measures from tax
6 reform will likely persist in 2019, reflecting tax-related rate reductions
7 carryovers. However, we expect that some utilities will offset this
8 reduced revenue with further equity infusions or asset sales. Other
9 developing trends include rising interest rates, inflation, technology,
10 climate change, and regulatory lag, which could further stress the
11 industry’s credit quality.²

12 Moody’s more recently did place the industry on “Negative” outlook, to reflect
13 the uncertainty and short-term cash flow impacts primarily as a result of the change in
14 federal tax law, but also the large capital program for the industry. Moody’s stated:

15 Some regulatory commissions have allowed early tax reform relief In
16 Florida, the Florida Public Service Commission allowed several of the
17 state’s utilities including Florida Power & Light Company (A1 stable),
18 Duke Energy Florida, LLC (A3 stable) and Tampa Electric Company
19 (A3 stable) to use the bulk of customer refunds resulting from tax reform
20 changes to offset rate increases for power restoration costs associated
21 with the utilities’ response to Hurricane Irma. Duke Energy Florida was
22 also permitted to use a portion of the savings to accelerate the
23 depreciation of existing coal plants.³

24 As outlined above, Moody’s is concerned about short-term cash flow impacts
25 for the regulated utility industry. However, it is looking for regulatory decisions that
26 support the utility’s cash flow while the utility transforms to the new federal tax law
27 environment.

²*S&P Global Ratings*: “Industry Top Trends 2019: North America Regulated Utilities,” November 8, 2018, at 1 (emphasis added).

³*Moody’s Investors Service*: “Outlook: Regulated utilities - US, 2019 outlook shifts to negative due to weaker cash flows, continued high leverage,” June 18, 2018 at 3.

1 In a recent report Fitch states:

2 The Tax Cuts and Jobs Act signed into law on Dec. 22, 2017 has negative
3 credit implications for U.S. regulated utilities and utility holding
4 companies over the short-to-medium term, according to Fitch Ratings. A
5 reduction in customer bills to reflect lower federal income taxes and
6 return of excess accumulated deferred income taxes is expected to lower
7 revenues and funds from operations (FFO) across the sector. Absent
8 mitigating strategies on the regulatory front, this is expected to lead to
9 weaker credit metrics and negative rating actions for those issuers that
10 have limited headroom to absorb the leverage creep.

11 * * *

12 Over a longer-term perspective, Fitch views tax reform as modestly
13 positive for utilities. The sector retained the deductibility of interest
14 expense, which would have otherwise significantly impacted cost of
15 capital for this capital intensive sector. The exemption from 100% capex
16 expensing is also welcome news for the sector, which has seen years of
17 bonus depreciation reduce rate base leading to lower earnings. Finally,
18 the reduction in federal income taxes lowers cost of service to customers,
19 providing utilities headroom to increase rates for capital investments.⁴

20 **Q IS THERE REASON TO BELIEVE THAT THE CHANGE IN FEDERAL TAX**
21 **LAW WILL INCREASE UTILITIES' COST OF EQUITY?**

22 A No. For some utilities, the TCJA will impact cash flows. The impact on cash flows,
23 however, is not significant enough to threaten the credit standing of the industry in
24 general. There are certain utilities whose credit metrics were marginal to support their
25 existing credit ratings and were, or are, subject to a slight downgrade as a result of the
26 TCJA.

27 More importantly, the TCJA will have the effect of increasing the after-tax
28 return on a stock dividend payment. This increase in after-tax return will be reflected

⁴*Fitch Ratings*: "Tax Reform Creates Near-term Credit Pressure for U.S. Utilities," January 24, 2018, emphasis added.

1 by an increase in the stock price, to readjust the dividend yield to make it competitive
2 with other investments on an after-tax basis. Indeed, I believe the TCJA has had the
3 effect of increasing stock prices, and reducing dividend yields, in order to preserve a
4 comparable after-tax return for investors for the period after the TCJA was
5 implemented, relative to investment options that existed before the TCJA. As such, the
6 TCJA has had the effect of reducing utilities' cost of capital, based on the reduced
7 income tax cost of a utility dividend.

8 **II.C. Federal Reserve Monetary Policy**

9 **Q HAVE YOU CONSIDERED THE CONSENSUS OUTLOOKS OF**
10 **INDEPENDENT ECONOMISTS FOR CHANGES IN INTEREST RATES IN**
11 **FORMING YOUR RECOMMENDED ROE IN THIS CASE?**

12 **A** Yes. The outlook for changes in interest rates, inflation, and Gross Domestic Product
13 (“GDP”) growth has been impacted by expectations that the Federal Reserve Bank Open
14 Market Committee (“FOMC”) will raise short-term interest rates. The consensus
15 among independent economists are expecting continued increases in the Federal Funds
16 Rate as the FOMC continues to normalize interest rates in response to the strengthening
17 of the U.S. economy.

18 This is evident from a comparison of current and forecasted changes in the
19 Federal Funds Rate. Table 3 below shows that while the Federal Funds Rate (the short-
20 term rate) is expected to increase over the next several years (a consensus increase of

1 1.9% to 2.9%), the consensus for increases in long-term interest rates is not as
2 significant (a consensus increase of 3.1% to 3.6%).

TABLE 3

Blue Chip Financial Forecasts

Projected Federal Funds Rate, 30-Year Treasury Bond Yields, and GDP Price Index

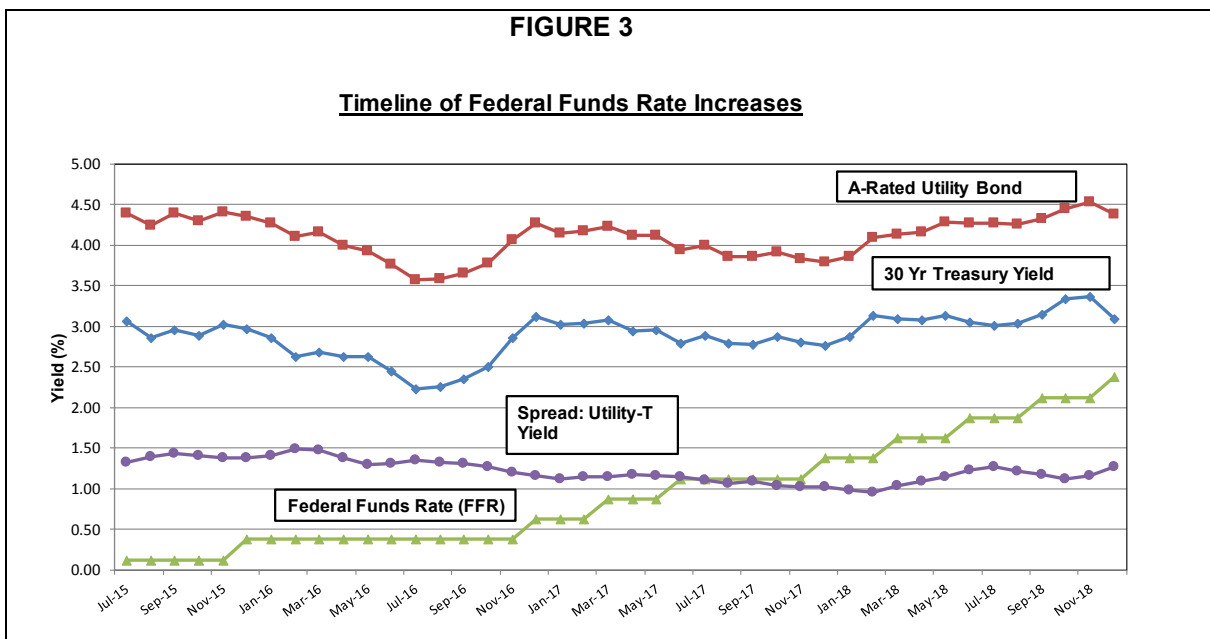
<u>Publication Date</u>	<u>2Q</u> <u>2018</u>	<u>3Q</u> <u>2018</u>	<u>4Q</u> <u>2018</u>	<u>1Q</u> <u>2019</u>	<u>2Q</u> <u>2019</u>	<u>3Q</u> <u>2019</u>	<u>4Q</u> <u>2019</u>	<u>1Q</u> <u>2020</u>	<u>2Q</u> <u>2020</u>
<u>Federal Funds Rate</u>									
Aug-18	1.7	2.0	2.2	2.4	2.6	2.8	2.9		
Sep-18	1.7	2.0	2.2	2.4	2.6	2.8	2.9		
Oct-18		1.9	2.2	2.4	2.7	2.8	2.9	2.9	
Nov-18		1.9	2.3	2.5	2.7	2.8	3.0	3.0	
Dec-18		1.9	2.3	2.5	2.7	2.9	3.0	3.0	
Jan-19			2.2	2.5	2.6	2.8	2.9	2.9	2.9
<u>T-Bond, 30 yr.</u>									
Aug-18	3.1	3.2	3.3	3.5	3.6	3.7	3.7		
Sep-18	3.1	3.1	3.3	3.4	3.5	3.6	3.7		
Oct-18		3.1	3.3	3.4	3.5	3.6	3.7	3.6	
Nov-18		3.1	3.3	3.5	3.6	3.6	3.7	3.7	
Dec-18		3.1	3.4	3.5	3.6	3.6	3.7	3.7	
Jan-19			3.3	3.3	3.4	3.5	3.5	3.6	3.6
<u>GDP Price Index</u>									
Aug-18	3.0	2.3	2.2	2.3	2.2	2.3	2.2		
Sep-18	3.0	2.2	2.3	2.3	2.3	2.2	2.2		
Oct-18		2.2	2.3	2.3	2.3	2.2	2.2	2.2	
Nov-18		1.7	2.4	2.3	2.3	2.2	2.3	2.2	
Dec-18		1.7	2.3	2.2	2.3	2.2	2.2	2.2	
Jan-19			2.0	2.1	2.3	2.2	2.2	2.2	2.2

Source and Note:
Blue Chip Financial Forecasts, August 2018 through January 2019.
Actual Yields in Bold

Importantly, one should recognize that an increase in the Federal Funds Rate does not automatically result in an increase in long-term interest rates.

1 Q IS THERE EVIDENCE THAT THE FED'S NORMALIZATION POLICY HAS
2 HAD MINIMAL IMPACT ON LONG-TERM RATES?

3 A Yes. The Fed has raised the Federal Funds Rate nine times over the last few years,
4 raising the short-end of the yield curve. However, comparable increases for longer
5 maturity bonds have not been realized. This has had the effect of flattening the yield
6 curve. This is illustrated on in Figure 3.



7 As shown in Figure 3 above, the actions taken by the FOMC to increase the
8 Federal Funds Rate have simply flattened the yield curve, and have not resulted in a
9 corresponding increase in long-term interest rates. This is significant because the cost
10 of common equity is impacted by long-term interest rates, not short-term interest rates.
11 As a result, the recent increases in the Federal Funds Rate, and the expectation of
12 continued increases in the Federal Funds Rate, have not, and are not expected to,
13 significantly impact long-term interest rates.

1 Also, the Federal Reserve has recently implemented a strategy to begin to
2 unwind its balance sheet position in long-term interest rate securities. The Federal
3 Reserve built up approximately \$4.7 trillion of Treasury and mortgage-backed security
4 holdings as part of a quantitative easing (“QE”) program that spanned 2008 to 2014.
5 During the QE program, the Federal Reserve procured long-term securities in an effort
6 to support the Federal Reserve’s monetary policy, mitigate long-term interest rates, and
7 to stimulate the economy. In essence, by purchasing these securities, the Federal
8 Reserve was making capital more readily available at lower long-term interest rates.

9 The Federal Reserve recently started to unwind its balance sheet positions of
10 mortgage-backed securities and Treasury bonds. The Fed now engages in a slow and
11 systematic reduction to its balance sheet position. This Fed balance sheet action has
12 been disclosed to the market, and the impact on capital markets valuation and interest
13 rates is captured in current and projected interest rates.

14 For these reasons, the Federal Reserve actions on short-term interest rates and
15 unwinding its balance sheet have not resulted in material increases in long-term interest
16 rates.

17 **Q DO YOU BELIEVE MARKET PARTICIPANTS AND THE CONSENSUS OF**
18 **INDEPENDENT ECONOMISTS REFLECT ALL RELEVANT FACTORS IN**
19 **FORMING THEIR INTEREST RATE PROJECTIONS?**

20 **A Yes. Because the Fed’s actions are well followed by market participants and captured**
21 **in independent economists’ outlooks for changes in capital market costs, the Fed actions**

1 along with all other relevant factors are considered by economists in forming their
2 outlooks for changes in interest rates, and capital market conditions.

3 As such, this well-informed outlook for changes in interest rates is certainly
4 relevant in assessing whether or not the current low-cost capital market costs are
5 expected to prevail or change over time.

6 **III. RETURN ON EQUITY**

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

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

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

14 A In general, determining a fair cost of common equity for a regulated utility has been
15 framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works
16 & Improvement Co. v. Pub. Serv. Comm’n of W. Va., 262 U.S. 679 (1923) and Fed.
17 Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

18 These decisions identify the general financial and economic standards to be
19 considered in establishing the cost of common equity for a public utility. Those general
20 standards provide the authorized return should: (1) be sufficient to maintain financial

1 integrity; (2) attract capital under reasonable terms; and (3) be commensurate with
2 returns investors could earn by investing in other enterprises of comparable risk.

3 **Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE**
4 **ENO'S COST OF COMMON EQUITY.**

5 A I have used several models based on financial theory to estimate ENO's cost of common
6 equity. These models are: (1) a constant growth Discounted Cash Flow ("DCF") model
7 using the consensus of analysts' growth rate projections; (2) a constant growth DCF
8 using sustainable growth rate estimates; (3) a multi-stage DCF model; (4) a Risk
9 Premium model; and (5) a Capital Asset Pricing Model ("CAPM"). I have applied these
10 models to a group of publicly traded utilities with investment risk similar to ENO.

11 **III.A. ENO's Investment Risk**

12 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT**
13 **RISK OF ENO.**

14 A The market's assessment of ENO's investment risk is described by credit rating
15 analysts' reports. ENO's current corporate bond ratings from Standard and Poor's
16 ("S&P") and Moody's are BBB+ and Ba1, respectively.⁵ The Company's outlook from
17 S&P and Moody's is "Stable". In its most recent report on ENO, S&P specifically
18 stated:

⁵S&P Global Market Intelligence, January 7, 2019.

1 **Business Risk: Strong**

2 Our assessment of ENO's business risk profile reflects its operations
3 under a generally stable regulatory environment by the City Council of
4 New Orleans (CCNO). The CCNO provides constructive mechanisms
5 for cost recovery and riders, a small customer base, and limited
6 regulatory and business diversity. We view ENO's continuous recovery
7 through riders to minimize regulatory lag as generally consistent with
8 the company's efforts to effectively manage regulatory risks. ENO
9 provides roughly 5% of Entergy's consolidated revenues and serves a
10 small customer base of 200,000 electric and 105,000 natural gas
11 customers. About 80% of operating revenues are from residential and
12 commercial customers, providing a measure of stability to revenue and
13 cash flow. ENO's generation fleet of 492 megawatts consists of natural
14 gas and fuel oil.

15 **Financial Risk: Significant**

16 Our assessment of ENO's stand-alone financial risk profile incorporates
17 a base-case scenario over the 2018-2020 period that includes adjusted
18 FFO to debt averaging about 19%, or near the midpoint of the benchmark
19 range of the significant financial risk profile category. ENO's historical
20 financial measures were elevated due to significantly increased deferred
21 taxes that started reversing in 2017. We expect the supplemental ratio of
22 FFO cash interest coverage to be in the 6x-7.5x range, supporting the
23 financial risk assessment. In addition, we expect continued capital
24 spending, which when combined with the utility's dividend payments,
25 will result in discretionary cash flow that is negative through 2020. Over
26 the next few years, we expect debt leverage to be relatively significant
27 for a regulated utility as indicated by debt to EBITDA averaging about
28 4x. The utility will have negative discretionary cash flow, or operating
29 cash flow after capital spending and dividends. The utility will therefore
30 require external financing or capital infusions from the Entergy group.
31 We base our risk assessment on more relaxed benchmarks when
32 compared to the typical corporate issuer, reflecting the company's steady
33 cash flow and rate-regulated utility operations.⁶

⁶*Standard & Poor's RatingsDirect*: "Summary: Entergy New Orleans LLC," September 21, 2018 at 4.

1 **III.B. ENO's Proposed Capital Structure**

2 **Q WHAT CAPITAL STRUCTURE IS ENO REQUESTING IN THIS CASE?**

3 **A** ENO's proposed capital structure is shown in Table 4 below:

<u>Description</u>	<u>As Filed Weight</u>
Long-Term Debt	47.80%
Common Equity	<u>52.20%</u>
Total Regulatory Capital Structure	100.00%

4 ENO's proposed capital structure is sponsored by ENO witness Mr. Orlando
5 Todd.

6 **III.C. Risk Proxy Group**

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

10 **A** I relied on the same proxy group developed by ENO witness Mr. Hevert with two
11 exceptions. I excluded Southern Company and NextEra Energy because on May 21,
12 2018 these companies announced a transaction where Southern Co. would sell Gulf
13 Power Company and Florida City Gas utility companies to NextEra Energy.

1 Q WHY IS IT APPROPRIATE TO EXCLUDE COMPANIES THAT ARE
2 INVOLVED IN MERGER AND ACQUISITION (“M&A”) ACTIVITY FROM
3 THE PROXY GROUP?

4 A M&A activity can distort the market factors used in DCF and risk premium studies.
5 M&A activity can have impacts on stock prices, growth outlooks, and relative volatility
6 in historical stock prices if the market was anticipating or expecting the M&A activity
7 prior to it actually being announced. This distortion in the market data thus impacts the
8 reliability of the DCF and risk premium estimates for a company involved in M&A.

9 Moreover, companies generally enter into M&A in order to produce greater
10 shareholder value by combining companies. The enhanced shareholder value normally
11 could not be realized had the two companies not combined.

12 When companies announce a merger or acquisition, the public assesses the
13 proposed transaction and develops outlooks on the value of the two companies after the
14 combination based on expected synergies or other value-adds created by the M&A.

15 As a result, the stock value before the merger is completed may not reflect the
16 forward-looking earnings and dividend payments for the company absent the merger or
17 on a stand-alone basis. Therefore, an accurate DCF return estimate on companies
18 involved in M&A activities cannot be produced because their stock prices do not reflect
19 the stand-alone investment characteristics of the companies. Rather, the stock price
20 more likely reflects the shareholder enhancement produced by the proposed transaction.
21 For these reasons, it is appropriate to remove companies involved in M&A activities
22 from a proxy group used to estimate a fair ROE for a utility.

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

3 A The proxy group shown in Schedule CCW-2, has an average corporate credit rating
4 from S&P of BBB+, which is identical to ENO's credit rating from S&P. The proxy
5 group has an average corporate credit rating from Moody's of Baa1, which is three
6 notches higher than ENO's credit rating from Moody's of Ba1.

7 I also note that the proxy group has an average common equity ratio of 47.1%
8 (including short-term debt) from S&P Global Market Intelligence ("MI") and 50.4%
9 (excluding short-term debt) from *The Value Line Investment Survey* ("Value Line").
10 The Company's proposed common equity ratios of 52.2% is higher than the proxy
11 group's average common equity ratio. Taking into consideration this information, I
12 believe my proxy group is reasonably comparable in risk to ENO.

13 **III.D. Discounted Cash Flow Model**

14 Q PLEASE DESCRIBE THE DCF MODEL.

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

18
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad (\text{Equation 1})$$

19

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

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

$$4 \quad K = D_1/P_0 + G \quad \text{(Equation 2)}$$

5 K = Investor’s required return
6 D₁ = Dividend in first year
7 P₀ = Current stock price
8 G = Expected constant dividend growth rate

9 Equation 2 is referred to as the annual “constant growth” DCF model.

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

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

14 **Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT**
15 **GROWTH DCF MODEL?**

16 A I relied on the average of the weekly high and low stock prices of the utilities in the
17 proxy group over a 13-week period ending on January 4, 2019. An average stock price
18 is less susceptible to market price variations than a price at a single point in time.
19 Therefore, an average stock price is less susceptible to aberrant market price
20 movements, which may not reflect the stock’s long-term value.

21 A 13-week average stock price reflects a period that is still short enough to
22 contain data that reasonably reflects current market expectations but the period is not so

1 short as to be susceptible to market price variations that may not reflect the stock's
2 long-term value. In my judgment, a 13-week average stock price is a reasonable balance
3 between the need to reflect current market expectations and the need to capture
4 sufficient data to smooth out aberrant market movements.

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

7 A I used the most recently paid quarterly dividend as reported in *Value Line*.⁷ This
8 dividend was annualized (multiplied by 4) and adjusted for next year's growth to
9 produce the D_1 factor for use in Equation 2 above. In other words, I calculate D_1 by
10 multiplying the annualized dividend (D_0) by $(1+G)$.

11 **Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR**
12 **CONSTANT GROWTH DCF MODEL?**

13 A There are several methods that can be used to estimate the expected growth in dividends.
14 However, regardless of the method, for purposes of determining the market-required
15 return on common equity, one must attempt to estimate investors' expectations about
16 what the dividend, or earnings growth rate, will be and not what an individual investor
17 or analyst may use to make individual investment decisions.

⁷The *Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

1 As predictors of future returns, securities analysts' growth estimates have been
2 shown to be more accurate than growth rates derived from historical data.⁸ That is,
3 assuming the market generally makes rational investment decisions, analysts' growth
4 projections are more likely to influence investors' decisions, which are captured in
5 observable stock prices, than growth rates derived only from historical data.

6 For my constant growth DCF analysis, I have relied on a consensus, or mean, of
7 professional securities analysts' earnings growth estimates as a proxy for investors'
8 dividend growth rate expectations. I used the average of analysts' growth rate estimates
9 from three sources: Zacks, MI, and Reuters. All such projections were available on
10 January 4, 2019, and all were reported online.

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

⁸See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

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

3 A The growth rates I used in my DCF analysis are shown in Schedule CCW-3. The
4 average growth rate for my proxy group is 5.53%.

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

6 A As shown in Schedule CCW-4, the average and median constant growth DCF returns
7 for my proxy group for the 13-week analysis are 8.86% and 9.30%, respectively.

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

10 A Yes. The constant growth DCF analysis for my proxy group is based on a group average
11 long-term sustainable growth rate of 5.53%. The three- to five-year growth rates are
12 higher than my estimate of a maximum long-term sustainable growth rate of 4.19%,
13 which I discuss later in this testimony. I believe the constant growth DCF analysis
14 produces a reasonable high-end return estimate.

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

17 A A long-term sustainable growth rate for a utility stock cannot exceed the growth rate of
18 the economy in which it sells its goods and services. Hence, the long-term maximum
19 sustainable growth rate for a utility investment is best proxied by the projected
20 long-term GDP. *Blue Chip Financial Forecasts* projects that over the next 5 and 10

1 years, the U.S. nominal GDP will grow at an annual rate of approximately 4.19%. These
2 GDP growth projections reflect a real growth outlook of around 2.0% to 2.1% and an
3 inflation outlook of around 2.1% going forward. As such, the average growth rate over
4 the next 10 years is around 4.19%, which I believe is a reasonable proxy of long-term
5 sustainable growth.⁹

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

11 **III.E. Sustainable Growth DCF**

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

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

⁹*Blue Chip Financial Forecasts*, December 1, 2018, at 14.

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

6 The payout ratios of the proxy group are shown in my Schedule CCW-5. These
7 dividend payout ratios and earnings retention ratios then can be used to develop a
8 sustainable long-term earnings retention growth rate. A sustainable long-term earnings
9 retention ratio will help gauge whether analysts' current three- to five-year growth rate
10 projections can be sustained over an indefinite period of time.

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

14 As shown in Schedule CCW-6, the average sustainable growth rate for the proxy
15 group using this internal growth rate model is 4.63%.

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

18 **A**A DCF estimate based on these sustainable growth rates is developed in Schedule
19 CCW-7. As shown there, and using the same formula in Equation 2 above, a sustainable
20 growth DCF analysis produces proxy group average and median DCF results for the
21 13-week period of 7.92% and 7.69%, respectively.

1 **III.F. Multi-stage DCF Model**

2 **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

3 A Yes. My first constant growth DCF is based on the analyst growth rate projections so
4 it is a reasonable reflection of rational investment expectations over the next three to
5 five years. The limitation on this constant growth DCF model is that it cannot reflect a
6 rational expectation that a period of high or low short-term growth can be followed by
7 a change in growth to a rate that is more reflective of long-term sustainable growth.
8 Hence, I performed a multi-stage DCF analysis to reflect this outlook of changing
9 growth expectations.

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

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

18 As major construction cycles extend over longer periods of time, even with an
19 accelerated construction program, the growth rate of the utility will slow simply because
20 rate base growth will slow and the utility has limited human and capital resources
21 available to expand its construction program. Therefore, the three- to five-year growth
22 rate projection should be used as a long-term sustainable growth rate, but not without

1 making a reasonable informed judgment to determine whether it considers the current
2 market environment, the industry, and whether the three- to five-year growth outlook is
3 sustainable.

4 **Q PLEASE DESCRIBE YOUR MULTI-STAGE DCF MODEL.**

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

10 For the short-term growth period, I relied on the consensus of analysts' growth
11 projections described above in relationship to my constant growth DCF model. For the
12 transition period, the growth rates were reduced or increased by an equal factor
13 reflecting the difference between the analysts' growth rates and the long-term
14 sustainable growth rate. For the long-term growth period, I assumed each company's
15 growth would converge to the maximum sustainable long-term growth rate.

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

18 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
19 economy in which they sell services. Utilities' earnings/dividend growth is created by
20 increased utility investment or rate base. Such investment, in turn, is driven by service
21 area economic growth and demand for utility service. In other words, utilities invest in

1 plant to meet sales demand growth. Sales growth, in turn, is tied to economic growth
2 in their service areas.

3 The U.S. Department of Energy, Energy Information Administration (“EIA”)
4 has observed utility sales growth tracks U.S. GDP growth, albeit at a lower level, as
5 shown in Schedule CCW-8. Utility sales growth has lagged behind GDP growth for
6 more than a decade. As a result, nominal GDP growth is a very conservative proxy for
7 utility sales growth, rate base growth, and earnings growth. Therefore, the U.S. GDP
8 nominal growth rate is a conservative proxy for the highest sustainable long-term
9 growth rate of a utility.

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

13 A Yes. This concept is supported in published analyst literature and academic work.
14 Specifically, in a textbook titled “Fundamentals of Financial Management,” published
15 by Eugene Brigham and Joel F. Houston, the authors state as follows:

16 The constant growth model is most appropriate for mature companies
17 with a stable history of growth and stable future expectations. Expected
18 growth rates vary somewhat among companies, but dividends for mature
19 firms are often expected to grow in the future at about the same rate as
20 nominal gross domestic product (real GDP plus inflation).¹⁰

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

¹⁰“*Fundamentals of Financial Management*,” Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.

1 **Estimating Growth Rates**

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

8 * * *

9 Another approach to estimating long-term growth rates is to focus on
10 estimating the overall economic growth rate. Again, this is the approach
11 used in the *Ibbotson Cost of Capital Yearbook*. To obtain the economic
12 growth rate, a forecast is made of the growth rate's component parts.
13 Expected growth can be broken into two main parts: expected inflation
14 and expected real growth. By analyzing these components separately, it
15 is easier to see the factors that drive growth.¹¹

16 **Q ARE THERE ANY ACTUAL INVESTMENT RESULTS THAT SUPPORT THE**
17 **NOTION THAT THE GROWTH ON STOCK INVESTMENTS WILL NOT**
18 **EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

19 **A**Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP
20 compared to the geometric growth of the U.S. stock market. Morningstar measures the
21 historical geometric growth of the U.S. stock market over the period 1926-2017 to be
22 approximately 6.0%.¹² During this same time period, the U.S. nominal compound
23 annual growth of the U.S. GDP was approximately 6.4%.¹³

24 As such, over the past 90 years, the geometric average growth of the U.S.
25 nominal GDP has been higher but comparable to the average geometric growth of the

¹¹*Morningstar, Inc., Ibbotson SBBI 2013 Valuation Yearbook* at 51 and 52.

¹²*Duff & Phelps, 2018 SBBI Yearbook* at 6-17.

¹³U.S. Bureau of Economic Analysis, February 18, 2018.

1 U.S. stock market capital appreciation. This historical relationship indicates that the
2 U.S. GDP growth outlook is a conservative estimate of the long-term sustainable growth
3 of U.S. stock investments.

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

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

14 **Q HOW DID YOU DETERMINE A LONG-TERM GROWTH RATE THAT**
15 **REFLECTS THE CURRENT CONSENSUS OF INDEPENDENT MARKET**
16 **PARTICIPANTS?**

17 A I relied on the consensus of long-term GDP growth projections as projected by
18 independent economists. *Blue Chip Financial Forecasts* publishes the consensus for
19 GDP growth projections twice a year. These GDP growth outlooks are the best

¹⁴*New Regulatory Finance*, Roger Morin, PhD, at 133-134.

1 available measure of the market's assessment of long-term GDP growth. These analyst
2 projections reflect all current outlooks for GDP and are likely the most influential on
3 investors' expectations of future growth outlooks. The consensus of GDP growth rate
4 projections is 4.19% over the next 10 years.¹⁵

5 Therefore, I propose to use the consensus projected 5- and 10-year average GDP
6 growth rates of 4.19%, as published by *Blue Chip Financial Forecasts*, as an estimate
7 of long-term sustainable growth. *Blue Chip Financial Forecasts* projections provide
8 real GDP growth projections of 2.1% and GDP inflation of 2.1%¹⁶ over the 5-year and
9 10-year projection periods, of 419% on the nominal projections. These GDP growth
10 forecasts represent the most likely views of market participants because they are based
11 on published consensus projections of independent economists.

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

14 **A** Yes, and these sources corroborate my use of the consensus projections, as shown below
15 in Table 5.

¹⁵*Blue Chip Financial Forecasts*, December 1, 2018, at 14.

¹⁶*Id.*

TABLE 5

GDP Forecasts

<u>Source</u>	<u>Term</u>	<u>Real GDP</u>	<u>Inflation</u>	<u>Nominal GDP</u>
Blue Chip Financial Forecasts	5-10 Yrs	2.1%	2.1%	4.2%
EIA - Annual Energy Outlook	28 Yrs	2.0%	2.3%	4.4%
Congressional Budget Office	6 Yrs	1.8%	2.1%	4.0%
Moody's Analytics	25 Yrs	2.0%	1.8%	3.8%
Social Security Administration	48 Yrs			4.4%
The Economist Intelligence Unit	25 Yrs	1.9%	1.8%	3.7%

1 The EIA in its *Annual Energy Outlook* projects real GDP out until 2050. In its
2 2018 Annual Report, the EIA projects real GDP through 2050 to be 2.0% and a
3 long-term GDP price inflation projection of 2.3%. The EIA data supports a long-term
4 nominal GDP growth outlook of 4.4%.¹⁷

5 Also, the Congressional Budget Office (“CBO”) makes long-term economic
6 projections. The CBO is projecting real GDP growth to be 1.8% during the next 6 years,
7 with a GDP price inflation outlook of 2.1%. The CBO 6-year outlook for nominal GDP
8 based on this projection is 4.0%.¹⁸

9 Moody’s Analytics also makes long-term economic projections. In its recent
10 25-year outlook to 2047, Moody’s Analytics is projecting real GDP growth of 2.0%
11 with GDP inflation of 1.8%.¹⁹ Based on these projections, Moody’s is projecting
12 nominal GDP growth of 3.8% over the next 25 years.

¹⁷DOE/EIA Annual Energy Outlook 2018 With Projections to 2050, February 2018, Table 20.

¹⁸CBO: *The Budget and Economic Outlook: 2017 to 2027*, April 2018, downloaded April 17, 2018.

¹⁹www.economy.com, *Moody’s Analytics Forecast*, January 24, 2018.

1 The Social Security Administration (“SSA”) makes long-term economic
2 projections out to 2095. The SSA’s nominal GDP projection, under its “intermediate
3 cost” scenario of approximately 50 years, is 4.4%.²⁰

4 The Economist Intelligence Unit, a division of *The Economist* and a third-party
5 data provider to MI, makes a long-term economic projection out to 2050. The
6 Economist Intelligence Unit is projecting real GDP growth of 1.9% with an inflation
7 rate of 1.8% out to 2050. The real GDP growth projection is in line with the consensus.
8 The long-term nominal GDP projection based on these outlooks is approximately
9 3.7%.²¹

10 The real GDP and nominal GDP growth projections made by these independent
11 sources support the use of the consensus for 5-year and 10-year projected GDP growth
12 outlooks as a reasonable estimate of market participants’ long-term GDP growth.

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

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

²⁰www.ssa.gov, “2018 OASDI Trustees Report,” Table VI.G4.

²¹*S&P Global Market Intelligence, Economist Intelligence Unit*, downloaded on March 14, 2018.

1 from the first stage to the third stage using a straight linear trend. For the third stage, or
2 long-term sustainable growth stage, starting in year 11, I used a 4.20% long-term
3 sustainable growth rate based on the consensus of economists' long-term projected
4 nominal GDP growth rate.

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

6 A As shown in Schedule CCW-9, the average and median DCF returns on equity for my
7 proxy group using the 13-week average stock price are 7.78% and 7.67%, respectively.

8 **Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

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

<u>Description</u>	<u>Proxy Group</u>	
	<u>Average</u>	<u>Median</u>
Constant Growth DCF Model (Analysts' Growth)	8.86%	9.30%
Constant Growth DCF Model (Sustainable Growth)	7.92%	7.69%
Multi-stage DCF Model	7.78%	7.67%

10 I conclude that my DCF studies support a ROE of 9.1%. My recommended
11 point estimate of 9.1% is primarily based on my constant growth DCF estimates, but
12 also considers the results of my other DCF models.

1 **III.G. Risk Premium Model**

2 **Q PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.**

3 A This model is based on the principle that investors require a higher return to assume
4 greater risk. Common equity investments have greater risk than bonds because bonds
5 have more security of payment in bankruptcy proceedings than common equity and the
6 coupon payments on bonds represent contractual obligations. In contrast, companies
7 are not required to pay dividends or guarantee returns on common equity investments.
8 Therefore, common equity securities are considered to be riskier than bond securities.

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

17 The second equity risk premium estimate is based on the difference between
18 regulatory commission-authorized returns on common equity and contemporary
19 "A" rated utility bond yields by Moody's. I selected the period 1986 through 2018
20 because public utility stocks consistently traded at a premium to book value during that
21 period. This is illustrated in Schedule CCW-10, which shows the market-to-book ratio
22 since 1986 for the electric utility industry was consistently above a multiple of 1.0x.
23 Over this period, an analyst can infer that authorized returns on equity were sufficient

1 to support market prices that at least exceeded book value. This is an indication that
2 commission authorized returns on common equity supported a utility's ability to issue
3 additional common stock without diluting existing shares. It further demonstrates
4 utilities were able to access equity markets without a detrimental impact on current
5 shareholders.

6 Based on this analysis, as shown in Schedule CCW-11, the average indicated
7 equity risk premium over U.S. Treasury bond yields has been 5.54%. Since the risk
8 premium can vary depending upon market conditions and changing investor risk
9 perceptions, I believe using an estimated range of risk premiums provides the best
10 method to measure the current return on common equity for a risk premium
11 methodology.

12 I incorporated five-year and 10-year rolling average risk premiums over the
13 study period to gauge the variability over time of risk premiums. These rolling average
14 risk premiums mitigate the impact of anomalous market conditions and skewed risk
15 premiums over an entire business cycle. As shown on my Schedule CCW-11, the five-
16 year rolling average risk premium over Treasury bonds ranged from 4.25% to 6.72%,
17 while the 10-year rolling average risk premium ranged from 4.38% to 6.56%.

18 As shown on my Schedule CCW-12, the average indicated equity risk premium
19 over contemporary "A" rated Moody's utility bond yields was 4.17%. The five-year
20 and 10-year rolling average risk premiums ranged from 2.88% to 5.57% and 3.20% to
21 5.33%, respectively.

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

5 A Yes. Contemporary market conditions can change dramatically during the period that
6 rates determined in this proceeding will be in effect. A relatively long period of time
7 where stock valuations reflect premiums to book value indicates that the authorized
8 returns on equity and the corresponding equity risk premiums were supportive of
9 investors' return expectations and provided utilities access to the equity markets under
10 reasonable terms and conditions. Further, this time period is long enough to smooth
11 abnormal market movement that might distort equity risk premiums. While market
12 conditions and risk premiums do vary over time, this historical time period is a
13 reasonable period to estimate contemporary risk premiums.

14 Alternatively, some studies, such as Duff & Phelps referred to later in this
15 testimony, have recommended that use of "actual achieved investment return data" in a
16 risk premium study should be based on long historical time periods. The studies find
17 that achieved returns over short time periods may not reflect investors' expected returns
18 due to unexpected and abnormal stock price performance. Short-term, abnormal actual
19 returns would be smoothed over time and the achieved actual investment returns over
20 long time periods would approximate investors' expected returns. Therefore, it is
21 reasonable to assume that averages of annual achieved returns over long time periods
22 will generally converge on the investors' expected returns.

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

4 **Q PLEASE EXPLAIN OTHER MARKET EVIDENCE YOU RELIED ON IN**
5 **DETERMINING AN APPROPRIATE EQUITY RISK PREMIUM.**

6 A The equity risk premium should reflect the market's perception of risk in the utility
7 industry today. I have gauged investor perceptions in utility risk today in Schedule
8 CCW-13, where I show the yield spread between utility bonds and Treasury bonds over
9 the last 39 years. As shown in this schedule, the average utility bond yield spreads over
10 Treasury bonds for "A" and "Baa" rated utility bonds for this historical period are 1.50%
11 and 1.94%, respectively. Yield spreads of "A" and "Baa" rated utility bonds over
12 Treasury bonds during 2017 were 1.10% and 1.48%, respectively, which are lower than
13 the 39-year averages. Similarly, yield spreads of "A" and "Baa" rated utility bonds over
14 Treasury bonds during 2018 were 1.14% and 1.56%, respectively, which are also lower
15 than the 39-year averages.

16 A current 13-week average "A" rated utility bond yield of 4.44% when
17 compared to the current Treasury bond yield of 3.24%, as shown in Schedule CCW-14,
18 page 1, implies a yield spread of 120 basis points. This current utility bond yield spread
19 is lower than the 39-year average spread for "A" rated utility bonds of 1.50%. The
20 current spread for the "Baa" rated utility bond yield of 172 basis points is 22 basis points
21 lower than the 39-year average of 1.94%.

1 These utility bond yield spreads are evidence that the market's recent perception
2 of utility risk is below average relative to the historical time period and demonstrate that
3 utilities continue to have strong access to capital in the current market.

4 **Q WHAT IS YOUR RECOMMENDED RETURN FOR ENO BASED ON YOUR**
5 **RISK PREMIUM STUDY?**

6 A Because of today's relatively low level of interest rates and uncertainty revolving around
7 forecasted interest rates, I am recommending more weight be given to the high-end risk
8 premium estimates than the low-end in order to be conservative. To calculate the equity
9 risk premium estimate, I applied 75% weight to my high-end risk premium estimates
10 and 25% to the low-end. Applying these weights, the risk premium for Treasury bond
11 yields would be approximately 6.10%,²² which is considerably higher than the 33-year
12 average risk premium of 5.54% and reasonably reflective of the 3.6% projected
13 Treasury bond yield. An equity risk premium of 6.10% added to the projected Treasury
14 bond yield of 3.6% produces an estimated cost of equity of 9.70%.

15 Similarly, applying these weights to the utility risk premium indicates a risk
16 premium of 4.90%.²³ This risk premium is well above the 33-year historical average
17 risk premium of 4.17%. Adding this risk premium to the 13-week average A-rated
18 utility bond yield of 4.44%, produces an estimated cost of equity of approximately 9.3%.
19 Adding this risk premium to the 13-week average Baa-rated utility bond yield of 4.96%,
20 produces an estimated cost of equity of approximately 9.9%. The estimated cost of

²² $(4.25\% * 25\%) + (6.72\% * 75\%) = 6.10\%$.

²³ $(2.88\% * 25\%) + (5.57\% * 75\%) = 4.90\%$.

1 equity using the risk premium over utility bond yields is in the range of 9.3% to 9.9%,
2 with an average of 9.6%.

3 Based on this methodology, my Treasury bond risk premium and my utility bond
4 risk premium indicate a return in the range of 9.6% to 9.7%, with a midpoint of 9.65%,
5 rounded to 9.7%. I conclude that a fair ROE based on the risk premium methodology
6 is 9.7%.

7 **III.H. Capital Asset Pricing Model (“CAPM”)**

8 **Q PLEASE DESCRIBE THE CAPM.**

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

$$13 \quad R_i = R_f + B_i \times (R_m - R_f) \text{ where:}$$

14 R_i = Required return for stock i

15 R_f = Risk-free rate

16 R_m = Expected return for the market portfolio

17 B_i = Beta - Measure of the risk for stock

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

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

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

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

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

14 A As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
15 yield is 3.60%.²⁴ The current 30-year Treasury bond yield is 3.24%, as shown in
16 Schedule CCW-14. Again, in an effort to provide a conservative ROE estimate, I used
17 *Blue Chip Financial Forecasts'* projected 30-year Treasury bond yield of 3.60% for my
18 CAPM analysis.

²⁴*Blue Chip Financial Forecasts*, January 1, 2019 at 2.

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

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

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

17 **Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

18 A As shown in Schedule CCW-15, the proxy group average *Value Line* beta estimate is
19 0.60.

1 Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

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

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

9 Duff & Phelps' *2018 SBBI Yearbook* estimates the historical arithmetic average
10 real market return over the period 1926 to 2017 to be 9.0%.²⁵ A current consensus for
11 projected inflation, as measured by the Consumer Price Index ("CPI"), is 2.1%.²⁶ Using
12 these estimates, the expected market return is 11.3%.²⁷ The market risk premium then
13 is the difference between the 11.3% expected market return and my 3.6% risk-free rate
14 estimate, or 7.7%.

15 My historical estimate of the market risk premium was also calculated by using
16 data provided by Duff & Phelps in its *2018 SBBI Yearbook*. Over the period 1926
17 through 2017, the Duff & Phelps study estimated that the arithmetic average of the
18 achieved total return on the S&P 500 was 12.1%²⁸ and the total return on long-term
19 Treasury bonds was 6.00%.²⁹ The indicated market risk premium is 6.1% (12.1% -
20 6.0% = 6.1%).

²⁵*Duff & Phelps, 2018 SBBI Yearbook at 6-18.*

²⁶*Blue Chip Financial Forecasts*, January 1, 2019 at 2.

²⁷ $\{ [(1 + 0.090) * (1 + 0.021)] - 1 \} * 100$.

²⁸*Duff & Phelps, 2018 Yearbook at 6-17.*

²⁹*Id.*

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

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

6 A The Duff & Phelps analysis indicates a market risk premium falls somewhere in the
7 range of 5.0% to 7.1%. My market risk premium falls in the range of 6.1% to 7.7%.
8 My average market risk premium of 6.9% is at the high end of the Duff & Phelps range.

9 **Q HOW DOES DUFF & PHELPS MEASURE A MARKET RISK PREMIUM?**

10 A Duff & Phelps makes several estimates of a forward-looking market risk premium based
11 on actual achieved data from the historical period of 1926 through 2017 as well as
12 normalized data. Using this data, Duff & Phelps estimates a market risk premium
13 derived from the total return on large company stocks (S&P 500), less the income return
14 on Treasury bonds. The total return includes capital appreciation, dividend or coupon
15 reinvestment returns, and annual yields received from coupons and/or dividend
16 payments. The income return, in contrast, only reflects the income return received from
17 dividend payments or coupon yields. Duff & Phelps claims the income return is the
18 only true risk-free rate associated with Treasury bonds and is the best approximation of
19 a truly risk-free rate.³⁰ I disagree with this assessment from Duff & Phelps because it

³⁰*Duff & Phelps 2017 Valuation Handbook* at 3-32.

1 does not reflect a true investment option available to the marketplace and therefore does
2 not produce a legitimate estimate of the expected premium of investing in the stock
3 market versus that of Treasury bonds. Nevertheless, I will use Duff & Phelps’
4 conclusion to show the reasonableness of my market risk premium estimates.

5 Duff & Phelps’ range is based on several methodologies. First, Duff & Phelps
6 estimates a market risk premium of 7.07% based on the difference between the total
7 market return on common stocks (S&P 500) less the income return on 20-year Treasury
8 bond investments over the 1926-2017 period.³¹

9 Second, Duff & Phelps used the Ibbotson & Chen supply-side model which
10 produced a market risk premium estimate of 6.04%.³²

11 Duff & Phelps explains that the historical market risk premium based on the
12 S&P 500 was influenced by an abnormal expansion of price-to-earnings (“P/E”) ratios
13 relative to earnings and dividend growth during the period, primarily over the last 30
14 years. Duff & Phelps believes this abnormal P/E expansion is not sustainable.³³
15 Therefore, Duff & Phelps adjusted this market risk premium estimate to normalize the
16 growth in the P/E ratio to be more in line with the growth in dividends and earnings.

17 Finally, Duff & Phelps develops its own recommended equity, or market risk
18 premium by employing an analysis that takes into consideration a wide range of
19 economic information, multiple risk premium estimation methodologies, and the current
20 state of the economy by observing measures such as the level of stock indices and

³¹*Duff & Phelps 2018 Valuation Handbook* at 3-45.

³²*Id.*

³³*Duff & Phelps 2018 Valuation Handbook* at 3-43.

1 corporate spreads as indicators of perceived risk. Based on this methodology, and
2 utilizing a “normalized” risk-free rate of 3.5%, Duff & Phelps concludes the current
3 expected, or forward-looking, market risk premium is 5.0%, implying an expected
4 return on the market of 8.5%.³⁴

5 It should be noted that Duff & Phelps’ market risk premiums are measured over
6 a 20-year Treasury bond. Because I am relying on a projected 30-year Treasury bond
7 yield, the results of my CAPM analysis should be considered conservative estimates for
8 the cost of equity.

9 **Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

10 **A** As shown in Schedule CCW-16 based on my low market risk premium of 6.1% and my
11 high market risk premium of 7.7%, a risk-free rate of 3.6%, and a beta of 0.60, my
12 CAPM analysis produces a return of approximately 7.3% to 8.2%. Based on my
13 assessment of risk premiums in the current market, as discussed above, I recommend
14 the high-end CAPM return estimate because it closely aligns the market risk premium
15 with the prevailing risk-free rate. I recommend a CAPM return of 8.2%.

³⁴*Duff & Phelps 2018 Valuation Handbook* at 3-32 and 3-33.

1 **III.I. Return on Equity Summary**

2 **Q** **BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
3 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY**
4 **DO YOU RECOMMEND FOR ENO?**

5 **A** Based on my analyses described above, I estimate the ENO's current market cost of
6 equity to be in the range of 9.0% and 9.7% with a midpoint estimate of 9.35%. The
7 high-end of my range is based on my risk premium studies, while the low-end is based
8 on a combination of my DCF and CAPM studies.

<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	9.1%
Risk Premium	9.7%
CAPM	8.2%

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

1 Q WHAT IS THE OVERALL RATE OF RETURN IS PRODUCED AS A RESULT
2 OF YOUR RECOMMENDATIONS?

3 A As shown in Table 8 below, the overall rate of return produced by my recommended
4 ROE of 9.35% and the Company's proposed capital structure is 7.18%.

<u>Description</u>	<u>Weight</u>	<u>Cost Rates</u>	<u>Weighted Cost</u>
Long-Term Debt	47.80%	4.82%	2.30%
Common Equity	<u>52.20%</u>	9.35%	<u>4.88%</u>
Total	100.00%		7.18%

5 **IV. RESPONSE TO ENO WITNESS MR. ROBERT B. HEVERT**

6 **IV.A. Summary of Rebuttal**

7 Q WHAT RETURN ON COMMON EQUITY IS ENO PROPOSING FOR THIS
8 PROCEEDING?

9 A The Company has requested a ROE of 10.75% based on the recommended range of
10 10.25% to 11.25% sponsored by its witness, Mr. Robert Hevert.³⁵ His recommended
11 ROE is based on: (1) a constant growth DCF analysis, (2) a multi-stage DCF analysis,
12 (3) a traditional CAPM, and (4) a Bond Yield Plus Risk Premium methodology.

³⁵Hevert Direct at 5.

1 **Q ARE MR. HEVERT’S ROE ESTIMATES REASONABLE?**

2 A No. Mr. Hevert’s estimated ROE is overstated and should be rejected. Mr. Hevert’s
3 analyses produce excessive results for various reasons, including the following:

4 1. His constant growth DCF results based on the high growth rates are unsustainable
5 and therefore unreasonable;

6 2. His multi-stage DCF is based on:

7 a. an unrealistic long-term GDP growth estimate that is not aligned with market
8 participants’ outlooks;

9 b. a manipulated dividend payout ratio adjustment; and

10 c. a terminal stock price that is produced by an unjustified price-to-earnings
11 (“P/E”) ratio assumption;

12 3. His CAPM is based on inflated market risk premiums; and

13 4. His Bond Yield Plus Risk Premium studies are based on inflated utility equity risk
14 premiums.

15 **Q PLEASE SUMMARIZE MR. HEVERT’S ROE ESTIMATES.**

16 A Mr. Hevert’s ROE estimates are summarized in Table 9 below. In Column 2, I show
17 the results with prudent and sound adjustments to correct the flaws referenced above.

18 With such adjustments to his \DCF, CAPM, and Risk Premium return estimates,

19 Mr. Hevert’s own studies show that my 9.35% recommended ROE for ENO is
20 reasonable.

TABLE 9

Hevert's Return on Equity Estimates

<u>Description</u>	<u>Mean¹</u>	<u>Adjusted²</u>
	(1)	(2)
<u>Constant Growth DCF</u>		
30-Day Average	9.24%	9.24%
90-Day Average	9.29%	9.29%
180-Day Average	<u>9.16%</u>	<u>9.16%</u>
Average Constant Growth DCF	9.23%	9.23%
<u>Multi-Stage DCF – Gordon Model</u>		
30-Day Average	9.23%	8.57%
90-Day Average	9.28%	8.70%
180-Day Average	<u>9.14%</u>	<u>8.36%</u>
Average	9.22%	8.54%
<u>Multi-Stage DCF – Terminal P/E</u>		
30-Day Average	9.89%	8.57%
90-Day Average	10.02%	8.70%
180-Day Average	<u>9.67%</u>	<u>8.36%</u>
Average	9.86%	8.54%
DCF Range	9.2% to 9.9%	8.5% to 9.2%
<u>CAPM Results (Bloomberg Beta)</u>		
Current 30-Yr Treasury (BB – 3.11%)	10.13%	7.40%
Current 30-Yr Treasury (VL – 3.11%)	10.34%	7.40%
Near-Term Projected 30-Yr Treasury (BB – 3.48%)	10.50%	7.77%
Near-Term Projected 30-Yr Treasury (VL – 3.48%)	10.71%	7.77%
<u>CAPM Results (Value Line Beta)</u>		
Current 30-Yr Treasury (BB – 3.11%)	11.66%	8.33%
Current 30-Yr Treasury (VL – 3.11%)	11.91%	8.33%
Near-Term Projected 30-Yr Treasury (BB – 3.48%)	12.03 %	8.70%
Near-Term Projected 30-Yr Treasury (VL – 3.48%)	12.28/%	8.70%
<u>Risk Premium</u>		
Current 30-Yr Treasury (3.11%)	9.96%	9.21%
Near-Term Projected 30-Yr Treasury (3.48%)	10.03%	9.58%
Long-Term Projected 30-Yr Treasury (4.30%)	10.28%	Reject
Range	10.25% to 11.25%	8.7% to 9.6%
Recommended ROE	10.75%	9.35%
Sources: ¹ Hevert Direct at 22, 30, 34 and 37; Exhibits RBH-2 through RBH-7.		
² Schedule CCW-17.		

1 **IV.B. Hevert DCF**

2 **IV.B.1. Hevert Constant Growth DCF**

3 **Q PLEASE DESCRIBE MR. HEVERT'S CONSTANT GROWTH DCF RETURN**
4 **ESTIMATES.**

5 A His constant growth DCF returns are developed on his Exhibit RBH-2. Mr. Hevert's
6 constant growth DCF models are based on consensus growth rates published by Zacks
7 and First Call and individual growth rate projections made by *Value Line*.

8 He relied on dividend yield calculations based on average stock prices over three
9 different time periods: 30-day, 90-day, and 180-day ending June 15, 2018 – all
10 reflecting one-half year dividend growth adjustments.

11 **Q ARE THE CONSTANT GROWTH DCF RESULTS PRODUCED BY MR.**
12 **HEVERT REASONABLE?**

13 A Mr. Hevert's constant growth DCF mean results generally support a ROE no higher than
14 9.3% when considering the average of his growth rate estimates. However, Mr. Hevert
15 seems to rely heavily on the highest growth rate estimates to support an unreasonably
16 high ROE. Mr. Hevert's "high ROE" results are based on the highest growth rate for
17 each company provided by each of his sources. The average of the high growth rates is
18 6.53%. This is approximately 234 basis points higher than the expected growth in the
19 US economy. As I described in detail above, it is unreasonable to expect a company to

1 outgrow the economy in which it sells goods and services in perpetuity, which happens
2 to be the time period of the constant growth DCF model.

3 Should the CNO give weight to any of Mr. Hevert's DCF analyses, it should be
4 his constant growth DCF mean ROE results. Under no circumstances should the CNO
5 give weight to Mr. Hevert's DCF results based on the highest growth rate estimates.

6 **IV.B.2. Hevert Multi-stage DCF**

7 **Q DID MR. HEVERT PERFORM A MULTI-STAGE DCF ANALYSIS?**

8 A Yes, he did. Mr. Hevert developed two multi-stage DCF analyses. The first, his Gordon
9 Model multi-stage DCF model, incorporates a long-term steady-state growth rate of
10 5.45%.³⁶ In addition, this model is based on a flawed long-term payout assumption.
11 Specifically, Mr. Hevert assumes that the long-term projected payout ratio will converge
12 to the industry average dividend payout.

13 The second, his terminal P/E DCF model, is intended to expand the Gordon
14 model outlined above to also incorporate terminal price using the P/E ratio of 20.54 for
15 each company in the proxy group.³⁷

16 **Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S MULTI-STAGE DCF**
17 **ANALYSES?**

18 A Mr. Hevert's multi-stage DCF analyses are impacted by various assumptions, all of
19 which produce a DCF return estimate that is simply inflated.

³⁶Hevert Direct Testimony at 28-29.

³⁷ENO Exhibit RBH-3, pages 28-54.

1 First, as I will discuss in detail below, I believe Mr. Hevert's multi-stage DCF
2 model is unreliable because he relied on a long-term GDP growth rate that does not
3 reflect consensus of market participant outlooks for future GDP growth.

4 Second, the inflation of the multi-stage DCF results largely reflects assumptions
5 and inputs made by Mr. Hevert to manipulate dividend payout ratios and therefore cash
6 flow projections during the transitional stage of his model. His dividend payout
7 assumption is flawed and simply inflates dividend payments and DCF results.

8 Finally, his terminal value P/E ratio is arbitrarily based on a flawed assumption
9 that the proxy group P/E ratio will not change as the growth rate outlook changes. Mr.
10 Hevert's terminal P/E ratio assumption is not consistent with his long-term growth rate
11 assumption, and has the effect of further inflating his multi-stage DCF return estimate.
12 The manipulative effect of these assumptions is clearly illustrated by Mr. Hevert's
13 inflated results.

14 **Q HOW DID MR. HEVERT CALCULATE A LONG-TERM GROWTH RATE?**

15 A Mr. Hevert relied on the long-term historical real GDP growth of 3.21%, as measured
16 over the period 1929 through 2017, and a forward inflation rate outlook of 2.16%. Mr.
17 Hevert's inflation rate outlook is based on two projections. First, he derived an inflation
18 rate outlook of 2.13% based on the average of the 30-day average spread between the
19 yields on long-term nominal Treasuries and long-term Treasury Inflation-Protected
20 Securities ("TIPS"). Second, he used the CPI projection for 2025-2029 of 2.20% from
21 *Blue Chip Financial Forecasts*. The midpoint inflation rate outlook is 2.16% (2.13%
22 to 2.20%).

1 Using an inflation factor of 2.16% and an historical real GDP growth of 3.21%,
2 Mr. Hevert produced a nominal GDP growth rate outlook of 5.45%.³⁸

3 **Q IS MR. HEVERT’S LONG-TERM GROWTH RATE ESTIMATE OF 5.45%**
4 **REASONABLE?**

5 A No. The methodology used by Mr. Hevert to calculate this growth rate is not based on
6 market participants’ outlooks for future growth opportunities. Mr. Hevert’s GDP
7 growth rate projection simply is not comparable to the consensus of independent
8 analysts’ projections of future GDP growth and, therefore, does not reasonably reflect
9 investors’ outlook used to make investment decisions.

10 **Q WHY DO MR. HEVERT’S GDP GROWTH PROJECTIONS NOT ALIGN**
11 **WITH INDEPENDENT MARKET PARTICIPANTS’ GDP GROWTH**
12 **PROJECTIONS?**

13 A Mr. Hevert’s long-term growth rate of 5.45% is based on the historical real GDP growth
14 rate of 3.21% and projected inflation. This historical real GDP growth rate is
15 considerably higher than the real GDP growth projection of 2.1% as measured by the
16 consensus of independent economists which is published in the *Blue Chip Financial*
17 *Forecasts*, and also by most, if not all, market participants that are projecting real GDP
18 going forward to be 2.1% as outlined in my Table 9 above.

³⁸[1.0321 x 1.0216– 1], Hevert Direct Testimony at 28-29.

1 In order to measure the current market cost of equity demanded by investors in
2 today's marketplace, it is necessary to reasonably capture the outlooks by investors that
3 have formed evaluations of observable stock prices used in the various time periods
4 underlying Mr. Hevert's and my DCF studies. In this regard, historical GDP growth
5 rates dating back to 1929 do not reflect the outlooks of current market participants. Mr.
6 Hevert's long-term growth rate simply ignores the current consensus among
7 independent market participants' outlooks for future growth, and therefore he is neither
8 reasonably nor accurately reflecting the data likely relied upon by current market
9 participants to value utility stocks.

10 A comparison of Mr. Hevert's GDP growth rate and the consensus of
11 independent economists' projected growth over the next 5 and 10 years is shown in
12 Table 10 below. As shown in this table, Mr. Hevert's GDP rate of 5.45% reflects real
13 GDP of 3.2% and an inflation adjusted GDP of 2.2%. However, the consensus of
14 independent economists' projections of nominal GDP over the next 5 and 10 years are
15 both 4.20%.

16 As is clearly evident in Table 10 below, Mr. Hevert's historical GDP growth is
17 much higher than, and not representative of, the consensus of independent economists'
18 expected forward-looking GDP growth.

TABLE 10
GDP Projections

<u>Description</u>	<u>GDP Inflation</u>	<u>Real GDP</u>	<u>Nominal GDP</u>
Mr. Hevert ¹	2.2%	3.2%	5.45%
Consensus of Economists (5-Year) ²	2.1%	2.1%	4.20%
Consensus of Economists (10-Year) ²	2.1%	2.1%	4.20%

Sources:
¹Hevert Direct Testimony at 28-29.
²*Blue Chip Financial Forecasts*, December 1, 2018 at 14.

1 **Q PLEASE EXPLAIN HOW MR. HEVERT’S MULTI-STAGE DCF MODEL**
2 **OVERSTATED DIVIDEND CASH FLOWS BECAUSE OF HIS LONG-TERM**
3 **DIVIDEND PAYOUT RATIO ASSUMPTION.**

4 **A Mr. Hevert modified analysts’ current dividend payout projections of approximately**
5 **63.95% for his proxy group and assumed that eventually they would converge to the**
6 **historical industry average dividend payout ratio of 65.57%.³⁹**

³⁹*Id.*

1 **Q IS MR. HEVERT'S ASSUMPTION THAT THE PROXY GROUP'S PAYOUT**
2 **RATIO WILL INCREASE TOWARD THE INDUSTRY HISTORICAL**
3 **AVERAGE PAYOUT RATIO REASONABLE?**

4 A No. The proxy group's current dividend payout ratio is reasonably consistent with the
5 projection for the industry average payout ratio expected over time. As such, there is
6 no basis to assume that every utility in the industry will converge upon the same payout
7 ratio. Rather, it is more balanced and logical to assume that payout ratios should be
8 reasonably consistent with the target industry payout ratio over time, and it is important
9 to recognize that the proxy group is already at that target. Because the proxy group is
10 reasonably aligned with outlooks for the industry as a whole going forward, there is
11 simply no logical basis to assume the payout ratio will increase as Mr. Hevert assumed.
12 Further, as I discuss below, this assumption has a significant impact on the cash flows
13 underlying Mr. Hevert's projections. Therefore, this unsupported payout ratio
14 adjustment caused an unreasonable increase to the multi-stage DCF result.

15 **Q PLEASE EXPLAIN WHY MR. HEVERT'S ASSUMPTION OF AN**
16 **INCREASED PAYOUT RATIO FOR HIS PROXY GROUP BASED ON**
17 **INDUSTRY AVERAGES INCREASES HIS MULTI-STAGE DCF ESTIMATE.**

18 A By assuming an increased payout ratio, Mr. Hevert is assuming that dividend growth
19 will exceed earnings growth during the intermediate stage growth period. This elevated
20 growth projection for dividends increases the expected cash flows in the DCF study,
21 which artificially increases the DCF return estimate. Because this estimate is not based
22 on any market participant's outlook for the proxy group generally, and since Mr. Hevert

1 has not provided any information that the proxy group is not reasonably consistent with
2 the range of expected payout ratios for the electric utility industry as a whole, this
3 assumption simply is unreliable and inflates the DCF return estimate.

4 **Q PLEASE DESCRIBE MR. HEVERT'S ASSUMPTION IN DERIVING THE**
5 **TERMINAL GROWTH VALUE FOR THE COMPANIES IN HIS**
6 **MULTI-STAGE DCF ANALYSIS.**

7 A Mr. Hevert states that he relied on a terminal value based on the current P/E ratio of the
8 companies in his proxy group.⁴⁰ However, Mr. Hevert provided very limited discussion
9 in regard to his terminal P/E ratio assumption. He simply used a constant terminal P/E
10 ratio of 20.54 for all of the companies included in his proxy group.⁴¹

11 **Q IS THIS CONSTANT P/E RATIO ASSUMPTION REASONABLE WITHIN HIS**
12 **MULTI-STAGE DCF STUDY?**

13 A No. The P/E ratio will change as the growth outlooks for each of the proxy group
14 companies' change. Reflecting the current capital investment period occurring within
15 the industry, the current P/E ratio reflects an outlook for an accelerated growth rate
16 period. This accelerated growth period is then followed by a contraction to a lower
17 sustainable long-term growth rate. Under Mr. Hevert's assumption, however, there will
18 be no contraction. Instead, the current P/E ratio will remain in effect during the terminal
19 growth stage. That is an unreasonable assumption because after the current accelerated

⁴⁰30.

⁴¹ENO Exhibit RBH-3, pages 28-54.

1 growth period ends, and growth declines to a lower sustainable level, it is reasonable to
2 expect that the P/E ratio would also respond to those lower growth outlooks and decline.
3 By overstating the terminal value price, based on a P/E ratio that does not reflect the
4 decline in growth, Mr. Hevert is overstating the cash flows in his DCF study and
5 overstating the multi-stage DCF return estimate.

6 **Q HOW CAN MR. HEVERT'S MODEL BE CORRECTED TO ELIMINATE HIS**
7 **UNREASONABLE ASSUMPTIONS?**

8 A By adjusting the GDP growth outlook for long-term sustainable growth down to the
9 consensus of independent economists' outlooks for future nominal GDP growth of
10 4.20% (rather than Mr. Hevert's estimate of 5.45% which does not reflect the consensus
11 of independent economists' growth outlooks), and correcting the long-term dividend
12 growth estimates in the multi-stage DCF model for the erroneous payout ratio and P/E
13 ratio assumptions made by Mr. Hevert, his multi-stage DCF model would produce a
14 return more reflective of current market participant investment outlooks.

15 Revising Mr. Hevert's multi-stage growth to correct all three of the identified
16 flaws produces the multi-stage DCF return estimates shown in Table 11 below.

<u>Terminal P/E Method</u>	<u>Mean¹</u> (1)	<u>Adjusted²</u> (2)
30-Day Average	9.89%	8.57%
90-Day Average	10.02%	8.70%
180-Day Average	<u>9.67%</u>	<u>8.36%</u>
Average	9.86%	8.54%

Sources:
¹Hevert Direct Testimony at 30.
²Schedule CCW-17.

1 **IV.C. Mr. Hevert's CAPM Studies**

2 **Q PLEASE DESCRIBE MR. HEVERT'S CAPM ANALYSIS.**

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

7 $B_i \times (R_m - R_f)$ where:

8 B_i = Beta - Measure of the risk for stock
9 R_m = Expected return for the market portfolio
10 R_f = Risk-free rate

11 **Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. HEVERT'S CAPM**
12 **STUDY.**

13 A I have two primary issues with Mr. Hevert's CAPM study. First, I believe the market
14 risk premiums he used in all of his CAPM studies are overstated because they do not

1 reflect a reasonable estimate of the expected return on the market. My second concern,
2 specifically with the market risk premium used in Mr. Hevert's CAPM return estimates
3 using a projected risk-free rate, is that he does not measure the market risk premium in
4 relationship to the projected risk-free rate. Rather, all market risk premium estimates
5 are based on his current risk-free rate projections. This causes a mismatch in the market
6 risk premium estimates used in Mr. Hevert's CAPM projections that are based on
7 projected risk-free rates.

8 **Q PLEASE DESCRIBE MR. HEVERT'S MARKET RISK PREMIUMS.**

9 A Mr. Hevert derived his market risk premiums by conducting a DCF analysis for the
10 market. Mr. Hevert used two market risk premium estimates. Mr. Hevert's market risk
11 premiums of 12.62% (Bloomberg) and 12.99% (*Value Line*) are based on constant
12 growth DCF returns of 15.73% and 16.10%, respectively, less the current 30-year
13 Treasury bond yield of 3.11%.⁴²

14 **Q WHAT ISSUES DO YOU HAVE WITH MR. HEVERT'S DCF-DERIVED**
15 **MARKET RISK PREMIUM ESTIMATES?**

16 A Mr. Hevert's DCF-derived market risk premiums are based on market returns of
17 approximately 15.73% and 16.10%, which consist of growth rate components of
18 approximately 13.73% and 14.00% and a market-weighted expected dividend yield of
19 approximately 2.00% and 2.10%, respectively.⁴³ As discussed above with respect to

⁴²Hevert Direct Testimony at 32, and ENO Exhibit RBH-4.

⁴³*Id.* (15.73% = 13.73% + 2.00% and 16.10% = 14.00% + 2.10%).

1 my own DCF model, the constant growth DCF model requires a long-term sustainable
2 growth rate. Mr. Hevert's market growth rates of approximately 13.73% and 14.00%
3 are far too high to be a rational outlook for sustainable long-term market growth. These
4 growth rates are more than two times the growth rate of the U.S. GDP long-term growth
5 outlook of 4.20%.

6 As a result of these unreasonable long-term market growth rate estimates,
7 Mr. Hevert's market DCF returns used within his CAPM analysis are inflated and not
8 reliable. Consequently, Mr. Hevert's 12.62% (Bloomberg) and 12.99% (*Value Line*)
9 market risk premiums should be given minimal weight in estimating the Company's
10 CAPM-based cost of common equity.

11 **Q DO HISTORICAL ACTUAL RETURNS ON THE MARKET SUPPORT**
12 **MR. HEVERT'S PROJECTED MARKET RETURNS?**

13 A No. This is significant because Mr. Hevert does rely on historical market returns to
14 produce real returns on the market for use in developing his GDP growth forecast in his
15 DCF study. Using the same line of logic, historical data shows just how unreasonable
16 Mr. Hevert's projected DCF return on the market is going forward.

17 **Q PLEASE EXPLAIN.**

18 A Duff & Phelps estimates the actual capital appreciation for the S&P 500 over the period
19 1926 through 2017 to have been 6.0% to 7.8%.⁴⁴ This compares to Mr. Hevert's

⁴⁴Duff & Phelps, *2018 SBI Yearbook* at 6-17.

1 projected growth of the market of 13.73% to 14.00%. Further, historically the geometric
2 growth of the market of 6.0%⁴⁵ has reflected geometric growth of GDP over this same
3 time period of approximately 6.4%.

4 This review of historical data establishes two facts very clearly. First, historical,
5 actual achieved growth has been substantially less than projected by Mr. Hevert.
6 Second, historical growth of the market has tracked historical growth of the U.S. GDP.
7 Projected growth of the U.S. GDP now is closer to the 4.0% to 4.5% range. All of this
8 information strongly supports the conclusion that Mr. Hevert's projected growth on the
9 market of 13.73% to 14.00% is substantially overstated. A review of these data clearly
10 demonstrate how the market return estimates produced by Mr. Hevert are unreasonable
11 and inflated.

12 **Q DO YOU HAVE ANY OTHER ISSUES WITH MR. HEVERT'S MARKET RISK**
13 **PREMIUM ESTIMATES?**

14 **A** Yes. Mr. Hevert has made an error in the estimate of his market risk premium. Mr.
15 Hevert measures the market risk premium based on his DCF return on the market less
16 his current risk-free rate estimate of 3.11%.⁴⁶ He then relies on the market risk
17 premiums of 12.62% and 12.99% as risk premium estimates used in his CAPM study
18 on his Exhibit RBH-6. The error in his calculation is that the market risk premium that
19 corresponds with a risk-free rate of 3.11% should not be the same as the market risk
20 premium that corresponds with a risk-free rate of 3.48% as he uses on his Exhibit RBH-

⁴⁵*Id.*

⁴⁶ENO Exhibit RBH-4.

1 6. Rather, the market risk premium that corresponds with a risk-free rate of 3.48%
2 should be the difference between his market return estimate of 15.73% and 3.48%, or
3 12.25%, and his market return estimate of 16.10% less his 3.48% risk-free rate, or
4 12.62%. In other words, Columns 3 and 4 of lines “Near-Term Projected 30-Year
5 Treasury” of Mr. Hevert’s Exhibit RBH-5 are overstated. Overstating the market risk
6 premium in his CAPM study where he uses a projected Treasury bond yield produces a
7 flawed and erroneous result that overstates a fair CAPM return estimate for ENO in this
8 proceeding.

9 **Q CAN MR. HEVERT’S CAPM ANALYSIS BE REVISED TO REFLECT A**
10 **MORE REASONABLE MARKET RISK PREMIUM AND RECENT**
11 **RISK-FREE RATES?**

12 **A** Yes. Using Mr. Hevert’s risk-free rates of 3.11% and 3.48%, the average Bloomberg
13 and *Value Line* beta estimates of 0.556 and 0.677,⁴⁷ respectively, and my calculated
14 high-end market risk premium of 7.7%, Mr. Hevert’s CAPM would be no higher than
15 8.7%.

⁴⁷ENO Exhibit RBH-6.

1 **IV.D. Bond Yield Plus (“BYP”) Risk Premium**

2 **Q PLEASE DESCRIBE MR. HEVERT’S BYP RISK PREMIUM**
3 **METHODOLOGY.**

4 A As shown on his Exhibit RBH-6, Mr. Hevert constructs a risk premium ROE estimate
5 based on the premise that equity risk premiums are inversely related to interest rates.
6 He estimates the average electric equity risk premiums of 4.63% over the period January
7 1980 through June 2018. Then he applies a regression formula to the current, near-term,
8 and long-term projected 30-year Treasury bond yields of 3.11%, 3.48%, and 4.30% to
9 produce electric equity risk premiums of 6.85%, 6.55%, and 5.98%, respectively. Thus,
10 he calculates cost of equity estimates of 9.96%, 10.03%, and 10.28%, respectively.

11 **Q IS MR. HEVERT’S BYP RISK PREMIUM METHODOLOGY REASONABLE?**

12 A No. Mr. Hevert’s contention that there is a simplistic inverse relationship between
13 equity risk premiums and interest rates is not supported by academic research. While
14 academic studies have shown that, in the past, there has been an inverse relationship
15 among these variables, researchers have found that the relationship changes over time
16 and is influenced by changes in perception of the risk of bond investments relative to
17 equity investments, and not simply changes to interest rates.⁴⁸

18 In the 1980s, equity risk premiums were inversely related to interest rates, but
19 that was likely attributable to the interest rate volatility that existed at that time. As

⁴⁸Robert S. Harris and Felicia C. Marston, “The Market Risk Premium: “Expectational Estimates Using Analysts’ Forecasts,” *Journal of Applied Finance*, Volume 11, No. 1, 2001 at 10-13; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, “The Risk Premium Approach to Measuring a Utility’s Cost of Equity,” *Financial Management*, Spring 1985 at 42-43.

1 such, when interest rates were more volatile, perceptions of bond investment risk
2 increased relative to the investment risk of equities. This changing perception of
3 investment risk caused changes in equity risk premiums.

4 In today's marketplace, interest rate volatility is not as extreme as it was during
5 the 1980s.⁴⁹ Nevertheless, changes in the perceived risk of bond investments relative
6 to equity investments still drive changes in equity premiums and cannot be measured
7 simply by observing nominal interest rates. Changes in nominal interest rates are
8 heavily influenced by changes to inflation outlooks, which also change equity return
9 expectations. As such, the relevant factor needed to explain changes in equity risk
10 premiums is the relative changes between the risk of equity versus debt investments,
11 and not simply changes in interest rates.

12 Importantly, Mr. Hevert's analysis simply ignores the differentials in investment
13 risk differentials. He bases his adjustment to the equity risk premium exclusively on
14 changes in nominal interest rates. This is a flawed methodology that does not produce
15 accurate or reliable risk premium estimates.

16 **Q DO YOU BELIEVE THE RELATIONSHIP SHOWN IN MR. HEVERT'S**
17 **REGRESSION ANALYSIS IS APPLICABLE TO THE CURRENT CAPITAL**
18 **MARKET ENVIRONMENT?**

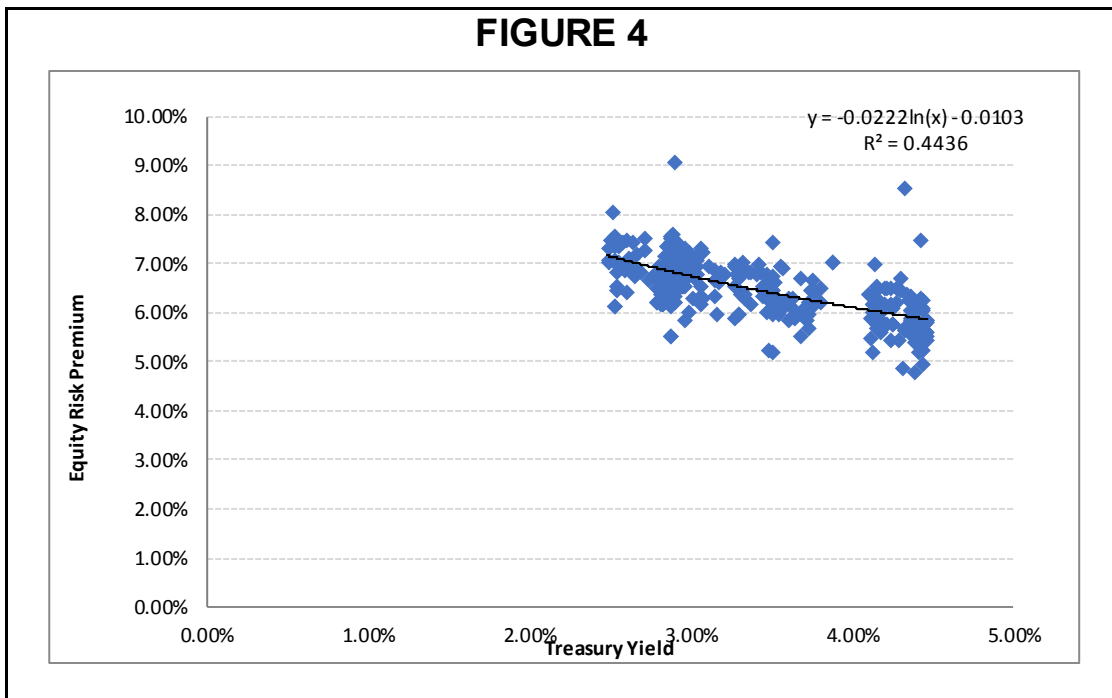
19 **A** No. The strength of a relationship between the dependent variable (risk premium) and
20 the independent variable (nominal interest rates) in a regression analysis is most notably

⁴⁹Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Spring 1985 at 44.

1 explained in the R-squared value. The R-squared value measures how much
2 explanatory power the independent variable has on the dependent variable. A higher
3 value indicates a stronger relationship.

4 As shown in Mr. Hevert's testimony at page 31 (Chart 1), the R-squared value
5 is 73.7% when measuring the time period from January 1980 through June 2018.
6 However, as shown below in Figure 4, when only measuring the relationship between
7 the risk premium and interest rates over the 2010 through April 2018 post-recession
8 time-period, the R-squared measure declines to 44.97%.

9 A declining R-squared indicates a weakening of the statistical predictability
10 produced from these regression studies. As such, the more recent period seems to
11 support the academic and practitioner understanding that equity risk premiums are
12 impacted by investment risk differentials and not simply changes in interest rates. The
13 weakening of the explanatory power Mr. Hevert's regression study supports this widely
14 accepted premise. For these reasons, Mr. Hevert's belief that equity risk premiums can
15 be gauged by only changes in interest rates is simply not supported by his own
16 regression studies, as well as the consensus among academics and market practitioners.



1 **Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING MR. HEVERT’S**
2 **BYP RISK PREMIUM METHODOLOGY?**

3 A Yes. Mr. Hevert’s use of a long-term projected bond yield of 4.30%⁵⁰ is not reflective
4 of market participants’ outlooks for ENO’s cost of capital during the period rates
5 determined in this proceeding will be in effect. This bond yield is largely based on
6 projections of Treasury bond yields five to 10 years out. Those projections are highly
7 uncertain and in any event do not reflect the cost of capital in the test period or even the
8 period over the next two to three years, the period in which rates determined in this
9 proceeding will largely be in effect. As such, the risk premium methodology should be
10 based on observable bond yields in the market today, or at most reflect bond yield
11 projections over the next two to three years, the rate-effective period in this case.

⁵⁰ENO Exhibit RBH-7.

1 **Q** **CAN MR. HEVERT’S BYP RISK PREMIUM ANALYSIS BE REVISED TO**
2 **REFLECT CURRENT PROJECTIONS OF TREASURY YIELDS?**

3 **A** Yes. Mr. Hevert’s simplistic and incomplete notion that equity risk premiums change
4 only with changes to nominal interest rates should be rejected. Adding my weighted
5 average equity risk premium over Treasury bonds of 6.1%, as described above, to his
6 Treasury yields of 3.11% and 3.48%, produces risk premium results of 9.21% to 9.58%,
7 respectively.

8 **IV.E. Additional Risks**

9 **Q** **DID MR. HEVERT CONSIDER ADDITIONAL BUSINESS RISKS TO JUSTIFY**
10 **A ROE WITHIN HIS RANGE?**

11 **A** Mr. Hevert believes that the Company is exposed to several additional risks that should
12 be accounted for: (1) ENO’s planned capital investment program; (2) the Company’s
13 credit profile, (3) ENO’s geographic risk (4) ENO’s lack of customer diversity, (5)
14 ENO’s small size, (6) the effect of flotation cost and (7) the implications of the new
15 federal tax law.⁵¹ Mr. Hevert believes that these additional risks should be considered
16 in determining the ROE for ENO.

⁵¹Hevert Direct Testimony at 38-66.

1 Q WHY DO YOU BELIEVE THAT ENO FACES RISKS THAT ARE
2 COMPARABLE TO THE RISKS FACED BY THE COMPANIES IN MR.
3 HEVERT'S AND YOUR PROXY GROUPS?

4 A The major business risks identified by Mr. Hevert are considered in the assigning of a
5 credit rating by the various credit rating agencies. As shown on my Schedule CCW-2,
6 the average S&P credit rating for my proxy group of BBB+ is identical to ENO's credit
7 rating from S&P. The relative risks discussed on pages 38-66 of Mr. Hevert's testimony
8 are already incorporated in the credit ratings of the proxy group companies. S&P and
9 other credit rating agencies go through great detail in assessing a utility's business risk
10 and financial risk in order to evaluate their assessment of its total investment risk. This
11 total investment risk assessment of ENO, in comparison to a proxy group, is fully
12 absorbed into the market's perception of ENO's risk, and therefore the proxy group fully
13 captures the investment risk of ENO.

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

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

21 To determine the assessment for a corporate issuer's business risk
22 profile, the criteria combine our assessments of industry risk, country
23 risk, and competitive position. Cash flow/leverage analysis determines

1 a company's financial risk profile assessment. The analysis then
2 combines the corporate issuer's business risk profile assessment and its
3 financial risk profile assessment to determine its anchor. In general, the
4 analysis weighs the business risk profile more heavily for investment-
5 grade anchors, while the financial risk profile carries more weight for
6 speculative-grade anchors.⁵²

7 **Q ISN'T IT TRUE THAT ENO HAS A BA1 RATING FROM MOODY'S, WHICH**
8 **IS LOWER THAN THE RATINGS ASSIGNED TO THE REST OF THE PROXY**
9 **COMPANIES?**

A Yes. ENO currently has a Ba1 rating from Moody's, which is three notches lower than
the average Moody's rating for the proxy group.

10 **Q WILL YOU PLEASE BRIEFLY DISCUSS HOW ENO'S CREDIT RATING**
11 **FROM MOODY'S GOT TO WHERE IT IS TODAY?**

12 A Yes. ENO's current Ba1 rating from Moody's, while technically one notch below
13 investment grade, is a substantial improvement from where its ratings were after
14 Hurricane Katrina ("Katrina") in 2005. After Katrina, Moody's downgraded ENO's
15 ratings to as low as Ca, or 9 notches below its current Ba1 rating. ENO and its
16 stakeholders, including ratepayers, have shared in the pain of restoring the financial
17 stability of the utility and as a result have seen a nine notch increase in its rating from
18 Moody's. In its November report on ENO, Moody's noted the credit positives
19 supporting its ratings such as "very strong financial metrics and the generally supportive

⁵²Standard & Poor's RatingsDirect: "Criteria/Corporates/General: Corporate Methodology,"
November 19, 2013.

1 regulatory treatment from the City Council of New Orleans”, a formula rate plan, higher
2 than average ROE levels, and single-issue cost recovery.⁵³

3 **Q PLEASE COMMENT BRIEFLY ON SOME OF THE OTHER RISKS FACING**
4 **THE COMPANY.**

5 A The Moody’s report mentions that a materially adverse regulatory decision, significant
6 storm damage and delayed cost recovery for repairs, or a sustained decline in financial
7 metrics, including cash flow to debt ratios below the mid-teens percent range are factors
8 that could potentially lead to a downgrade. Moody’s is projecting ENO’s cash flow to
9 debt ratio to be above 15% over the near future.⁵⁴

10 However, the Moody’s report specifically makes note of a potential threat to
11 ENO’s credit rating as a result of the Company’s conduct concerning paid speakers at
12 hearings supporting the New Orleans Power Station (“NOPS”). Moody’s noted that the
13 CNO concluded in October 2018 that such conduct did take place and is considering a
14 \$5 million fine. Moody’s states that the \$5 million fine would not be a material credit
15 negative, but they do see reputational risk that could be credit negative due to potential
16 deterioration in stakeholder relationships.⁵⁵

⁵³APC 2-4 Addendum 1, Moody’s Investors Service, “Credit Opinion: Entergy New Orleans, LLC.,
Update to credit analysis,” November 27, 2018.

⁵⁴*Id.*

⁵⁵*Id.*

1 **Q DO YOU HAVE ANY RECOMMENDATIONS CONCERNING ENO'S COST**
2 **OF CAPITAL AS A RESULT OF THIS CONDUCT?**

3 A Yes. Moody's sees the possibility of these actions posing a threat to the relationships
4 ENO has built with its stakeholders over time, potentially impacting its credit rating.
5 Should Moody's take negative action on ENO's rating, ENO would likely see an
6 increase in capital costs. Should this happen, under no circumstance should ratepayers
7 be held responsible for bearing any increase in the cost of capital as a result of potential
8 downgrades in ENO's ratings that stem from the NOPS situation.

9 **Q MR. HEVERT TAKES ENO'S CAPITAL PROGRAM INTO CONSIDERATION**
10 **IN ESTIMATING THE COMPANY'S COST OF EQUITY. ARE ENO'S**
11 **CAPITAL EXPENDITURE FORECASTS OUT OF LINE WITH THE UTILITY**
12 **INDUSTRY?**

13 A No. As shown on my Schedule CCW-1, page 6, currently the industry as a whole is
14 expected to require access to the external capital markets due to producing less cash
15 flow per share than capital spending per share. Importantly, this is expected to change
16 in the three-to-five year period. As can be seen on that exhibit, the industry is expected
17 to produce more internal cash relative to projected capital expenditures during the
18 2021-2023 time period. Hence, Mr. Hevert's assertion that the Company will need to
19 access the capital markets in the near term is not unique to ENO. Further, as noted
20 above, Entergy Corp.'s cash flow to capital spending ratio as shown on Schedule
21 CCW-1, page 9 is reasonably reflective of the industry over the last several years.

1 **Q DID MR. HEVERT MAKE ANY OTHER COMMENTS CONCERNING THE**
2 **RELATIONSHIP BETWEEN A UTILITY’S CAPITAL INVESTMENT AND**
3 **FINANCIAL STRESS TO THE UTILITY?**

4 A Yes. Mr. Hevert also outlined an analysis based on the DuPont formula, which breaks
5 down the earned ROE based on three components: (1) Profit Margin (net
6 income/revenues), (2) Asset Turnover (revenues/net plant), and (3) the Equity
7 Multiplier (net plant/equity). He states that higher levels of capital expenditures result
8 in utilities’ Asset Turnover ratios being diluted, at least in the near term, which causes
9 financial distress for utility companies.

10 **Q DOES MR. HEVERT’S APPLICATION OF THE DUPONT METHOD**
11 **ACCURATELY MEASURE FINANCIAL DISTRESS ON UTILITIES DUE TO**
12 **CAPITAL EXPENDITURE PROGRAMS?**

13 A No. Mr. Hevert concluded that this equity return procedure indicates that a utility’s
14 “Asset Turnover” ratio is a useful gauge of capital expenditure risk. I disagree. The
15 Asset Turnover ratio may be an appropriate measure for non-regulated companies
16 because it does gauge a delay in the revenue/earnings between companies making
17 capital investments, and those investments being placed in-service and actually
18 generating revenue and earnings. However, for utility companies, capital expenditures
19 generate earnings before they are placed in-service.

20 When utilities make capital investments, earnings are not depressed due to
21 capital expenditures because utilities accrue an allowance for funds used during
22 construction (“AFUDC”), which supports utilities’ earnings during major construction

1 programs. These accrued earnings from AFUDC are not included in the “revenues”
2 numerator of the Asset Turnover ratio. Hence, for regulated utilities, the DuPont ratio
3 generally, and the Asset Turnover ratio specifically, ignore the earnings produced by
4 the accrual of AFUDC profits for plant investment that is not yet placed in-service. As
5 such, the profitability and earned ROE for utility companies are understated by Mr.
6 Hevert’s application of the DuPont method.

7 **Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT’S**
8 **CONCLUSIONS IN REGARDS TO THE TAX CUT AND JOBS ACT (“TCJA”)?**

9 A Yes. As discussed above, even though the cash flows for some utilities will be impacted
10 by the TCJA, this impact is not significant enough to trigger a credit downgrade for a
11 utility with a stable outlook and solid financial metrics. Currently, Moody’s and S&P
12 have a “stable” outlook for ENO. In fact, Moody’s most recent report states that
13 “Despite the financial headwinds created by tax reform, ENOI will still maintain cash
14 flow to debt ratios around 15%, even with increasing debt to fund \$435 million in capital
15 spending [...]” The effect of TCJA on ENO’s financial metrics are relatively known
16 by these agencies, neither of which have taken a negative action on ENO’s ratings as a
17 result.

1 **Q DO YOU TAKE ISSUE WITH MR. HEVERT'S FLOTATION COST**
2 **ADJUSTMENT?**

3 A Yes, I do. Mr. Hevert estimated a 9 basis points flotation cost adjustment.⁵⁶ Mr. Hevert
4 does not include an explicit flotation cost adjustment but he considers it in determining
5 where the Company's ROE falls within the range of results.

6 This flotation cost adjustment is intended to recover the actual cost a utility
7 incurs by issuing additional stock to the public. However, Mr. Hevert develops his
8 flotation cost as the difference between the unadjusted DCF result and the DCF result
9 adjusted for flotation cost. His flotation cost calculation is based on his proxy group
10 companies.

11 **Q WHY IS THE FLOTATION COST ADJUSTMENT NOT REASONABLE?**

12 A The flotation cost adjustment is not based on the recovery of prudent and verifiable
13 actual flotation costs incurred by ENO. As shown on Exhibit RBH-12 of Mr. Hevert's
14 direct testimony, he derives a flotation cost adder based on other utility companies.
15 Because he does not show that his adjustment is based on ENO's actual and verifiable
16 flotation expenses, there are no means of verifying whether Mr. Hevert's proposal is
17 reasonable or appropriate. Stated differently, Mr. Hevert's flotation cost ROE adder is
18 not based on known and measurable ENO costs. Therefore, the Commission should
19 reject a flotation cost ROE adder for ENO.

⁵⁶Hevert Direct testimony at 58.

1 **Q DID MR. HEVERT ALSO OFFER AN ASSESSMENT OF CURRENT MARKET**
2 **CONDITIONS IN SUPPORT OF HIS RECOMMENDED ROE RANGE?**

3 A Yes. Mr. Hevert observes a few factors that he believes gauge the capital market
4 environment and investor sentiment, including the relationship between the Federal
5 Reserve's monetary policy, as well as an assessment of the yield curve.⁵⁷ He concludes
6 that these metrics indicate that the constant growth DCF results should be given less
7 weight than the risk premium models and that investors are betting on rising long-term
8 rates.⁵⁸

9 **Q DO YOU BELIEVE THAT MR. HEVERT'S USE OF THESE MARKET**
10 **SENTIMENTS SUPPORTS HIS FINDINGS THAT ENO'S MARKET COST OF**
11 **EQUITY IS CURRENTLY IN THE RANGE OF 10.25% TO 11.25%?**

12 A No. In many instances, Mr. Hevert's analysis simply ignores market sentiments
13 favorable toward utility companies and instead lumps utility investments in with general
14 corporate investments. A fair analysis of utility securities shows the market generally
15 regards utility securities as lower-risk investments and supports the finding that utilities'
16 cost of capital is very low in today's marketplace.

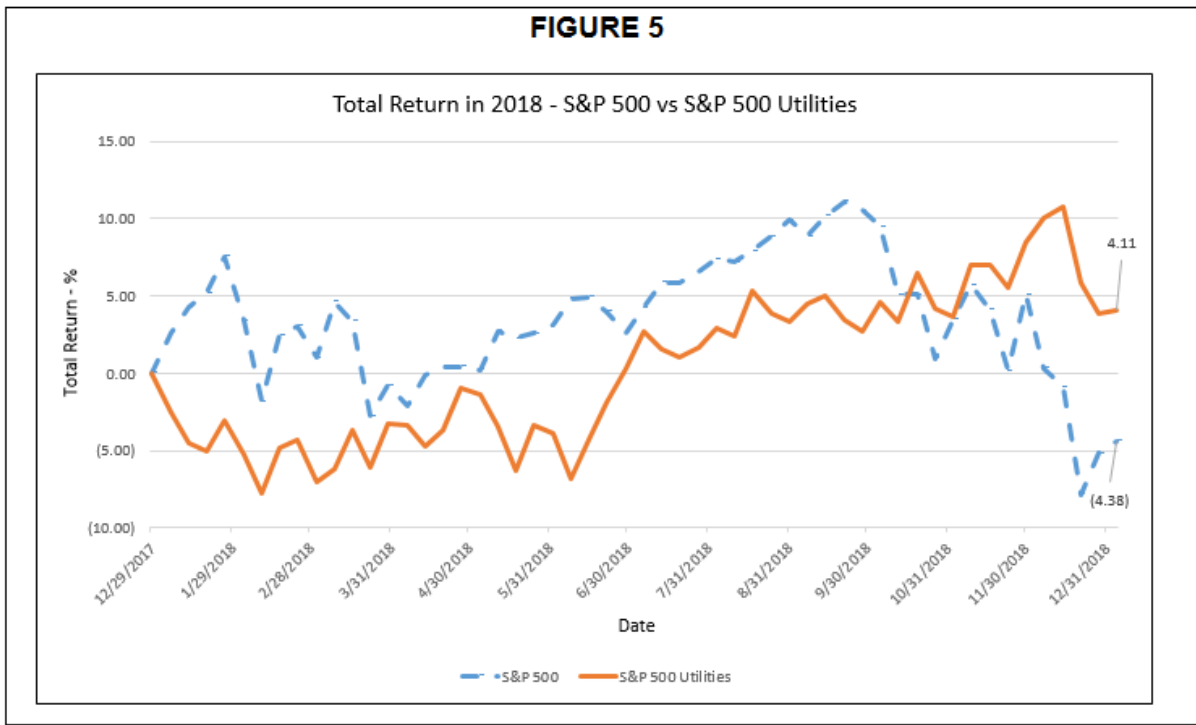
17 **Q WHAT IS THE MARKET SENTIMENT FOR UTILITY INVESTMENTS?**

18 A I briefly responded to Mr. Hevert's assertions above. Currently, the market sentiment
19 toward utility investments, rather than just general corporate investments, is that the

⁵⁷Hevert Direct Testimony at 66-77.

⁵⁸*Id.* at 77.

1 market is placing high value on utility securities, recognizing their low risk and stable
2 characteristics. As shown below in Figure 5, even in the face of what Mr. Hevert has
3 identified as negatives for the utilities industry such as TCJA and the Fed's increases in
4 short-term rates, the S&P 500 Utilities index outperformed the S&P 500 by 8.5% during
5 2018. This is a direct observation of the market's perception of risk



6 Investor sentiment for utility securities can be further illustrated by current
7 utility bond yield spreads as discussed at length previously. The current strong utility
8 bond valuation is an indication of the market's sentiment that utility bonds are lower
9 risk and are generally regarded as a safe haven by the investment industry.

10 Further, other measures of utility stock valuations also support the conclusion
11 that there is a robust market for utility stocks. As shown on my Schedule CCW-1,

1 financial valuation measures – *e.g.*, P/E ratio and market price to cash flow ratio – for
2 the proxy group show that utility stock valuation measures are robust.

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

8 **Q DO YOU HAVE ANY COMMENTS CONCERNING MR. HEVERT'S**
9 **CONTENTION THAT INTEREST RATES ARE GOING TO INCREASE?**

10 A Yes. Mr. Hevert develops his risk premium studies mainly relying on near-term and
11 long-term projected interest rates, which he believes are expected to increase.⁵⁹ Mr.
12 Hevert's primary reliance on forecasted Treasury bond yields is unreasonable because
13 he is not considering the highly likely outcome that current observable interest rates will
14 prevail during the period in which rates determined in this proceeding will be in effect.
15 This is important because, while current observable interest rates are actual market data
16 that provides a measure of the current cost of capital, the accuracy of forecasted interest
17 rates is problematic at best.

⁵⁹*Id.* at 73.

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

3 A Over the last several years, observable current interest rates have been a more accurate
4 predictor of future interest rates than the consensus projections of independent
5 economists. Schedule CCW-18 illustrates this point. On this exhibit, under Columns 1
6 and 2, I show the actual market yield for Treasury bonds at the time a projection is made,
7 and the corresponding projection for Treasury bond yields two years in the future,
8 respectively.

9 As shown in Columns 1 and 2, over the last several years, Treasury yields were
10 projected to increase relative to the actual Treasury yields at the time of the projection.
11 In Column 4, I show what the Treasury yield actually turned out to be two years after
12 the forecast. In Column 5, I show the actual yield change at the time of the projections
13 relative to the projected yield change.

14 As shown in this exhibit, economists have consistently been projecting that
15 interest rates will increase over the near term. However, as shown in Column 5, those
16 yield projections have turned out to be overstated in almost every case. Indeed, actual
17 Treasury yields have decreased or remained flat over the last several years rather than
18 increasing as the economists' projections indicated. As such, current observable interest
19 rates are just as likely to accurately predict future interest rates as are economists'
20 projections.

1 Q DO YOU HAVE ANY FURTHER COMMENTS IN REGARD TO MR.
2 HEVERT'S INTEREST RATE PROJECTIONS?

3 A Yes. First, it is simply not known how much, if any, long-term interest rates will
4 increase from current levels or whether they have already fully accounted for the
5 termination of the Federal Reserve's QE program and the increase in the Federal Funds
6 Rate. Nevertheless, I do agree that this Federal Reserve program introduced risk or
7 uncertainty in short-term interest rate markets. However, the increase in short-term
8 interest rates had no impact on longer-term yields. In fact as the EEI pointed out:
9 "Investors have feared rising rates for longer than many professional investors have
10 been in the business. But the 35-year bond bull market has defied all skeptics and yields
11 have fallen rather than risen."⁶⁰

12 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

13 A Yes, it does.

⁶⁰*EEI Q4 2017 Financial Update: "Stock Performance"* at 6.

Qualifications of Christopher C. Walters

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

2 A Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a Senior Consultant in the field of public utility regulation with the firm of
6 Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory consultants.

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND**
8 **PROFESSIONAL EMPLOYMENT EXPERIENCE.**

9 A I graduated from Southern Illinois University Edwardsville in 2008 where I received a
10 Bachelor of Science Degree in Business Economics and Finance. I graduated with a
11 Master of Business Administration Degree from Lindenwood University in 2011.

12 In January 2009, I accepted the position Financial Representative with American
13 General Finance and was promoted to Senior Assistant Manager. In this position I was
14 responsible for assisting in the management of daily operations of the branch, analyzing
15 and reporting on the performance of the branch to upper management, performing credit
16 analyses for consumers and small businesses, as well as assisting home buyers obtain
17 mortgage financing.

18 In January 2011, I accepted the position of Analyst with BAI. As an Analyst, I
19 performed detailed analysis, research, and general project support on regulatory and

1 competitive procurement projects. In July 2013, I was promoted to the position of
2 Associate Consultant. In January 2016, I was promoted to Consultant. In January 2018,
3 I was promoted to Senior Consultant. As a Senior Consultant, I perform detailed
4 technical analyses and research to support regulatory projects including expert
5 testimony, and briefing assistance covering various regulatory issues. At BAI, I have
6 been involved with several regulated projects for electric, natural gas and water and
7 wastewater utilities, as well as competitive procurement of electric power and gas
8 supply. My regulatory filing tasks have included measuring the cost of capital, capital
9 structure evaluations, assessing financial integrity, merger and acquisition related
10 issues, risk management related issues, depreciation rate studies, other revenue
11 requirement issues and wholesale market and retail regulated power price forecasts.
12 Since 2011, I have been working with BAI witnesses on utility rate of return filings.
13 Specifically, I have assisted in analyzing rate of return studies, drafting discovery
14 requests and analyzing responses, drafting testimony and exhibits and assisting with the
15 review of the briefs in more than 30 states, two Canadian provinces, and the Federal
16 Energy Regulatory Commission (“FERC”).

17 BAI was formed in April 1995. BAI and its predecessor firm have participated
18 in more than 700 regulatory proceedings in 40 states and Canada.

19 BAI provides consulting services in the economic, technical, accounting, and
20 financial aspects of public utility rates and in the acquisition of utility and energy
21 services through RFPs and negotiations, in both regulated and unregulated markets. Our
22 clients include large industrial and institutional customers, some utilities and, on

1 occasion, state regulatory agencies. We also prepare special studies and reports,
2 forecasts, surveys and siting studies, and present seminars on utility-related issues.

3 In general, we are engaged in energy and regulatory consulting, economic
4 analysis and contract negotiation. In addition to our main office in St. Louis, the firm
5 also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

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

7 A Yes. I have sponsored testimony before state regulatory commissions including:
8 Arkansas, Delaware, Florida, Illinois, Kansas, Kentucky, Louisiana, Michigan,
9 Minnesota, Ohio, Oklahoma, and Utah. I have also filed an affidavit before the FERC.

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

12 A I earned the Chartered Financial Analyst (“CFA”) designation from the CFA Institute.
13 The CFA charter was awarded after successfully completing three examinations which
14 covered the subject areas of financial accounting and reporting analysis, corporate
15 finance, economics, fixed income and equity valuation, derivatives, alternative
16 investments, risk management, and professional and ethical conduct. I am a member of
17 the CFA Institute and the CFA Society of St. Louis.

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

Line	Company	Price to Earnings (P/E) Ratio ¹																	
		17-Year																	
		Average (1)	2018 ² (2)	2017 (3)	2016 (4)	2015 (5)	2014 (6)	2013 (7)	2012 (8)	2011 (9)	2010 (10)	2009 (11)	2008 (12)	2007 (13)	2006 (14)	2005 (15)	2004 (16)	2003 (17)	2002 (18)
1	ALLETE	17.78	23.20	23.05	18.63	15.06	17.23	18.59	15.88	14.66	15.98	16.08	13.95	14.78	16.55	17.91	25.21	N/A	N/A
2	Alliant Energy	16.10	21.10	20.60	22.30	18.07	16.80	15.28	14.50	14.45	12.47	13.86	13.43	15.08	16.82	12.59	14.00	12.69	19.93
3	Ameren Corp.	15.85	22.20	20.60	18.29	17.55	16.71	16.52	13.35	11.93	9.66	9.26	14.21	17.45	19.39	16.72	16.28	13.51	15.78
4	American Electric Power	14.24	20.60	19.33	15.16	15.77	15.88	14.49	13.77	11.92	13.42	10.03	13.06	16.27	12.91	13.70	12.42	10.66	12.68
5	Avangrid, Inc.	27.15	19.90	27.27	20.49	40.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	18.43	25.90	23.37	18.80	17.60	17.28	14.64	19.30	14.08	12.74	11.42	14.97	30.88	15.39	19.45	24.43	13.84	19.27
7	Black Hills	17.70	18.10	19.48	22.29	16.14	19.03	18.24	17.13	31.13	18.10	9.93	N/A	15.02	15.77	17.27	17.13	15.95	12.52
8	CenterPoint Energy	15.10	23.00	17.91	21.91	18.10	16.96	18.75	14.85	14.58	13.78	11.81	11.27	15.00	10.27	19.06	17.84	6.05	5.59
9	CMS Energy Corp.	17.11	22.90	21.32	20.94	18.29	17.30	16.32	15.07	13.62	12.46	13.56	10.87	26.84	22.18	12.60	12.39	N/A	N/A
10	Consol. Edison	15.39	18.00	19.77	18.80	15.59	15.90	14.72	15.39	15.08	13.30	12.55	12.29	13.78	15.49	15.13	18.21	14.30	13.28
11	Dominion Resources	17.96	16.60	22.17	21.33	22.14	22.97	19.25	18.91	17.27	14.35	12.74	13.78	20.63	15.98	24.89	15.07	15.24	12.05
12	DTE Energy	15.56	19.70	18.59	18.97	18.11	14.91	17.92	14.89	13.51	12.27	10.41	14.81	18.27	17.43	13.80	16.04	13.69	11.28
13	Duke Energy	16.92	17.70	19.93	21.25	18.22	17.91	17.45	17.46	13.76	12.69	13.32	17.28	16.13	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	13.97	14.80	17.23	17.92	14.77	13.05	12.70	9.71	11.81	10.32	9.72	12.36	16.03	12.99	11.74	37.59	6.97	7.78
15	El Paso Electric	17.42	22.50	21.78	18.66	18.33	16.38	15.88	14.47	12.60	10.72	10.79	11.89	15.26	16.92	26.72	22.03	18.26	22.99
16	Entergy Corp.	13.76	18.80	15.01	10.92	12.53	12.89	13.21	11.22	9.06	11.57	11.98	16.56	19.30	14.28	16.28	15.09	13.77	11.53
17	Eversource Energy	17.65	19.00	19.47	18.69	18.11	17.92	16.94	19.86	15.35	13.42	11.96	13.66	18.75	27.07	19.76	20.77	13.35	16.07
18	Evergy, Inc.	21.70	21.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	14.42	14.80	13.41	18.68	12.58	16.02	13.43	19.08	11.30	10.97	11.49	17.97	18.22	16.53	15.37	12.99	11.77	10.46
20	FirstEnergy Corp.	17.31	17.80	11.41	15.91	17.02	39.79	13.06	21.10	22.39	11.75	13.02	15.64	15.59	14.23	16.07	14.13	22.47	12.95
21	Fortis Inc.	19.02	16.80	16.81	21.60	18.00	24.29	19.97	20.12	18.79	18.22	16.36	17.48	21.14	17.68	N/A	N/A	N/A	N/A
22	Great Plains Energy	15.52	N/A	NMF	17.98	19.37	16.47	14.19	15.53	16.11	12.10	16.03	20.55	16.35	18.30	13.96	12.59	12.23	11.09
23	Hawaiian Elec.	18.02	18.60	20.69	13.56	20.40	15.88	16.21	15.81	17.09	18.59	19.79	23.16	21.57	20.33	18.27	19.18	13.76	13.47
24	IDACORP, Inc.	16.33	22.90	20.60	19.06	16.22	14.67	13.45	12.41	11.54	11.83	10.20	13.93	18.19	15.07	16.70	15.49	26.51	18.88
25	MGE Energy	18.62	25.60	29.36	24.90	20.28	17.19	17.01	17.23	15.82	14.98	15.14	14.22	15.01	15.88	22.40	17.98	17.55	15.96
26	NextEra Energy, Inc.	16.15	21.20	21.65	20.71	16.89	17.25	16.57	14.43	11.54	10.83	13.42	14.48	18.90	13.65	17.88	13.65	17.88	13.60
27	NorthWestern Corp	16.79	17.10	17.85	17.19	18.36	16.24	16.86	15.72	12.62	12.90	11.54	13.87	21.74	25.95	17.09	N/A	N/A	N/A
28	OGE Energy	15.17	19.70	18.32	17.68	17.69	18.27	17.69	15.16	14.37	13.31	10.83	12.41	13.75	13.68	14.95	14.13	11.84	14.12
29	Otter Tail Corp.	24.14	21.60	22.06	20.19	18.20	18.84	21.12	21.75	47.48	55.10	31.16	30.06	19.02	17.35	15.40	17.34	17.77	16.01
30	PG&E Corp.	16.79	NMF	18.28	21.13	26.40	15.00	23.67	20.70	15.46	15.80	13.01	12.08	16.85	14.84	15.37	13.81	9.50	N/A
31	Pinnacle West Capital	15.73	18.90	19.28	18.74	16.04	15.89	15.27	14.35	14.60	12.57	13.74	16.07	14.93	13.69	19.24	15.80	13.96	14.43
32	PNM Resources	18.02	21.40	20.43	19.83	16.85	18.68	16.13	14.97	14.53	14.05	18.09	N/A	35.65	15.57	17.38	15.02	14.73	15.08
33	Portland General	16.36	19.40	20.03	19.06	17.71	15.32	16.88	13.98	12.37	12.00	14.40	16.30	11.94	23.35	N/A	N/A	N/A	N/A
34	PPL Corp.	14.22	13.20	17.65	12.83	13.92	14.08	12.84	10.88	10.52	11.93	25.69	17.64	17.26	14.10	15.12	12.51	10.59	11.06
35	Public Serv. Enterprise	13.57	17.30	16.31	15.35	12.41	12.61	13.50	12.79	10.40	10.37	10.04	13.65	16.54	17.81	16.74	14.26	10.58	10.00
36	SCANA Corp.	15.01	31.80	14.46	16.80	14.67	13.68	14.43	14.80	13.67	12.93	11.63	12.67	14.96	15.42	14.44	13.57	13.05	12.17
37	Sempra Energy	14.94	19.70	24.33	24.37	19.73	21.87	19.68	14.89	11.77	12.60	10.09	11.80	14.01	11.50	11.79	8.65	8.96	8.19
38	Southern Co.	15.69	15.80	15.48	17.76	15.85	16.04	16.19	16.97	15.85	14.90	13.52	16.13	15.95	16.19	15.92	14.68	14.83	14.63
39	Vectren Corp.	17.72	28.50	23.54	19.18	17.92	19.98	20.66	15.02	15.83	15.10	12.89	16.79	15.33	18.92	15.11	17.57	14.80	14.16
40	WEC Energy Group	16.28	21.90	20.01	19.95	21.33	17.71	16.50	15.76	14.25	14.01	13.35	14.77	16.47	15.97	14.46	17.51	12.43	10.46
41	Westar Energy	15.58	N/A	23.40	21.59	18.45	15.36	14.04	13.43	14.78	12.96	14.95	16.96	14.10	12.18	14.79	17.44	10.78	14.02
42	Xcel Energy Inc.	16.92	19.50	20.20	18.48	16.54	15.44	15.04	14.82	14.24	14.13	12.66	13.69	16.65	14.80	15.36	13.65	11.62	40.80
43	Average	16.48	20.24	19.81	18.97	18.00	17.39	16.38	15.69	15.30	14.28	13.56	15.18	17.74	16.47	16.52	16.57	13.70	14.31
44	Median	15.81	19.70	19.97	18.80	17.71	16.54	16.27	15.04	14.31	12.91	12.82	14.21	16.41	15.88	15.92	15.29	13.60	13.47

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.

² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

		Market Price to Cash Flow (MP/CF) Ratio ¹																	
Line	Company	17-Year																	
		Average (1)	2018 ^{2/a} (2)	2017 (3)	2016 (4)	2015 (5)	2014 (6)	2013 (7)	2012 (8)	2011 (9)	2010 (10)	2009 (11)	2008 (12)	2007 (13)	2006 (14)	2005 (15)	2004 (16)	2003 (17)	2002 (18)
1	ALLETE	9.46	10.91	10.95	8.26	7.49	8.80	9.15	8.18	7.91	8.04	8.51	9.29	10.30	11.06	11.54	11.46	N/A	N/A
2	Alliant Energy	7.64	9.70	13.21	10.67	8.86	8.40	7.52	7.50	7.21	6.59	6.23	7.49	7.92	8.00	5.09	5.52	4.76	5.20
3	Ameren Corp.	6.90	7.97	8.38	7.44	6.87	6.95	6.61	5.48	5.02	4.23	4.25	6.35	7.69	8.57	8.57	8.24	6.74	7.96
4	American Electric Power	6.26	8.26	8.81	7.57	7.09	7.00	6.57	5.93	5.46	5.54	4.71	5.71	6.84	5.54	6.07	5.50	4.69	5.19
5	Avangrid, Inc.	9.95	9.78	10.14	8.56	11.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	6.70	10.04	9.35	7.63	6.76	7.30	6.21	6.88	6.40	5.80	4.06	5.12	7.58	5.30	6.58	7.58	5.36	5.90
7	Black Hills	7.60	8.55	9.20	9.33	8.06	8.81	8.03	6.04	7.85	6.16	4.25	11.26	7.62	6.92	7.57	6.69	6.89	5.92
8	CenterPoint Energy	4.99	7.49	6.97	5.96	5.75	6.25	6.56	5.15	5.39	4.70	4.05	4.29	5.17	3.94	4.70	4.26	2.08	2.16
9	CMS Energy Corp.	5.62	8.30	8.75	8.50	7.53	7.13	6.68	6.03	5.41	4.48	3.64	3.45	5.57	4.40	4.04	3.20	2.88	NMF
10	Consol. Edison	8.21	9.02	9.64	9.39	7.96	7.89	7.77	8.31	8.15	7.39	6.72	6.89	8.31	8.65	8.59	9.31	7.90	7.64
11	Dominion Resources	9.34	9.88	11.35	11.59	11.84	12.27	10.88	9.92	9.45	8.12	6.98	8.27	8.65	7.81	10.09	7.68	7.51	6.53
12	DTE Energy	6.20	8.48	9.05	8.64	8.52	6.42	6.65	5.91	5.18	4.69	3.59	4.90	5.73	5.21	5.54	6.00	5.62	5.20
13	Duke Energy	7.57	7.31	8.40	8.57	7.95	8.12	8.11	9.53	6.56	6.01	5.96	7.13	7.16	N/A	N/A	N/A	N/A	N/A
14	Edison Int'l	5.31	5.72	7.05	6.77	5.92	5.68	5.46	4.59	4.22	4.11	3.95	5.63	7.01	5.87	5.61	6.84	2.82	2.96
15	El Paso Electric	5.89	8.72	8.54	7.46	6.47	6.33	6.19	5.78	5.16	4.31	3.98	4.95	6.44	6.25	6.67	4.65	3.90	4.39
16	Entergy Corp.	5.71	4.98	4.66	4.01	4.11	4.21	4.03	4.23	3.90	4.66	5.68	7.96	9.21	7.16	8.76	7.12	6.84	5.57
17	Eversource Energy	6.64	8.95	10.36	10.14	10.12	10.14	8.08	9.30	6.99	4.97	4.61	4.12	6.18	6.02	3.55	3.78	2.85	2.75
18	Evergy, Inc.	11.91	11.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	6.11	4.56	4.45	4.80	4.70	5.09	4.61	5.54	5.86	5.10	5.98	9.65	9.89	8.62	7.97	6.29	5.71	4.97
20	FirstEnergy Corp.	6.35	8.76	4.76	5.12	5.38	7.43	6.15	7.42	7.33	4.49	4.91	7.58	7.89	7.53	6.04	5.15	6.90	5.10
21	Fortis Inc.	8.18	7.95	8.23	10.46	7.29	9.25	7.93	8.09	8.38	7.40	6.76	7.58	9.18	7.89	N/A	N/A	N/A	N/A
22	Great Plains Energy	6.89	N/A	14.62	8.63	6.66	6.45	5.73	6.09	5.74	4.49	5.06	7.71	7.13	7.68	6.70	6.52	5.92	5.14
23	Hawaiian Elec.	7.96	8.51	9.21	7.44	9.25	7.64	8.15	8.05	7.73	7.81	6.95	9.10	7.95	8.47	8.29	8.44	6.12	6.20
24	IDACORP, Inc.	8.11	11.63	11.56	10.95	9.37	8.59	7.78	7.05	6.64	6.52	5.31	7.10	8.23	7.73	7.55	7.15	7.27	7.53
25	MGE Energy	11.10	14.90	17.33	15.66	12.53	11.42	11.20	10.77	9.48	9.05	8.40	8.42	9.23	9.30	11.73	11.04	10.20	8.09
26	NextEra Energy, Inc.	7.54	10.73	11.62	9.23	7.93	7.98	7.60	7.58	5.98	5.33	6.09	7.34	9.02	6.51	6.71	6.71	5.97	5.77
27	NorthWestern Corp	7.57	8.01	8.82	8.65	8.99	9.01	7.61	6.85	5.89	5.79	5.05	5.57	8.45	9.39	7.31	8.13	N/A	N/A
28	OGE Energy	7.76	9.47	10.52	9.03	9.25	10.65	9.93	7.35	7.48	6.61	5.37	6.43	7.58	7.50	7.04	6.73	5.62	5.39
29	Otter Tail Corp.	9.19	10.70	11.09	9.38	9.04	9.45	9.58	8.43	9.04	8.07	8.01	11.65	9.53	8.66	8.18	9.01	8.13	8.33
30	PG&E Corp.	6.28	6.79	7.09	7.26	7.24	5.65	6.84	5.86	5.32	5.42	4.71	4.61	5.84	5.28	5.07	5.13	4.05	14.69
31	Pinnacle West Capital	6.11	7.95	8.73	7.89	6.91	7.03	6.85	6.34	5.80	5.65	3.84	4.19	4.76	4.48	7.48	5.88	4.80	5.21
32	PNM Resources	6.69	6.98	7.40	7.64	6.95	7.48	6.47	5.80	4.94	4.58	4.53	7.10	10.67	7.50	7.62	6.84	5.55	5.72
33	Portland General	5.70	6.66	7.45	7.12	6.73	5.49	6.06	5.08	4.86	4.13	4.63	4.81	5.34	5.74	N/A	N/A	N/A	N/A
34	PPL Corp.	7.45	7.04	10.11	8.37	8.73	7.32	6.59	5.87	5.98	7.46	8.82	9.17	8.90	7.58	7.57	6.49	5.41	5.30
35	Public Serv. Enterprise	7.41	9.03	8.67	8.56	6.66	6.48	6.40	6.40	6.03	6.04	6.20	8.46	9.83	8.41	8.59	7.17	6.79	6.24
36	SCANA Corp.	7.15	8.14	8.26	9.59	8.33	7.50	7.49	7.40	6.75	6.52	5.88	6.38	7.15	7.03	5.40	6.86	6.59	6.36
37	Sempra Energy	7.76	10.40	10.65	10.88	9.99	10.77	9.37	7.26	6.13	6.53	6.07	7.07	8.61	7.22	6.96	5.16	4.85	4.00
38	Southern Co.	8.14	7.17	7.49	8.83	8.23	8.42	8.30	8.75	8.22	7.79	7.08	8.18	8.62	8.47	8.41	8.28	8.28	7.83
39	Vectren Corp.	7.30	10.92	10.32	8.60	7.82	7.57	6.82	5.79	5.81	5.58	5.24	6.90	6.53	7.37	7.06	7.63	7.27	6.92
40	WEC Energy Group	8.41	10.97	11.04	10.95	12.90	10.27	9.58	9.24	8.43	8.15	6.87	7.57	7.84	7.27	6.40	6.27	4.91	4.27
41	Westar Energy	6.91	N/A	10.87	10.86	9.05	7.93	7.23	6.71	6.67	5.51	5.32	7.09	6.88	5.81	7.00	6.54	4.24	2.94
42	Xcel Energy Inc.	6.46	7.79	8.50	8.10	7.62	7.31	7.00	6.85	6.47	6.28	5.43	5.71	6.51	5.54	5.62	5.31	4.27	5.46
43	Average	7.20	8.78	9.36	8.65	8.05	7.85	7.39	6.98	6.53	6.00	5.59	6.95	7.72	7.12	7.13	6.77	5.70	5.85
44	Median	7.07	8.53	9.05	8.57	7.93	7.54	7.12	6.85	6.27	5.80	5.35	7.09	7.76	7.37	7.04	6.71	5.62	5.52

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.

² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

^a Based on the average of the high and low price for 2018 and the projected 2018 Cash Flow per share, published in The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

		Market Price to Book Value (MP/BV) Ratio ¹														
Line	Company	14-Year														
		Average (1)	2018 ^{2b} (2)	2017 (3)	2016 (4)	2015 (5)	2014 (6)	2013 (7)	2012 (8)	2011 (9)	2010 (10)	2009 (11)	2008 (12)	2007 (13)	2006 (14)	2005 (15)
1	ALLETE	1.59	1.79	1.78	1.53	1.37	1.42	1.51	1.34	1.35	1.28	1.15	1.55	1.89	2.09	2.22
2	Alliant Energy	1.66	2.06	2.38	2.17	1.86	1.86	1.70	1.57	1.46	1.31	1.04	1.33	1.67	1.52	1.33
3	Ameren Corp.	1.40	1.96	1.93	1.67	1.46	1.45	1.29	1.18	0.90	0.83	0.78	1.25	1.60	1.62	1.68
4	American Electric Power	1.52	1.84	1.88	1.81	1.55	1.54	1.40	1.31	1.23	1.08	1.48	1.85	1.56	1.57	
5	Avangrid, Inc.	0.87	1.01	0.93	0.83	0.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.31	1.84	1.73	1.57	1.36	1.33	1.25	1.21	1.19	1.07	0.94	1.11	1.29	1.30	1.13
7	Black Hills	1.48	1.60	2.06	1.94	1.59	1.79	1.62	1.21	1.14	1.07	0.83	1.22	1.57	1.47	1.63
8	CenterPoint Energy	2.39	2.09	2.59	2.73	2.43	2.27	2.30	1.99	1.87	1.96	1.77	2.49	3.13	2.75	3.06
9	CMS Energy Corp.	1.94	2.77	2.93	2.72	2.43	2.26	2.09	1.91	1.66	1.48	1.10	1.23	1.82	1.42	1.32
10	Consol. Edison	1.40	1.51	1.63	1.58	1.42	1.34	1.38	1.47	1.38	1.22	1.08	1.17	1.47	1.47	1.52
11	Dominion Resources	2.65	2.46	2.94	3.15	3.34	3.55	2.97	2.84	2.37	2.01	1.80	2.42	2.69	2.07	2.50
12	DTE Energy	1.45	1.92	2.01	1.82	1.65	1.62	1.51	1.35	1.20	1.16	0.89	1.10	1.35	1.29	1.39
13	Duke Energy	1.18	1.30	1.41	1.35	1.29	1.28	1.19	1.12	1.11	1.00	0.91	1.06	1.15	N/A	N/A
14	Edison Int'l	1.65	1.74	2.17	1.92	1.76	1.68	1.57	1.53	1.24	1.07	1.04	1.56	2.05	1.80	1.93
15	El Paso Electric	1.56	1.92	1.87	1.68	1.48	1.52	1.49	1.59	1.64	1.17	0.98	1.33	1.69	1.71	1.76
16	Entergy Corp.	1.72	1.74	1.76	1.67	1.40	1.33	1.21	1.31	1.35	1.62	1.66	2.44	2.65	1.89	2.01
17	Eversource Energy	1.41	1.63	1.73	1.64	1.53	1.47	1.38	1.28	1.50	1.31	1.12	1.31	1.60	1.22	1.05
18	Eergy, Inc.	1.60	1.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	2.28	1.26	1.20	1.20	1.14	1.28	1.17	1.46	1.95	2.07	2.57	4.39	4.79	3.89	3.60
20	FirstEnergy Corp.	1.88	2.92	3.53	2.37	1.16	1.15	1.28	1.44	1.33	1.36	1.54	2.52	2.23	1.92	1.64
21	Fortis Inc.	1.48	1.29	1.41	1.26	1.33	1.35	1.45	1.59	1.59	1.56	1.33	1.48	1.63	1.96	N/A
22	Great Plains Energy	1.21	N/A	1.33	1.17	1.12	1.11	1.02	0.96	0.93	0.87	0.80	1.11	1.66	1.77	1.86
23	Hawaiian Elec.	1.61	1.71	1.76	1.63	1.71	1.49	1.54	1.62	1.54	1.44	1.16	1.61	1.57	2.01	1.78
24	IDACORP, Inc.	1.38	1.95	1.94	1.76	1.54	1.45	1.33	1.19	1.17	1.13	0.92	1.09	1.26	1.37	1.22
25	MGE Energy	2.03	2.53	2.88	2.60	2.10	2.10	2.06	1.92	1.75	1.65	1.54	1.62	1.75	1.83	2.09
26	NextEra Energy, Inc.	1.98	2.34	2.35	2.30	2.09	2.15	1.93	1.74	1.55	1.49	1.70	2.06	2.34	1.80	1.93
27	NorthWestern Corp	1.45	1.47	1.64	1.68	1.60	1.54	1.56	1.42	1.35	1.22	1.07	1.15	1.48	1.65	1.42
28	OGE Energy	1.83	1.75	1.82	1.73	1.79	2.22	2.24	1.94	1.90	1.70	1.37	1.52	1.98	1.91	1.80
29	Otter Tail Corp.	1.76	2.37	2.33	1.90	1.78	1.90	1.96	1.58	1.35	1.19	1.18	1.71	1.93	1.76	1.74
30	PG&E Corp.	1.56	1.14	1.71	1.69	1.57	1.39	1.38	1.41	1.46	1.56	1.41	1.50	1.94	1.83	1.84
31	Pinnacle West Capital	1.38	1.72	1.91	1.72	1.52	1.44	1.47	1.39	1.25	1.14	0.95	1.00	1.26	1.26	1.25
32	PNM Resources	1.16	1.70	1.84	1.56	1.33	1.21	1.09	0.98	0.80	0.69	0.56	0.66	1.23	1.21	1.45
33	Portland General	1.28	1.55	1.69	1.56	1.42	1.37	1.28	1.14	1.09	0.94	0.92	1.05	1.32	1.36	N/A
34	PPL Corp.	2.14	1.72	2.40	2.46	2.24	1.64	1.55	1.58	1.47	1.61	2.10	3.19	3.05	2.43	2.50
35	Public Serv. Enterprise	1.91	1.80	1.68	1.67	1.58	1.57	1.44	1.46	1.59	1.67	1.78	2.58	2.99	2.46	2.45
36	SCANA Corp.	1.48	1.11	1.65	1.74	1.47	1.48	1.48	1.48	1.36	1.33	1.20	1.45	1.62	1.64	1.72
37	Sempra Energy	1.78	2.11	2.24	2.00	2.17	2.20	1.84	1.53	1.28	1.35	1.32	1.60	1.87	1.70	1.73
38	Southern Co.	2.05	1.89	2.07	2.01	1.99	2.02	2.04	2.15	1.99	1.83	1.73	2.12	2.24	2.23	2.35
39	Vectren Corp.	1.90	2.82	2.75	2.29	2.11	2.08	1.82	1.57	1.53	1.41	1.34	1.64	1.74	1.77	1.82
40	WEC Energy Group	1.88	2.14	2.10	2.09	1.82	2.34	2.21	2.05	1.81	1.65	1.40	1.57	1.77	1.71	1.62
41	Westar Energy	1.37	N/A	1.94	1.95	1.49	1.44	1.33	1.26	1.20	1.10	0.93	1.10	1.36	1.30	1.41
42	Xcel Energy Inc.	1.54	1.91	2.06	1.88	1.66	1.55	1.50	1.51	1.41	1.32	1.19	1.30	1.53	1.40	1.38
43	Average	1.66	1.85	2.00	1.85	1.67	1.68	1.60	1.51	1.43	1.35	1.25	1.63	1.90	1.78	1.80
44	Median	1.57	1.79	1.91	1.74	1.57	1.53	1.49	1.47	1.37	1.31	1.15	1.48	1.71	1.71	1.73

Sources:

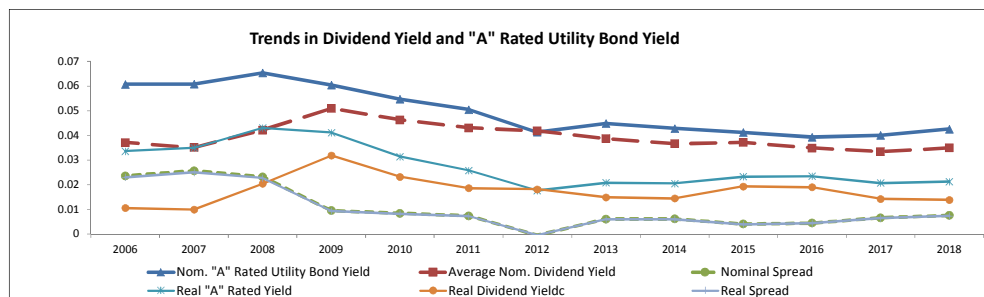
¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.

² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Electric Utilities
(Valuation Metrics)

Line	Company	13-Year													Dividend Yield ¹			
		Average	2018 ^{2a}	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
1	ALLETE	4.03%	3.00%	2.97%	3.56%	3.97%	3.92%	3.89%	4.49%	4.58%	5.03%	5.79%	4.37%	3.60%	3.16%			
2	Alliant Energy	3.82%	3.21%	3.07%	3.21%	3.60%	3.53%	3.74%	4.07%	4.28%	4.61%	5.73%	4.10%	3.13%	3.32%			
3	Ameren Corp.	4.63%	3.01%	3.12%	3.50%	3.96%	4.02%	4.61%	4.97%	5.28%	5.76%	5.98%	6.21%	4.88%	4.93%			
4	American Electric Power	4.15%	3.56%	3.42%	3.54%	3.80%	3.83%	4.23%	4.58%	4.96%	4.90%	5.50%	4.20%	3.40%	4.06%			
5	Avangrid, Inc.	3.85%	3.49%	3.79%	4.26%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
6	Avista Corp.	3.76%	2.97%	3.14%	3.39%	3.97%	3.99%	4.51%	4.55%	4.54%	4.76%	4.49%	3.39%	2.68%	2.52%			
7	Black Hills	3.84%	3.32%	2.75%	2.87%	3.55%	2.84%	3.19%	4.39%	4.64%	4.79%	6.17%	4.21%	3.40%	3.79%			
8	CenterPoint Energy	4.57%	4.12%	4.79%	4.70%	5.06%	3.94%	3.57%	4.04%	4.27%	5.29%	6.37%	4.98%	3.87%	4.39%			
9	CMS Energy Corp.	3.32%	3.05%	2.88%	2.90%	3.36%	3.59%	3.76%	4.16%	4.25%	3.98%	3.97%	2.69%	1.16%	N/A			
10	Consol. Edison	4.51%	3.67%	3.40%	3.62%	4.12%	4.38%	4.25%	4.07%	4.46%	5.16%	5.99%	5.67%	4.84%	5.04%			
11	Dominion Resources	3.98%	4.66%	3.88%	3.82%	3.66%	3.43%	3.78%	4.06%	4.13%	4.41%	5.20%	3.77%	3.32%	3.60%			
12	DTE Energy	4.24%	3.33%	3.15%	3.34%	3.53%	3.54%	3.84%	4.19%	4.68%	4.75%	6.29%	5.24%	4.36%	4.86%			
13	Duke Energy	4.79%	4.63%	4.15%	4.26%	4.34%	4.26%	4.45%	4.68%	5.21%	5.71%	6.25%	5.16%	4.44%	N/A			
14	Edison Int'l	3.02%	3.81%	2.87%	2.81%	2.83%	2.62%	2.85%	2.97%	3.37%	3.66%	3.95%	2.69%	2.21%	2.58%			
15	El Paso Electric	2.74%	2.52%	2.49%	2.75%	3.13%	2.97%	2.99%	2.97%	2.11%	N/A	N/A	N/A	N/A	N/A			
16	Entergy Corp.	4.13%	4.44%	4.49%	4.55%	4.59%	4.47%	5.07%	4.91%	4.85%	4.20%	3.97%	2.92%	2.39%	2.82%			
17	Eversource Energy	3.36%	3.42%	3.14%	3.22%	3.34%	3.40%	3.48%	3.52%	3.23%	3.64%	4.16%	3.25%	2.60%	3.27%			
18	Evergy, Inc.	3.11%	3.11%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
19	Exelon Corp.	3.92%	3.42%	3.51%	3.75%	3.88%	3.69%	4.69%	5.73%	4.96%	4.95%	4.26%	2.78%	2.48%	2.83%			
20	FirstEnergy Corp.	4.35%	4.22%	4.62%	4.31%	4.23%	4.26%	4.26%	4.90%	5.23%	5.76%	5.09%	3.21%	3.12%	3.40%			
21	Fortis Inc.	3.68%	4.04%	3.69%	3.80%	3.76%	3.88%	3.84%	3.64%	3.58%	3.80%	4.21%	3.76%	3.01%	2.79%			
22	Great Plains Energy	4.52%	N/A	3.58%	3.64%	3.76%	3.62%	3.84%	4.08%	4.15%	4.49%	5.03%	6.96%	5.49%	5.60%			
23	Hawaiian Elec.	4.75%	3.64%	3.65%	3.99%	4.05%	4.76%	4.72%	4.70%	5.04%	5.51%	6.89%	5.00%	5.18%	4.59%			
24	IDACORP, Inc.	3.27%	2.64%	2.58%	2.77%	3.06%	3.12%	3.21%	3.28%	3.10%	3.44%	4.46%	3.55%	3.55%	3.95%			
25	MGE Energy	3.25%	2.21%	1.95%	2.22%	2.78%	2.78%	2.91%	3.25%	3.63%	3.98%	4.36%	4.24%	4.14%	4.25%			
26	NextEra Energy, Inc.	3.22%	2.76%	2.79%	2.91%	3.01%	3.00%	3.30%	3.65%	3.96%	3.90%	3.55%	3.02%	2.65%	3.40%			
27	NorthWestern Corp	4.15%	3.92%	3.52%	3.43%	3.61%	3.30%	3.66%	4.17%	4.51%	4.93%	5.75%	5.38%	4.09%	3.65%			
28	OE Energy	3.62%	3.99%	3.61%	3.87%	3.51%	2.63%	2.48%	2.94%	3.06%	3.68%	4.96%	4.52%	3.77%	3.99%			
29	Otter Tail Corp.	4.27%	3.02%	3.12%	3.87%	4.33%	4.14%	4.11%	5.21%	5.57%	5.68%	5.38%	3.63%	3.46%	3.92%			
30	PG&E Corp.	3.70%	N/A	2.42%	3.22%	3.45%	3.96%	4.20%	4.25%	4.24%	4.08%	4.26%	4.01%	3.07%	3.22%			
31	Pinnacle West Capital	4.62%	3.60%	3.16%	3.46%	3.88%	4.09%	3.98%	5.32%	4.81%	5.43%	6.76%	6.17%	4.75%	4.67%			
32	PNM Resources	3.32%	2.89%	2.53%	2.69%	2.90%	2.79%	2.99%	2.96%	3.19%	4.09%	4.76%	4.85%	3.36%	3.21%			
33	Portland General	3.75%	3.30%	2.92%	3.06%	3.27%	3.34%	3.67%	4.11%	4.37%	5.20%	5.36%	4.28%	3.34%	2.54%			
34	PPL Corp.	4.38%	5.68%	4.24%	4.25%	4.55%	4.45%	4.81%	5.07%	5.10%	5.12%	4.51%	3.10%	2.69%	3.41%			
35	Public Serv. Enterprise	3.84%	3.50%	3.74%	3.78%	3.81%	3.92%	4.35%	4.55%	4.24%	4.30%	4.30%	3.26%	2.73%	3.47%			
36	SCANA Corp.	4.22%	2.36%	4.03%	3.29%	3.90%	4.05%	4.15%	4.25%	4.78%	4.93%	5.67%	4.92%	4.29%	4.21%			
37	Sempra Energy	2.94%	3.14%	2.92%	2.92%	2.71%	2.61%	3.03%	3.71%	3.65%	3.08%	3.23%	2.62%	2.08%	2.47%			
38	Southern Co.	4.72%	5.19%	4.63%	4.42%	4.78%	4.69%	4.61%	4.29%	4.63%	5.13%	5.52%	4.58%	4.39%	4.52%			
39	Vectren Corp.	4.26%	2.82%	2.79%	3.31%	3.60%	3.62%	4.15%	4.82%	5.06%	5.53%	5.85%	4.79%	4.53%	4.52%			
40	WEC Energy Group	3.06%	3.33%	3.31%	3.35%	3.49%	3.40%	3.49%	3.24%	3.35%	2.97%	3.16%	2.41%	2.14%	2.18%			
41	Westar Energy	4.37%	N/A	3.00%	2.90%	3.73%	3.88%	4.27%	4.57%	4.84%	5.32%	6.27%	5.22%	4.16%	4.28%			
42	Xcel Energy Inc.	4.01%	3.33%	3.10%	3.33%	3.69%	3.83%	3.86%	3.90%	4.20%	4.54%	5.14%	4.70%	4.05%	4.40%			
43	Average	3.94%	3.50%	3.34%	3.49%	3.71%	3.66%	3.87%	4.18%	4.30%	4.63%	5.09%	4.21%	3.51%	3.71%			
44	Median	3.92%	3.33%	3.15%	3.43%	3.71%	3.76%	3.85%	4.18%	4.42%	4.76%	5.14%	4.21%	3.40%	3.60%			
45	20-Yr Treasury Yields ³	3.48%	3.02%	2.65%	2.23%	2.55%	3.07%	3.12%	2.54%	3.62%	4.03%	4.11%	4.36%	4.91%	4.99%			
46	20-Yr TIPS ³	1.30%	0.92%	0.75%	0.66%	0.78%	0.87%	0.75%	0.21%	1.19%	1.73%	2.21%	2.19%	2.36%	2.31%			
47	Implied Inflation ³	2.15%	2.08%	1.89%	1.56%	1.75%	2.19%	2.35%	2.33%	2.40%	2.26%	1.85%	2.13%	2.49%	2.62%			
48	Real Dividend Yield⁴	1.75%	1.38%	1.42%	1.90%	1.93%	1.44%	1.49%	1.81%	1.86%	2.32%	3.18%	2.04%	0.99%	1.06%			
Utility																		
49	Nominal "A" Rated Yield⁴	4.95%	4.25%	4.00%	3.93%	4.12%	4.28%	4.48%	4.13%	5.04%	5.46%	6.04%	6.53%	6.07%	6.07%			
50	Real "A" Rated Yield	2.75%	2.12%	2.07%	2.34%	2.33%	2.04%	2.08%	1.76%	2.58%	3.13%	4.11%	4.31%	3.49%	3.36%			
Spreads (Utility Bond - Stock)																		
51	Nominal Spread⁵	1.02%	0.75%	0.66%	0.44%	0.40%	0.61%	0.61%	-0.05%	0.74%	0.84%	0.95%	2.32%	2.57%	2.36%			
52	Real Spread⁶	0.99%	0.74%	0.65%	0.44%	0.40%	0.60%	0.59%	-0.05%	0.72%	0.82%	0.93%	2.27%	2.50%	2.30%			
Spreads (Treasury Bond - Stock)																		
53	Nominal⁷	-0.46%	-0.47%	-0.69%	-1.26%	-1.17%	-0.59%	-0.75%	-1.64%	-0.68%	-0.60%	-0.98%	0.15%	1.40%	1.28%			
54	Real⁸	-0.45%	-0.46%	-0.68%	-1.24%	-1.15%	-0.58%	-0.73%	-1.60%	-0.67%	-0.58%	-0.97%	0.15%	1.37%	1.25%			



Sources:
¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.
² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.
³ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.
⁴ www.moody.com, Bond Yields and Key Indicators, through December 31, 2018.

Notes:
^a Based on the average of the high and low price for 2017 and the projected 2017 Dividends Declared per share, published in the Value Line Investment Survey, October 26, November 16, and December 14, 2018.
^b Line 47 = (1 + Line 45) / (1 + Line 46) - 1.
^c Line 48 = (1 + Line 43) / (1 + Line 47) - 1.
^d The spread being measured here is the nominal A-rated utility bond yield over the average nominal utility dividend yield; (Line 49 - Line 43).
^e The spread being measured here is the real A-rated utility bond yield over the average real utility dividend yield; Line 50 - Line 48).
^f The spread being measured here is the nominal 20-Year Treasury yield over the average nominal utility dividend yield; (Line 45 - Line 43).
^g The spread being measured here is the real 20-Year TIPS yield over the average real utility dividend yield; Line 48 - Line 45).

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

Line	Company	Dividend per Share ¹													
		13-Year													
		Average	2018 ²	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
1	ALLETE	1.87	2.24	2.14	2.08	2.02	1.96	1.90	1.84	1.78	1.76	1.72	1.64	1.45	
2	Alliant Energy	0.93	1.34	1.26	1.18	1.10	1.02	0.94	0.90	0.85	0.79	0.70	0.64	0.58	
3	Ameren Corp.	1.85	1.85	1.78	1.72	1.66	1.61	1.60	1.60	1.56	1.54	1.54	2.54	2.54	
4	American Electric Power	1.93	2.53	2.39	2.27	2.15	2.03	1.95	1.88	1.85	1.71	1.64	1.58	1.50	
5	Avangrid, Inc.	1.73	1.74	1.73	1.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
6	Avista Corp.	1.08	1.49	1.43	1.37	1.32	1.27	1.22	1.16	1.10	1.00	0.81	0.69	0.57	
7	Black Hills	1.54	1.90	1.81	1.68	1.62	1.56	1.52	1.48	1.46	1.44	1.42	1.40	1.37	
8	CenterPoint Energy	0.88	1.11	1.35	1.03	0.99	0.95	0.83	0.81	0.79	0.78	0.76	0.73	0.68	
9	CMS Energy Corp.	0.90	1.43	1.33	1.24	1.16	1.08	1.02	0.96	0.84	0.66	0.50	0.36	0.20	
10	Consol. Edison	2.49	2.86	2.76	2.68	2.60	2.52	2.46	2.42	2.40	2.38	2.36	2.34	2.30	
11	Dominion Resources	2.19	3.34	3.04	2.80	2.59	2.40	2.25	2.11	1.97	1.83	1.75	1.58	1.46	
12	DTE Energy	2.58	3.59	3.36	3.06	2.84	2.69	2.59	2.42	2.32	2.18	2.12	2.12	2.08	
13	Duke Energy	3.08	3.64	3.49	3.36	3.24	3.15	3.09	3.03	2.97	2.91	2.82	2.70	2.58	
14	Edison Int'l	1.53	2.45	2.23	1.98	1.73	1.48	1.37	1.31	1.29	1.27	1.25	1.23	1.18	
15	EI Paso Electric	1.11	1.42	1.32	1.23	1.17	1.11	1.05	0.97	0.66	N/A	N/A	N/A	N/A	
16	Entergy Corp.	3.16	3.58	3.50	3.42	3.34	3.32	3.32	3.32	3.32	3.24	3.00	3.00	2.58	
17	Eversource Energy	1.32	2.02	1.90	1.78	1.67	1.57	1.47	1.32	1.10	1.03	0.95	0.83	0.73	
18	Eversource Energy	1.74	1.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
18	Exelon Corp.	1.68	1.38	1.31	1.26	1.24	1.24	1.46	2.10	2.10	2.10	2.05	1.82	1.64	
19	FirstEnergy Corp.	1.83	1.44	1.44	1.44	1.44	1.44	1.65	2.20	2.20	2.20	2.20	2.20	1.85	
20	Fortis Inc.	1.23	1.75	1.65	1.55	1.43	1.30	1.25	1.21	1.17	1.12	1.04	1.00	0.82	
21	Great Plains Energy	1.11	N/A	1.10	1.06	1.00	0.94	0.88	0.86	0.84	0.83	0.83	1.66	1.66	
22	Hawaiian Elec.	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	
23	IDACORP, Inc.	1.58	2.40	2.24	2.08	1.92	1.76	1.57	1.37	1.20	1.20	1.20	1.20	1.20	
24	MGE Energy	1.07	1.32	1.26	1.21	1.16	1.11	1.07	1.04	1.01	0.99	0.97	0.96	0.93	
25	NextEra Energy, Inc.	2.61	4.44	3.93	3.48	3.08	2.90	2.64	2.40	2.20	2.00	1.89	1.78	1.64	
26	NorthWestern Corp	1.60	2.20	2.10	2.00	1.92	1.60	1.52	1.48	1.44	1.36	1.34	1.32	1.24	
27	OGE Energy	0.90	1.40	1.27	1.16	1.05	0.95	0.85	0.80	0.76	0.73	0.71	0.70	0.68	
28	Otter Tail Corp.	1.21	1.34	1.28	1.25	1.23	1.21	1.19	1.19	1.19	1.19	1.19	1.19	1.15	
29	PG&E Corp.	1.70	Nil	1.55	1.93	1.82	1.82	1.82	1.82	1.82	1.82	1.68	1.56	1.44	
30	Pinnacle West Capital	2.33	2.86	2.70	2.56	2.44	2.33	2.23	2.67	2.10	2.10	2.10	2.10	2.03	
31	PNM Resources	0.74	1.08	0.99	0.88	0.80	0.76	0.68	0.58	0.50	0.50	0.50	0.61	0.86	
32	Portland General	1.09	1.43	1.34	1.26	1.18	1.12	1.10	1.08	1.06	1.04	1.01	0.97	0.93	
33	PPL Corp.	1.42	1.64	1.58	1.52	1.50	1.49	1.47	1.44	1.40	1.40	1.38	1.34	1.22	
34	Public Serv. Enterprise	1.44	1.80	1.72	1.64	1.56	1.48	1.44	1.42	1.37	1.37	1.33	1.29	1.17	
35	SCANA Corp.	1.92	0.98	2.45	2.30	2.18	2.10	2.03	1.98	1.94	1.90	1.88	1.84	1.76	
36	Sempra Energy	2.24	3.58	3.29	3.02	2.80	2.64	2.52	2.40	1.92	1.56	1.56	1.37	1.24	
37	Southern Co.	1.95	2.38	2.30	2.22	2.15	2.08	2.01	1.94	1.87	1.80	1.73	1.66	1.54	
38	Vectren Corp.	1.45	1.83	1.71	1.62	1.54	1.46	1.43	1.41	1.39	1.37	1.35	1.31	1.27	
39	WEC Energy Group	1.25	2.21	2.08	1.98	1.74	1.56	1.45	1.20	1.04	0.80	0.68	0.54	0.46	
40	Westar Energy	1.30	N/A	1.60	1.52	1.44	1.40	1.36	1.32	1.28	1.24	1.20	1.16	1.08	
41	Xcel Energy Inc.	1.13	1.52	1.44	1.36	1.28	1.20	1.11	1.07	1.03	1.00	0.97	0.94	0.91	
42	Average	1.61	2.06	1.97	1.86	1.76	1.67	1.61	1.59	1.51	1.47	1.42	1.42	1.36	
43	Industry Average Growth	4.12%	4.72%	6.14%	5.60%	5.24%	3.58%	1.23%	5.69%	2.49%	3.36%	-0.08%	5.06%	6.45%	

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.

² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Notes:

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

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

Line	Company	Earnings per Share ¹													
		13-Year													
		Average (1)	2018 ² (2)	2017 (3)	2016 (4)	2015 (5)	2014 (6)	2013 (7)	2012 (8)	2011 (9)	2010 (10)	2009 (11)	2008 (12)	2007 (13)	2006 (14)
1	ALLETE	2.81	3.35	3.13	3.14	3.38	2.90	2.63	2.58	2.65	2.19	1.89	2.82	3.08	2.77
2	Alliant Energy	1.52	2.15	1.99	1.65	1.69	1.74	1.65	1.53	1.38	1.38	0.95	1.27	1.35	1.03
3	Ameren Corp.	2.66	3.35	2.77	2.68	2.38	2.40	2.10	2.41	2.47	2.77	2.78	2.88	2.98	2.66
4	American Electric Power	3.25	3.90	3.62	4.23	3.59	3.34	3.18	2.98	3.13	2.60	2.97	2.99	2.86	2.86
5	Avangrid, Inc.	1.68	2.20	1.67	1.98	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Avista Corp.	1.65	1.90	1.95	2.15	1.89	1.84	1.85	1.32	1.72	1.65	1.58	1.36	0.72	1.47
7	Black Hills	2.29	3.45	3.38	2.63	2.83	2.89	2.61	1.97	1.01	1.66	2.32	0.18	2.68	2.21
8	CenterPoint Energy	1.21	0.90	1.57	1.00	1.08	1.42	1.24	1.35	1.27	1.07	1.01	1.30	1.17	1.33
9	CMS Energy Corp.	1.50	2.35	2.17	1.98	1.89	1.74	1.66	1.53	1.45	1.33	0.93	1.23	0.64	0.64
10	Consol. Edison	3.67	4.20	4.10	3.94	4.05	3.62	3.93	3.86	3.57	3.47	3.14	3.36	3.48	2.95
11	Dominion Resources	2.97	3.75	3.53	3.44	3.20	3.05	3.09	2.75	2.76	2.89	2.64	3.04	2.13	2.40
12	DTE Energy	4.03	6.15	5.73	4.83	4.44	5.10	3.76	3.88	3.67	3.74	3.24	2.73	2.66	2.45
13	Duke Energy	3.78	4.40	4.22	3.71	4.10	4.13	3.98	3.71	4.14	4.02	3.39	3.03	3.60	2.73
14	Edison Int'l	3.82	4.35	4.51	3.94	4.15	4.33	3.78	4.55	3.23	3.35	3.24	3.68	3.32	3.28
15	El Paso Electric	2.06	2.55	2.42	2.39	2.03	2.27	2.20	2.26	2.48	2.07	1.50	1.73	1.63	1.27
16	Entergy Corp.	5.95	5.00	5.19	6.88	5.81	5.77	4.96	6.02	7.55	6.66	6.30	6.20	5.60	5.36
17	Eversource Energy	2.27	3.25	3.11	2.96	2.76	2.58	2.49	1.89	2.22	2.10	1.91	1.86	1.59	0.82
18	Evergy, Inc.	2.50	2.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	Exelon Corp.	3.04	2.50	2.78	1.80	2.54	2.10	2.31	1.92	3.75	3.87	4.29	4.10	4.03	3.50
20	FirstEnergy Corp.	2.68	1.15	2.73	2.10	2.00	0.85	2.97	2.13	1.88	3.25	3.32	4.38	4.22	3.82
21	Fortis Inc.	1.77	2.60	2.66	1.89	2.11	1.38	1.63	1.65	1.74	1.62	1.51	1.52	1.29	1.36
22	Great Plains Energy	1.33	N/A	-0.06	1.61	1.37	1.57	1.62	1.35	1.25	1.53	1.03	1.16	1.85	1.62
23	Hawaiian Elec.	1.49	1.90	1.64	2.29	1.50	1.64	1.62	1.67	1.44	1.21	0.91	1.07	1.11	1.33
24	IDACORP, Inc.	3.27	4.30	4.21	3.94	3.87	3.85	3.64	3.37	3.36	2.95	2.64	2.18	1.86	2.35
25	MGE Energy	1.89	2.45	2.20	2.18	2.06	2.32	2.16	1.86	1.76	1.67	1.47	1.59	1.51	1.37
26	NextEra Energy, Inc.	4.99	7.50	6.50	5.78	6.06	5.60	4.83	4.56	4.82	4.74	3.97	4.07	3.27	3.23
27	NorthWestern Corp	2.47	3.50	3.34	3.39	2.90	2.99	2.46	2.26	2.53	2.14	2.02	1.77	1.44	1.31
28	OGE Energy	1.65	2.10	1.92	1.69	1.69	1.98	1.94	1.79	1.73	1.50	1.33	1.25	1.32	1.23
29	Otter Tail Corp.	1.33	2.15	1.86	1.60	1.56	1.55	1.37	1.05	0.45	0.38	0.71	1.09	1.78	1.69
30	PG&E Corp.	2.56	0.60	3.50	2.83	2.00	3.06	1.83	2.07	2.78	2.82	3.03	3.22	2.78	2.76
31	Pinnacle West Capital	3.39	4.40	4.43	3.95	3.92	3.58	3.66	3.50	2.99	3.08	2.26	2.12	2.96	3.17
32	PNM Resources	1.26	1.90	1.92	1.65	1.64	1.45	1.41	1.31	1.08	0.87	0.58	0.11	0.76	1.72
33	Portland General	1.88	2.30	2.29	2.16	2.04	2.18	1.77	1.87	1.95	1.66	1.31	1.39	2.33	1.14
34	PPL Corp.	2.35	2.50	2.11	2.79	2.37	2.38	2.38	2.61	2.61	2.29	1.19	2.45	2.63	2.29
35	Public Serv. Enterprise	2.80	3.00	2.82	2.83	3.30	2.99	2.45	2.44	3.11	3.07	3.08	2.90	2.59	1.85
36	SCANA Corp.	3.18	1.80	4.20	4.16	3.81	3.79	3.39	3.15	2.97	2.98	2.85	2.95	2.74	2.59
37	Sempra Energy	4.55	5.65	4.63	4.24	5.23	4.63	4.22	4.35	4.47	4.02	4.78	4.43	4.26	4.23
38	Southern Co.	2.60	2.90	3.21	2.83	2.84	2.77	2.70	2.67	2.55	2.36	2.32	2.25	2.28	2.10
39	Vectren Corp.	1.97	2.45	2.60	2.55	2.39	2.02	1.66	1.94	1.73	1.64	1.79	1.63	1.83	1.44
40	WEC Energy Group	2.25	3.35	3.14	2.96	2.34	2.59	2.51	2.35	2.18	1.92	1.60	1.52	1.42	1.32
41	Westar Energy	1.96	N/A	2.27	2.43	2.09	2.35	2.27	2.15	1.79	1.80	1.28	1.31	1.84	1.88
42	Xcel Energy Inc.	1.83	2.45	2.30	2.21	2.10	2.03	1.91	1.85	1.72	1.56	1.49	1.46	1.35	1.35
43	Average	2.60	3.14	3.02	2.91	2.78	2.77	2.60	2.51	2.53	2.45	2.26	2.29	2.32	2.17
44	Industry Average Growth	3.17%	4.08%	3.68%	4.86%	0.28%	6.70%	3.34%	-0.86%	3.54%	8.08%	-1.11%	-1.47%	6.98%	

Sources:

¹ The Value Line Investment Survey Investment Analyzer Software, downloaded on June 21, 2018.

² The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Notes:

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

Entergy New Orleans, Inc.

Electric Utilities (Valuation Metrics)

Line	Company	Cash Flow / Capital Spending			
		2017 (1)	2018 (2)	2019 (3)	3 - 5 yr Projection (4)
1	ALLETE	1.61x	1.09x	1.04x	1.22x
2	Alliant Energy	0.49x	0.59x	0.66x	0.93x
3	Ameren Corp.	0.75x	0.79x	0.68x	0.93x
4	American Electric Power	0.67x	0.69x	0.67x	0.76x
5	Avangrid, Inc.	0.57x	0.66x	0.72x	0.87x
6	Avista Corp.	0.77x	0.82x	0.88x	1.04x
7	Black Hills	1.17x	0.84x	0.73x	1.17x
8	CenterPoint Energy	1.22x	1.09x	1.23x	1.50x
9	CMS Energy Corp.	0.89x	0.76x	0.71x	1.12x
10	Consol. Edison	0.76x	0.69x	0.73x	0.93x
11	Dominion Resources	0.81x	0.99x	1.17x	1.27x
12	DTE Energy	0.94x	0.65x	0.97x	1.21x
13	Duke Energy	0.87x	0.71x	0.77x	1.13x
14	Edison Int'l	0.94x	0.85x	0.80x	0.90x
15	El Paso Electric	1.04x	0.95x	0.97x	1.07x
16	Entergy Corp.	0.76x	0.71x	0.74x	1.16x
17	Eversource Energy	0.79x	0.69x	0.65x	1.18x
18	Evergy, Inc.	N/A	1.02x	1.37x	1.64x
19	Exelon Corp.	1.06x	1.09x	1.38x	1.62x
20	FirstEnergy Corp.	1.03x	0.73x	1.05x	1.20x
21	Fortis Inc.	0.76x	0.74x	0.68x	0.97x
22	Hawaiian Elec.	0.81x	1.08x	1.02x	1.06x
23	IDACORP, Inc.	1.33x	1.25x	1.26x	1.37x
24	MGE Energy	1.19x	0.70x	0.67x	0.73x
25	NextEra Energy, Inc.	0.53x	0.75x	0.83x	1.01x
26	NorthWestern Corp	1.21x	1.23x	1.08x	1.32x
27	OGE Energy	0.81x	1.17x	1.29x	1.73x
28	Otter Tail Corp.	1.10x	1.51x	0.46x	2.18x
29	PG&E Corp.	0.82x	0.52x	0.83x	0.93x
30	Pinnacle West Capital	0.76x	0.89x	0.97x	1.14x
31	PNM Resources	0.84x	0.83x	0.87x	0.82x
32	Portland General	1.07x	0.88x	1.35x	1.65x
33	PPL Corp.	0.82x	0.83x	0.92x	1.46x
34	Public Serv. Enterprise	0.64x	0.80x	1.10x	1.36x
35	SCANA Corp.	0.86x	0.84x	0.79x	0.88x
36	Sempra Energy	0.67x	0.80x	0.93x	1.56x
37	Southern Co.	0.90x	0.77x	0.94x	1.43x
38	Vectren Corp.	0.82x	0.79x	0.81x	0.79x
39	WEC Energy Group	0.92x	0.78x	0.77x	0.91x
40	Xcel Energy Inc.	0.84x	0.72x	0.78x	1.07x
41	Average	0.89x	0.86x	0.91x	1.18x
42	Median	0.84x	0.80x	0.85x	1.13x

Sources:

The Value Line Investment Survey Investment Analyzer Software,
downloaded on July 9, 2018.

The Value Line Investment Survey, October 26, November 16,
and December 14, 2018.

Notes:

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

Entergy New Orleans, Inc.

Proxy Group

<u>Line</u>	<u>Company</u>	<u>Credit Ratings¹</u>		<u>Common Equity Ratios</u>	
		<u>S&P</u> (1)	<u>Moody's</u> (2)	<u>MI¹</u> (3)	<u>Value Line²</u> (4)
1	ALLETE, Inc.	BBB+	A3	57.9%	59.0%
2	Alliant Energy Corporation	A-	Baa1	42.9%	51.0%
3	Ameren Corporation	BBB+	Baa1	45.6%	49.8%
4	American Electric Power Company, Inc.	A-	Baa1	44.1%	48.5%
5	Avangrid, Inc.	BBB+	Baa1	70.9%	74.4%
6	Black Hills Corporation	BBB+	Baa2	33.2%	35.5%
7	CMS Energy Corporation	BBB+	Baa1	29.7%	32.4%
8	DTE Energy Company	BBB+	Baa1	41.5%	43.8%
9	Duke Energy Corporation	A-	Baa1	43.4%	46.0%
10	El Paso Electric Company	BBB	Baa1	45.5%	48.8%
11	Hawaiian Electric Industries, Inc.	BBB-	N/A	52.7%	55.7%
12	IDACORP, Inc.	BBB	Baa1	56.3%	56.3%
13	NorthWestern Corporation	BBB	A3	45.7%	49.8%
14	OGE Energy Corp.	BBB+	Baa1	54.9%	58.3%
15	Otter Tail Corporation	BBB	Baa2	53.6%	58.7%
16	Pinnacle West Capital Corporation	A-	A3	49.6%	51.1%
17	PNM Resources, Inc.	BBB+	Baa3	37.5%	43.6%
18	Portland General Electric Company	BBB+	A3	49.9%	49.9%
19	WEC Energy Group, Inc.	A-	Baa1	46.1%	51.9%
20	Xcel Energy Inc.	A-	A3	42.0%	44.1%
21	Average	BBB+	Baa1	47.1%	50.4%
22	Entergy New Orleans, Inc.	BBB+³	Ba1³		52.2%⁴

Sources:

¹ S&P Global Market Intelligence, Downloaded on January 7, 2019.

² *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

³ Hevert direct at 12.

⁴ Hevert direct at 78.

Entergy New Orleans, Inc.

Consensus Analysts' Growth Rates

<u>Line</u>	<u>Company</u>	<u>Zacks</u>		<u>MI</u>		<u>Reuters</u>		<u>Average of Growth Rates</u> (7)
		<u>Estimated Growth %¹</u>	<u>Number of Estimates</u>	<u>Estimated Growth %²</u>	<u>Number of Estimates</u>	<u>Estimated Growth %³</u>	<u>Number of Estimates</u>	
		(1)	(2)	(3)	(4)	(5)	(6)	
1	ALLETE, Inc.	6.00%	N/A	6.57%	3	N/A	N/A	6.29%
2	Alliant Energy Corporation	6.00%	N/A	6.17%	5	6.90%	1	6.36%
3	Ameren Corporation	6.80%	N/A	6.53%	5	7.75%	2	7.03%
4	American Electric Power Company, Inc.	5.70%	N/A	5.50%	7	5.83%	2	5.68%
5	Avangrid, Inc.	8.70%	N/A	8.47%	3	8.55%	2	8.57%
6	Black Hills Corporation	4.50%	N/A	4.69%	3	4.37%	2	4.52%
7	CMS Energy Corporation	6.20%	N/A	6.89%	8	7.08%	4	6.72%
8	DTE Energy Company	6.00%	N/A	5.83%	5	5.50%	4	5.78%
9	Duke Energy Corporation	5.00%	N/A	4.62%	7	4.41%	2	4.68%
10	El Paso Electric Company	5.10%	N/A	5.69%	3	4.70%	1	5.16%
11	Hawaiian Electric Industries, Inc.	6.60%	N/A	6.57%	2	8.10%	1	7.09%
12	IDACORP, Inc.	2.80%	N/A	3.89%	2	2.60%	1	3.10%
13	NorthWestern Corporation	2.30%	N/A	1.97%	3	2.42%	2	2.23%
14	OGE Energy Corp.	5.20%	N/A	6.25%	2	- 2.25%	2	5.73%
15	Otter Tail Corporation	N/A	N/A	7.00%	1	N/A	N/A	7.00%
16	Pinnacle West Capital Corporation	4.50%	N/A	4.91%	6	4.11%	3	4.51%
17	PNM Resources, Inc.	4.70%	N/A	5.06%	5	5.05%	2	4.94%
18	Portland General Electric Company	3.30%	N/A	3.69%	3	5.10%	2	4.03%
19	WEC Energy Group, Inc.	4.40%	N/A	5.82%	4	4.67%	3	4.96%
20	Xcel Energy Inc.	5.90%	N/A	6.05%	5	6.49%	2	6.15%
21	Average	5.25%	N/A	5.61%	4	5.51%	2	5.53%

Sources and Note:

¹ Zacks, <http://www.zacks.com/>, downloaded on January 4, 2019.

² S&P Global Market Intelligence, <https://platform.mi.spglobal.com>, downloaded on January 4, 2019.

³ Reuters, <http://www.reuters.com/>, downloaded on January 4, 2019.

* Average excludes negative growth rates.

Entergy New Orleans, Inc.

Constant Growth DCF Model (Consensus Analysts' Growth Rates)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	ALLETE, Inc.	\$77.45	6.29%	\$2.24	3.07%	9.36%
2	Alliant Energy Corporation	\$43.94	6.36%	\$1.34	3.24%	9.60%
3	Ameren Corporation	\$66.79	7.03%	\$1.90	3.04%	10.07%
4	American Electric Power Company, Inc.	\$75.39	5.68%	\$2.68	3.76%	9.43%
5	Avangrid, Inc.	\$49.32	8.57%	\$1.76	3.87%	12.45%
6	Black Hills Corporation	\$63.16	4.52%	\$1.90	3.14%	7.66%
7	CMS Energy Corporation	\$50.55	6.72%	\$1.43	3.02%	9.74%
8	DTE Energy Company	\$114.99	5.78%	\$3.78	3.48%	9.25%
9	Duke Energy Corporation	\$85.56	4.68%	\$3.71	4.54%	9.22%
10	EI Paso Electric Company	\$55.61	5.16%	\$1.44	2.72%	7.89%
11	Hawaiian Electric Industries, Inc.	\$37.15	7.09%	\$1.24	3.57%	10.66%
12	IDACORP, Inc.	\$97.21	3.10%	\$2.52	2.67%	5.77%
13	NorthWestern Corporation	\$61.36	2.23%	\$2.20	3.67%	5.90%
14	OGE Energy Corp.	\$38.54	5.73%	\$1.46	4.01%	9.73%
15	Otter Tail Corporation	\$47.76	7.00%	\$1.34	3.00%	10.00%
16	Pinnacle West Capital Corporation	\$86.54	4.51%	\$2.78	3.36%	7.86%
17	PNM Resources, Inc.	\$41.11	4.94%	\$1.06	2.71%	7.64%
18	Portland General Electric Company	\$46.83	4.03%	\$1.45	3.22%	7.25%
19	WEC Energy Group, Inc.	\$70.40	4.96%	\$2.21	3.30%	8.26%
20	Xcel Energy Inc.	\$50.33	6.15%	\$1.52	3.21%	9.35%
21	Average	\$63.00	5.53%	\$2.00	3.33%	8.86%
22	Median					9.30%

Sources:

¹ S&P Global Market Intelligence, Downloaded on January 7, 2019.² Schedule CCW-3.³ *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Payout Ratios

<u>Line</u>	<u>Company</u>	<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2017</u> (1)	<u>Projected</u> (2)	<u>2017</u> (3)	<u>Projected</u> (4)	<u>2017</u> (5)	<u>Projected</u> (6)
1	ALLETE, Inc.	\$2.14	\$2.70	\$3.13	\$4.00	68.37%	67.50%
2	Alliant Energy Corporation	\$1.26	\$1.66	\$1.99	\$2.60	63.32%	63.85%
3	Ameren Corporation	\$1.78	\$2.35	\$2.77	\$4.00	64.26%	58.75%
4	American Electric Power Company, Inc.	\$2.39	\$3.20	\$3.62	\$5.00	66.02%	64.00%
5	Avangrid, Inc.	\$1.73	\$2.20	\$1.67	\$3.25	103.59%	67.69%
6	Black Hills Corporation	\$1.81	\$2.45	\$3.38	\$4.25	53.55%	57.65%
7	CMS Energy Corporation	\$1.33	\$1.85	\$2.17	\$3.00	61.29%	61.67%
8	DTE Energy Company	\$3.36	\$4.55	\$5.73	\$7.75	58.64%	58.71%
9	Duke Energy Corporation	\$3.49	\$4.30	\$4.22	\$5.50	82.70%	78.18%
10	El Paso Electric Company	\$1.32	\$1.85	\$2.42	\$3.00	54.55%	61.67%
11	Hawaiian Electric Industries, Inc.	\$1.24	\$1.40	\$1.64	\$2.25	75.61%	62.22%
12	IDACORP, Inc.	\$2.24	\$3.05	\$4.21	\$4.75	53.21%	64.21%
13	NorthWestern Corporation	\$2.10	\$2.60	\$3.34	\$4.00	62.87%	65.00%
14	OGE Energy Corp.	\$1.27	\$1.85	\$1.92	\$2.50	66.15%	74.00%
15	Otter Tail Corporation	\$1.28	\$1.55	\$1.86	\$2.80	68.82%	55.36%
16	Pinnacle West Capital Corporation	\$2.70	\$3.50	\$4.43	\$5.50	60.95%	63.64%
17	PNM Resources, Inc.	\$0.99	\$1.35	\$1.92	\$2.50	51.56%	54.00%
18	Portland General Electric Company	\$1.34	\$1.80	\$2.29	\$2.75	58.52%	65.45%
19	WEC Energy Group, Inc.	\$2.08	\$2.75	\$3.14	\$4.25	66.24%	64.71%
20	Xcel Energy Inc.	\$1.44	\$1.90	\$2.30	\$3.00	62.61%	63.33%
21	Average	\$1.86	\$2.44	\$2.91	\$3.83	65.14%	63.58%

Source:

The Value Line Investment Survey, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections										Sustainable
		Dividends	Earnings	Book Value	Book Value		Adjustment	Adjusted	Payout	Retention	Internal	Growth
		Per Share	Per Share	Per Share	Growth	ROE	Factor	ROE	Ratio	Rate	Growth Rate	Rate
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	ALLETE, Inc.	\$2.70	\$4.00	\$46.75	2.93%	8.56%	1.01	8.68%	67.50%	32.50%	2.82%	3.66%
2	Alliant Energy Corporation	\$1.66	\$2.60	\$24.30	6.09%	10.70%	1.03	11.02%	63.85%	36.15%	3.98%	5.63%
3	Ameren Corporation	\$2.35	\$4.00	\$37.75	4.98%	10.60%	1.02	10.85%	58.75%	41.25%	4.48%	5.23%
4	American Electric Power Company, Inc.	\$3.20	\$5.00	\$46.50	4.58%	10.75%	1.02	10.99%	64.00%	36.00%	3.96%	4.90%
5	Avangrid, Inc.	\$2.20	\$3.25	\$53.25	1.76%	6.10%	1.01	6.16%	67.69%	32.31%	1.99%	1.99%
6	Black Hills Corporation	\$2.45	\$4.25	\$42.50	5.89%	10.00%	1.03	10.29%	57.65%	42.35%	4.36%	6.58%
7	CMS Energy Corporation	\$1.85	\$3.00	\$22.50	7.37%	13.33%	1.04	13.81%	61.67%	38.33%	5.29%	7.19%
8	DTE Energy Company	\$4.55	\$7.75	\$70.00	5.71%	11.07%	1.03	11.38%	58.71%	41.29%	4.70%	6.66%
9	Duke Energy Corporation	\$4.30	\$5.50	\$65.75	1.97%	8.37%	1.01	8.45%	78.18%	21.82%	1.84%	2.39%
10	El Paso Electric Company	\$1.85	\$3.00	\$34.00	3.86%	8.82%	1.02	8.99%	61.67%	38.33%	3.45%	3.65%
11	Hawaiian Electric Industries, Inc.	\$1.40	\$2.25	\$23.75	4.26%	9.47%	1.02	9.67%	62.22%	37.78%	3.65%	4.36%
12	IDACORP, Inc.	\$3.05	\$4.75	\$53.50	3.68%	8.88%	1.02	9.04%	64.21%	35.79%	3.24%	3.24%
13	NorthWestern Corporation	\$2.60	\$4.00	\$43.00	3.37%	9.30%	1.02	9.46%	65.00%	35.00%	3.31%	3.76%
14	OGE Energy Corp.	\$1.85	\$2.50	\$22.75	3.37%	10.99%	1.02	11.17%	74.00%	26.00%	2.90%	2.90%
15	Otter Tail Corporation	\$1.55	\$2.80	\$25.90	8.01%	10.81%	1.04	11.23%	55.36%	44.64%	5.01%	8.69%
16	Pinnacle West Capital Corporation	\$3.50	\$5.50	\$53.25	3.52%	10.33%	1.02	10.51%	63.64%	36.36%	3.82%	4.03%
17	PNM Resources, Inc.	\$1.35	\$2.50	\$27.25	5.07%	9.17%	1.02	9.40%	54.00%	46.00%	4.32%	5.10%
18	Portland General Electric Company	\$1.80	\$2.75	\$31.75	3.21%	8.66%	1.02	8.80%	65.45%	34.55%	3.04%	3.18%
19	WEC Energy Group, Inc.	\$2.75	\$4.25	\$35.50	3.44%	11.97%	1.02	12.17%	64.71%	35.29%	4.30%	4.30%
20	Xcel Energy Inc.	\$1.90	\$3.00	\$28.00	4.42%	10.71%	1.02	10.95%	63.33%	36.67%	4.01%	5.07%
21	Average	\$2.44	\$3.83	\$39.40	4.37%	9.93%	1.02	10.15%	63.58%	36.42%	3.72%	4.63%

Sources and Notes:

Cols. (1), (2) and (3): *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

Col. (4): [Col. (3) / Page 2 Col. (2)] ^ (1/number of years projected) - 1.

Col. (5): Col. (2) / Col. (3).

Col. (6): [2 * (1 + Col. (4))] / (2 + Col. (4)).

Col. (7): Col. (6) * Col. (5).

Col. (8): Col. (1) / Col. (2).

Col. (9): 1 - Col. (8).

Col. (10): Col. (9) * Col. (7).

Col. (11): Col. (10) + Page 2 Col. (9).

Entergy New Orleans, Inc.

Sustainable Growth Rate

Line	Company	13-Week	2017	Market	Common Shares		Growth	S Factor ³	V Factor ⁴	S * V
		Average	Book Value	to Book	Outstanding (in Millions) ²					
		Stock Price ¹	Per Share ²	Ratio	2017	3-5 Years	(6)	(7)	(8)	(9)
		(1)	(2)	(3)	(4)	(5)				
1	ALLETE, Inc.	\$77.45	\$40.47	1.91	51.10	53.50	0.92%	1.76%	47.74%	0.84%
2	Alliant Energy Corporation	\$43.94	\$18.08	2.43	231.35	245.00	1.15%	2.80%	58.85%	1.65%
3	Ameren Corporation	\$66.79	\$29.61	2.26	242.63	250.00	0.60%	1.35%	55.67%	0.75%
4	American Electric Power Company, Inc.	\$75.39	\$37.17	2.03	492.01	515.00	0.92%	1.86%	50.70%	0.94%
5	Avangrid, Inc.	\$49.32	\$48.79	1.01	309.01	309.00	- 0.00%	- 0.00%	1.07%	- 0.00%
6	Black Hills Corporation	\$63.16	\$31.92	1.98	53.54	59.90	2.27%	4.49%	49.46%	2.22%
7	CMS Energy Corporation	\$50.55	\$15.77	3.21	281.65	294.00	0.86%	2.76%	68.80%	1.90%
8	DTE Energy Company	\$114.99	\$53.03	2.17	179.39	195.00	1.68%	3.65%	53.88%	1.97%
9	Duke Energy Corporation	\$85.56	\$59.63	1.43	700.00	745.00	1.25%	1.80%	30.31%	0.55%
10	El Paso Electric Company	\$55.61	\$28.14	1.98	40.58	41.00	0.21%	0.41%	49.39%	0.20%
11	Hawaiian Electric Industries, Inc.	\$37.15	\$19.28	1.93	108.79	113.00	0.76%	1.47%	48.11%	0.71%
12	IDACORP, Inc.	\$97.21	\$44.65	2.18	50.42	50.40	- 0.01%	- 0.02%	54.07%	- 0.01%
13	NorthWestern Corporation	\$61.36	\$36.44	1.68	49.37	51.00	0.65%	1.10%	40.61%	0.45%
14	OGE Energy Corp.	\$38.54	\$19.28	2.00	199.70	199.70	0.00%	0.00%	49.97%	0.00%
15	Otter Tail Corporation	\$47.76	\$17.62	2.71	39.56	44.00	2.15%	5.83%	63.11%	3.68%
16	Pinnacle West Capital Corporation	\$86.54	\$44.80	1.93	111.75	113.00	0.22%	0.43%	48.23%	0.21%
17	PNM Resources, Inc.	\$41.11	\$21.28	1.93	79.65	83.00	0.83%	1.60%	48.24%	0.77%
18	Portland General Electric Company	\$46.83	\$27.11	1.73	89.11	90.00	0.20%	0.34%	42.11%	0.14%
19	WEC Energy Group, Inc.	\$70.40	\$29.98	2.35	315.57	315.50	- 0.00%	- 0.01%	57.41%	- 0.01%
20	Xcel Energy Inc.	\$50.33	\$22.56	2.23	507.76	530.00	0.86%	1.92%	55.18%	1.06%
21	Average	\$63.00	\$32.28	2.05	206.65	214.85	0.91%	1.98%	48.64%	1.06%

Sources and Notes:

¹ S&P Global Market Intelligence, Downloaded on January 7, 2019.

² *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

³ Expected Growth in the Number of Shares, Column (3) * Column (6).

⁴ Expected Profit of Stock Investment, [1 - 1 / Column (3)].

Entergy New Orleans, Inc.

Constant Growth DCF Model (Sustainable Growth Rate)

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	ALLETE, Inc.	\$77.45	3.66%	\$2.24	3.00%	6.66%
2	Alliant Energy Corporation	\$43.94	5.63%	\$1.34	3.22%	8.85%
3	Ameren Corporation	\$66.79	5.23%	\$1.90	2.99%	8.22%
4	American Electric Power Company, Inc.	\$75.39	4.90%	\$2.68	3.73%	8.63%
5	Avangrid, Inc.	\$49.32	1.99%	\$1.76	3.64%	5.63%
6	Black Hills Corporation	\$63.16	6.58%	\$1.90	3.21%	9.78%
7	CMS Energy Corporation	\$50.55	7.19%	\$1.43	3.03%	10.23%
8	DTE Energy Company	\$114.99	6.66%	\$3.78	3.51%	10.17%
9	Duke Energy Corporation	\$85.56	2.39%	\$3.71	4.44%	6.83%
10	El Paso Electric Company	\$55.61	3.65%	\$1.44	2.68%	6.33%
11	Hawaiian Electric Industries, Inc.	\$37.15	4.36%	\$1.24	3.48%	7.84%
12	IDACORP, Inc.	\$97.21	3.24%	\$2.52	2.68%	5.91%
13	NorthWestern Corporation	\$61.36	3.76%	\$2.20	3.72%	7.48%
14	OGE Energy Corp.	\$38.54	2.90%	\$1.46	3.90%	6.80%
15	Otter Tail Corporation	\$47.76	8.69%	\$1.34	3.05%	11.74%
16	Pinnacle West Capital Corporation	\$86.54	4.03%	\$2.78	3.34%	7.37%
17	PNM Resources, Inc.	\$41.11	5.10%	\$1.06	2.71%	7.81%
18	Portland General Electric Company	\$46.83	3.18%	\$1.45	3.20%	6.38%
19	WEC Energy Group, Inc.	\$70.40	4.30%	\$2.21	3.27%	7.57%
20	Xcel Energy Inc.	\$50.33	5.07%	\$1.52	3.17%	8.25%
21	Average	\$63.00	4.63%	\$2.00	3.30%	7.92%
22	Median					7.69%

Sources:

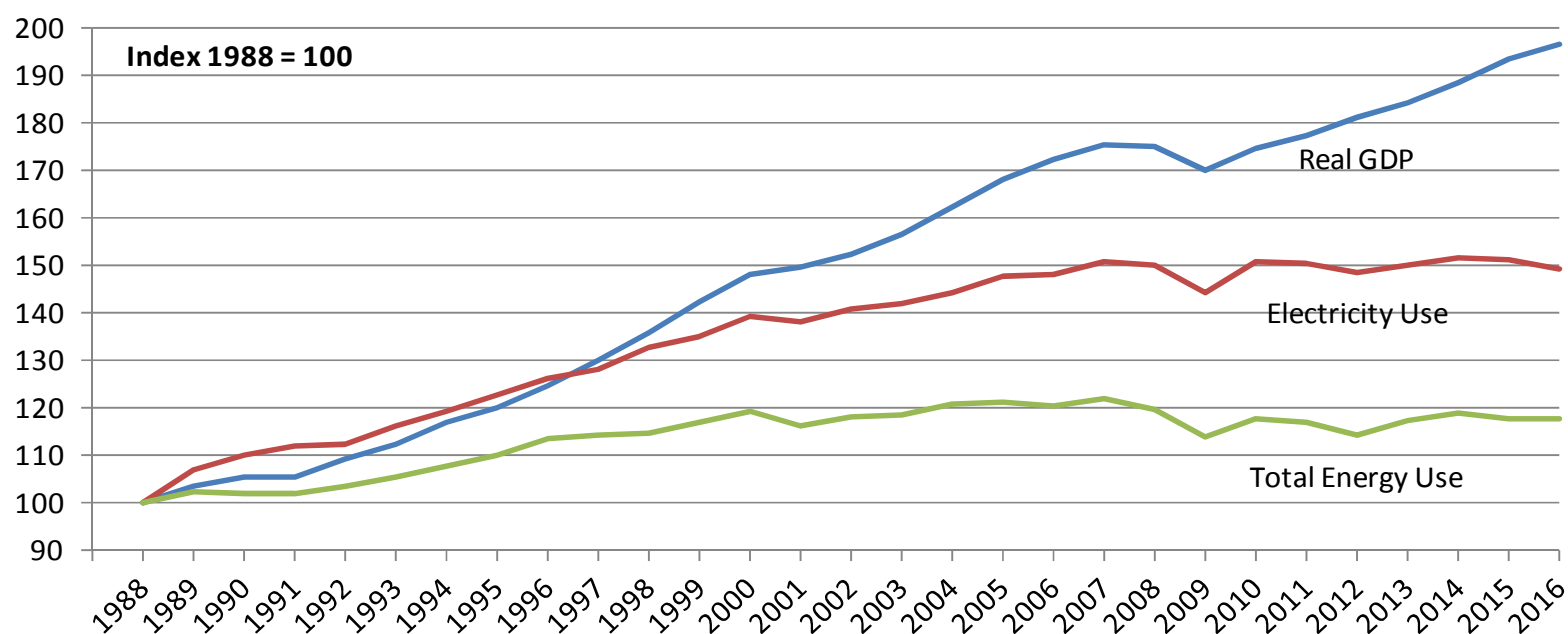
¹ S&P Global Market Intelligence, Downloaded on January 7, 2019.

² Schedule CCW-6, page 1.

³ *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

Electricity Sales Are Linked to U.S. Economic Growth



Note:

1988 represents the base year. Graph depicts increases or decreases from the base year.

Sources:

U.S. Energy Information Administration
Federal Reserve Bank of St. Louis

Entergy New Orleans, Inc.

Multi-Stage Growth DCF Model

Line	Company	13-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
		Stock Price ¹	Dividend ²	Growth ³	Year 6	Year 7	Year 8	Year 9	Year 10	Growth ⁴	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	ALLETE, Inc.	\$77.45	\$2.24	6.29%	5.94%	5.59%	5.24%	4.89%	4.54%	4.19%	7.64%
2	Alliant Energy Corporation	\$43.94	\$1.34	6.36%	6.00%	5.64%	5.27%	4.91%	4.55%	4.19%	7.84%
3	Ameren Corporation	\$66.79	\$1.90	7.03%	6.55%	6.08%	5.61%	5.14%	4.67%	4.19%	7.74%
4	American Electric Power Company, Inc.	\$75.39	\$2.68	5.68%	5.43%	5.18%	4.93%	4.69%	4.44%	4.19%	8.26%
5	Avangrid, Inc.	\$49.32	\$1.76	8.57%	7.84%	7.11%	6.38%	5.65%	4.92%	4.19%	9.06%
6	Black Hills Corporation	\$63.16	\$1.90	4.52%	4.47%	4.41%	4.36%	4.30%	4.25%	4.19%	7.39%
7	CMS Energy Corporation	\$50.55	\$1.43	6.72%	6.30%	5.88%	5.46%	5.04%	4.61%	4.19%	7.66%
8	DTE Energy Company	\$114.99	\$3.78	5.78%	5.51%	5.25%	4.98%	4.72%	4.46%	4.19%	7.98%
9	Duke Energy Corporation	\$85.56	\$3.71	4.68%	4.60%	4.52%	4.43%	4.35%	4.27%	4.19%	8.85%
10	El Paso Electric Company	\$55.61	\$1.44	5.16%	5.00%	4.84%	4.68%	4.52%	4.35%	4.19%	7.06%
11	Hawaiian Electric Industries, Inc.	\$37.15	\$1.24	7.09%	6.61%	6.12%	5.64%	5.16%	4.68%	4.19%	8.36%
12	IDACORP, Inc.	\$97.21	\$2.52	3.10%	3.28%	3.46%	3.64%	3.83%	4.01%	4.19%	6.68%
13	NorthWestern Corporation	\$61.36	\$2.20	2.23%	2.56%	2.88%	3.21%	3.54%	3.87%	4.19%	7.47%
14	OGE Energy Corp.	\$38.54	\$1.46	5.73%	5.47%	5.21%	4.96%	4.70%	4.45%	4.19%	8.54%
15	Otter Tail Corporation	\$47.76	\$1.34	7.00%	6.53%	6.06%	5.60%	5.13%	4.66%	4.19%	7.69%
16	Pinnacle West Capital Corporation	\$86.54	\$2.78	4.51%	4.45%	4.40%	4.35%	4.30%	4.25%	4.19%	7.60%
17	PNM Resources, Inc.	\$41.11	\$1.06	4.94%	4.81%	4.69%	4.56%	4.44%	4.32%	4.19%	7.00%
18	Portland General Electric Company	\$46.83	\$1.45	4.03%	4.06%	4.08%	4.11%	4.14%	4.17%	4.19%	7.38%
19	WEC Energy Group, Inc.	\$70.40	\$2.21	4.96%	4.83%	4.71%	4.58%	4.45%	4.32%	4.19%	7.63%
20	Xcel Energy Inc.	\$50.33	\$1.52	6.15%	5.82%	5.50%	5.17%	4.84%	4.52%	4.19%	7.75%
21	Average	\$63.00	\$2.00	5.53%	5.30%	5.08%	4.86%	4.64%	4.42%	4.19%	7.78%
22	Median										7.67%

Sources:

¹ S&P Global Market Intelligence, Downloaded on January 7, 2019.

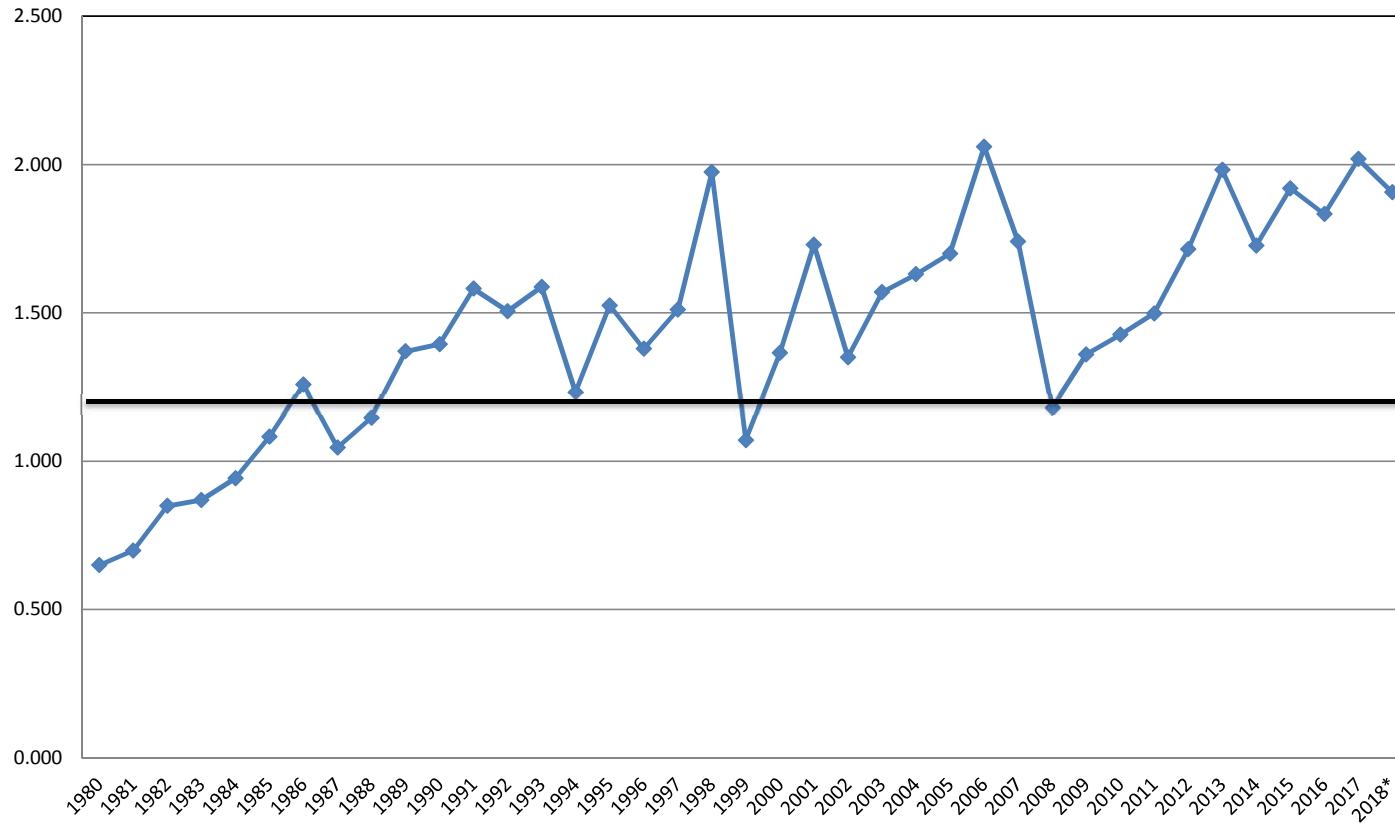
² *The Value Line Investment Survey*, October 26, November 16, and December 14, 2018.

³ Schedule CCW-3.

⁴ *Blue Chip Financial Forecasts*, December 1, 2018 at 14.

Entergy New Orleans, Inc.

Common Stock Market/Book Ratio



Source:

1980 - 2000: Mergent Public Utility Manual.

2001 - 2015: AUS Utility Reports, multiple dates.

2016 - 2017: Value Line Investment Survey, multiple dates.

* Value Line Investment Survey Reports, October 26, November 16, November 30, and December 14, 2018.

Entergy New Orleans, Inc.

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>30 yr. Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.93%	7.80%	6.13%		
2	1987	12.99%	8.58%	4.41%		
3	1988	12.79%	8.96%	3.83%		
4	1989	12.97%	8.45%	4.52%		
5	1990	12.70%	8.61%	4.09%	4.60%	
6	1991	12.55%	8.14%	4.41%	4.25%	
7	1992	12.09%	7.67%	4.42%	4.26%	
8	1993	11.41%	6.60%	4.81%	4.45%	
9	1994	11.34%	7.37%	3.97%	4.34%	
10	1995	11.55%	6.88%	4.67%	4.46%	4.53%
11	1996	11.39%	6.70%	4.69%	4.51%	4.38%
12	1997	11.40%	6.61%	4.79%	4.59%	4.42%
13	1998	11.66%	5.58%	6.08%	4.84%	4.65%
14	1999	10.77%	5.87%	4.90%	5.03%	4.68%
15	2000	11.43%	5.94%	5.49%	5.19%	4.82%
16	2001	11.09%	5.49%	5.60%	5.37%	4.94%
17	2002	11.16%	5.43%	5.73%	5.56%	5.07%
18	2003	10.97%	4.96%	6.01%	5.55%	5.19%
19	2004	10.75%	5.05%	5.70%	5.71%	5.37%
20	2005	10.54%	4.65%	5.89%	5.79%	5.49%
21	2006	10.34%	4.90%	5.44%	5.76%	5.56%
22	2007	10.31%	4.83%	5.48%	5.71%	5.63%
23	2008	10.37%	4.28%	6.09%	5.72%	5.63%
24	2009	10.52%	4.07%	6.45%	5.87%	5.79%
25	2010	10.29%	4.25%	6.04%	5.90%	5.84%
26	2011	10.19%	3.91%	6.28%	6.07%	5.91%
27	2012	10.01%	2.92%	7.09%	6.39%	6.05%
28	2013	9.81%	3.45%	6.36%	6.44%	6.08%
29	2014	9.75%	3.34%	6.41%	6.44%	6.15%
30	2015	9.60%	2.84%	6.76%	6.58%	6.24%
31	2016	9.60%	2.60%	7.00%	6.72%	6.40%
32	2017	9.68%	2.90%	6.79%	6.66%	6.53%
33	2018	9.55%	3.11%	6.44%	6.68%	6.56%
34	Average	11.08%	5.54%	5.54%	5.50%	5.50%
35	Minimum				4.25%	4.38%
36	Maximum				6.72%	6.56%

Sources:

¹ *Regulatory Research Associates, Inc.*, Regulatory Focus, Major Rate Case Decisions, Jan. 1997 pg. 5, and Jan. 2011 pg. 3. *S&P Global Market Intelligence*, RRA Regulatory Focus, Major Rate Case Decisions, January-December 2018, January 31, 2019, p. 9.

2006 - 2018 Authorized Returns exclude limited issue rider cases.

² St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.

The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

Entergy New Orleans, Inc.

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>Average "A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)	<u>Rolling 5 - Year Average</u> (4)	<u>Rolling 10 - Year Average</u> (5)
1	1986	13.93%	9.58%	4.35%		
2	1987	12.99%	10.10%	2.89%		
3	1988	12.79%	10.49%	2.30%		
4	1989	12.97%	9.77%	3.20%		
5	1990	12.70%	9.86%	2.84%	3.12%	
6	1991	12.55%	9.36%	3.19%	2.88%	
7	1992	12.09%	8.69%	3.40%	2.99%	
8	1993	11.41%	7.59%	3.82%	3.29%	
9	1994	11.34%	8.31%	3.03%	3.26%	
10	1995	11.55%	7.89%	3.66%	3.42%	3.27%
11	1996	11.39%	7.75%	3.64%	3.51%	3.20%
12	1997	11.40%	7.60%	3.80%	3.59%	3.29%
13	1998	11.66%	7.04%	4.62%	3.75%	3.52%
14	1999	10.77%	7.62%	3.15%	3.77%	3.52%
15	2000	11.43%	8.24%	3.19%	3.68%	3.55%
16	2001	11.09%	7.76%	3.33%	3.62%	3.56%
17	2002	11.16%	7.37%	3.79%	3.61%	3.60%
18	2003	10.97%	6.58%	4.39%	3.57%	3.66%
19	2004	10.75%	6.16%	4.59%	3.86%	3.82%
20	2005	10.54%	5.65%	4.89%	4.20%	3.94%
21	2006	10.34%	6.07%	4.27%	4.39%	4.00%
22	2007	10.31%	6.07%	4.24%	4.48%	4.04%
23	2008	10.37%	6.53%	3.84%	4.37%	3.97%
24	2009	10.52%	6.04%	4.48%	4.34%	4.10%
25	2010	10.29%	5.47%	4.82%	4.33%	4.26%
26	2011	10.19%	5.04%	5.15%	4.51%	4.45%
27	2012	10.01%	4.13%	5.88%	4.83%	4.66%
28	2013	9.81%	4.48%	5.33%	5.13%	4.75%
29	2014	9.75%	4.28%	5.47%	5.33%	4.84%
30	2015	9.60%	4.12%	5.48%	5.46%	4.90%
31	2016	9.60%	3.93%	5.67%	5.57%	5.04%
32	2017	9.68%	4.00%	5.68%	5.53%	5.18%
33	2018	9.55%	4.25%	5.30%	5.52%	5.33%
34	Average	11.08%	6.90%	4.17%	4.13%	4.10%
35	Minimum				2.88%	3.20%
36	Maximum				5.57%	5.33%

Sources:

¹ Regulatory Research Associates, Inc., Regulatory Focus, Major Rate Case Decisions, Jan. 1997 pg. 5, and Jan. 2011 pg. 3.
S&P Global Market Intelligence, RRA Regulatory Focus, Major Rate Case Decisions, January-December 2018, January 31, 2019, p. 9.

2006 - 2018 Authorized Returns exclude limited issue rider cases.

² Mergent Public Utility Manual, Mergent Weekly News Reports, 2003.

The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record.

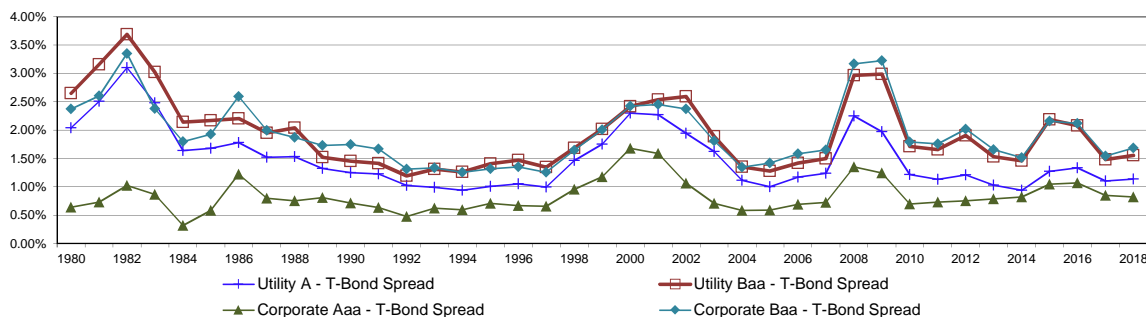
The utility yields from 2010-2017 were obtained from <http://credittrends.moodys.com/>.

Entergy New Orleans, Inc.

Bond Yield Spreads

Line	Year	T-Bond Yield ¹ (1)	Public Utility Bond				Corporate Bond				Utility to Corporate	
			A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ³ (6)	Baa ³ (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Spread (10)	A-Aaa Spread (11)
1	1980	11.30%	13.34%	13.95%	2.04%	2.65%	11.94%	13.67%	0.64%	2.37%	0.28%	1.40%
2	1981	13.44%	15.95%	16.60%	2.51%	3.16%	14.17%	16.04%	0.73%	2.60%	0.56%	1.78%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%	2.07%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.38%	0.65%	1.62%
5	1984	12.39%	14.03%	14.53%	1.64%	2.14%	12.71%	14.19%	0.32%	1.80%	0.34%	1.32%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%	1.10%
7	1986	7.80%	9.58%	10.00%	1.78%	2.20%	9.02%	10.39%	1.22%	2.59%	-0.39%	0.56%
8	1987	8.58%	10.10%	10.53%	1.52%	1.95%	9.38%	10.58%	0.80%	2.00%	-0.05%	0.72%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%	0.78%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%	0.51%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.30%	0.54%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.67%	-0.25%	0.59%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%	0.55%
14	1993	6.60%	7.59%	7.91%	0.99%	1.31%	7.22%	7.93%	0.62%	1.33%	-0.02%	0.37%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%	0.35%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%	0.30%
17	1996	6.70%	7.75%	8.17%	1.05%	1.47%	7.37%	8.05%	0.67%	1.35%	0.12%	0.38%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.66%	1.26%	0.09%	0.34%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%	0.51%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.18%	2.01%	0.01%	0.58%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	-0.01%	0.62%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.45%	0.08%	0.68%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%	0.88%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.08%	0.91%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.35%	0.00%	0.53%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.42%	-0.14%	0.41%
27	2006	4.90%	6.07%	6.32%	1.17%	1.42%	5.59%	6.48%	0.69%	1.58%	-0.16%	0.48%
28	2007	4.83%	6.07%	6.33%	1.24%	1.50%	5.56%	6.48%	0.72%	1.65%	-0.15%	0.52%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%	0.90%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%	0.73%
31	2010	4.25%	5.47%	5.96%	1.22%	1.71%	4.95%	6.04%	0.70%	1.79%	-0.08%	0.52%
32	2011	3.91%	5.04%	5.57%	1.13%	1.66%	4.64%	5.67%	0.73%	1.76%	-0.10%	0.40%
33	2012	2.92%	4.13%	4.83%	1.21%	1.90%	3.67%	4.94%	0.75%	2.02%	-0.11%	0.46%
34	2013	3.45%	4.48%	4.98%	1.03%	1.53%	4.24%	5.10%	0.79%	1.65%	-0.12%	0.24%
35	2014	3.34%	4.28%	4.80%	0.94%	1.46%	4.16%	4.86%	0.82%	1.52%	-0.06%	0.12%
36	2015	2.84%	4.12%	5.03%	1.27%	2.19%	3.89%	5.00%	1.05%	2.16%	0.03%	0.23%
37	2016	2.60%	3.93%	4.67%	1.33%	2.08%	3.66%	4.71%	1.07%	2.12%	-0.04%	0.27%
38	2017	2.90%	4.00%	4.38%	1.10%	1.48%	3.74%	4.44%	0.85%	1.55%	-0.06%	0.26%
39	2018	3.11%	4.25%	4.67%	1.14%	1.56%	3.93%	4.80%	0.82%	1.69%	-0.13%	0.32%
40	Average	6.53%	8.03%	8.47%	1.50%	1.94%	7.37%	8.46%	0.84%	1.93%	0.01%	0.66%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

- ¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>.
- ² The utility yields for the period 1980-2000 were obtained from Mergent Public Utility Manual, Mergent Weekly News Reports, 2003. The utility yields for the period 2001-2009 were obtained from the Mergent Bond Record. The utility yields for the period 2010-2017 were obtained from <http://credittrends.moodys.com/>.
- ³ The corporate yields for the period 1980-2009 were obtained from the St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>. The corporate yields from 2010-2017 were obtained from <http://credittrends.moodys.com/>.

Entergy New Orleans, Inc.

Treasury and Utility Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	01/04/19	2.98%	4.31%	4.88%
2	12/28/18	3.04%	4.35%	4.91%
3	12/21/18	3.03%	4.31%	4.88%
4	12/14/18	3.14%	4.41%	4.94%
5	12/07/18	3.14%	4.41%	4.95%
6	11/30/18	3.30%	4.53%	5.07%
7	11/23/18	3.31%	4.49%	5.02%
8	11/16/18	3.33%	4.49%	5.00%
9	11/09/18	3.40%	4.53%	5.00%
10	11/02/18	3.46%	4.58%	5.06%
11	10/26/18	3.32%	4.44%	4.91%
12	10/19/18	3.38%	4.48%	4.95%
13	10/12/18	3.32%	4.42%	4.88%
14	Average	3.24%	4.44%	4.96%
15	Spread To Treasury		1.20%	1.72%

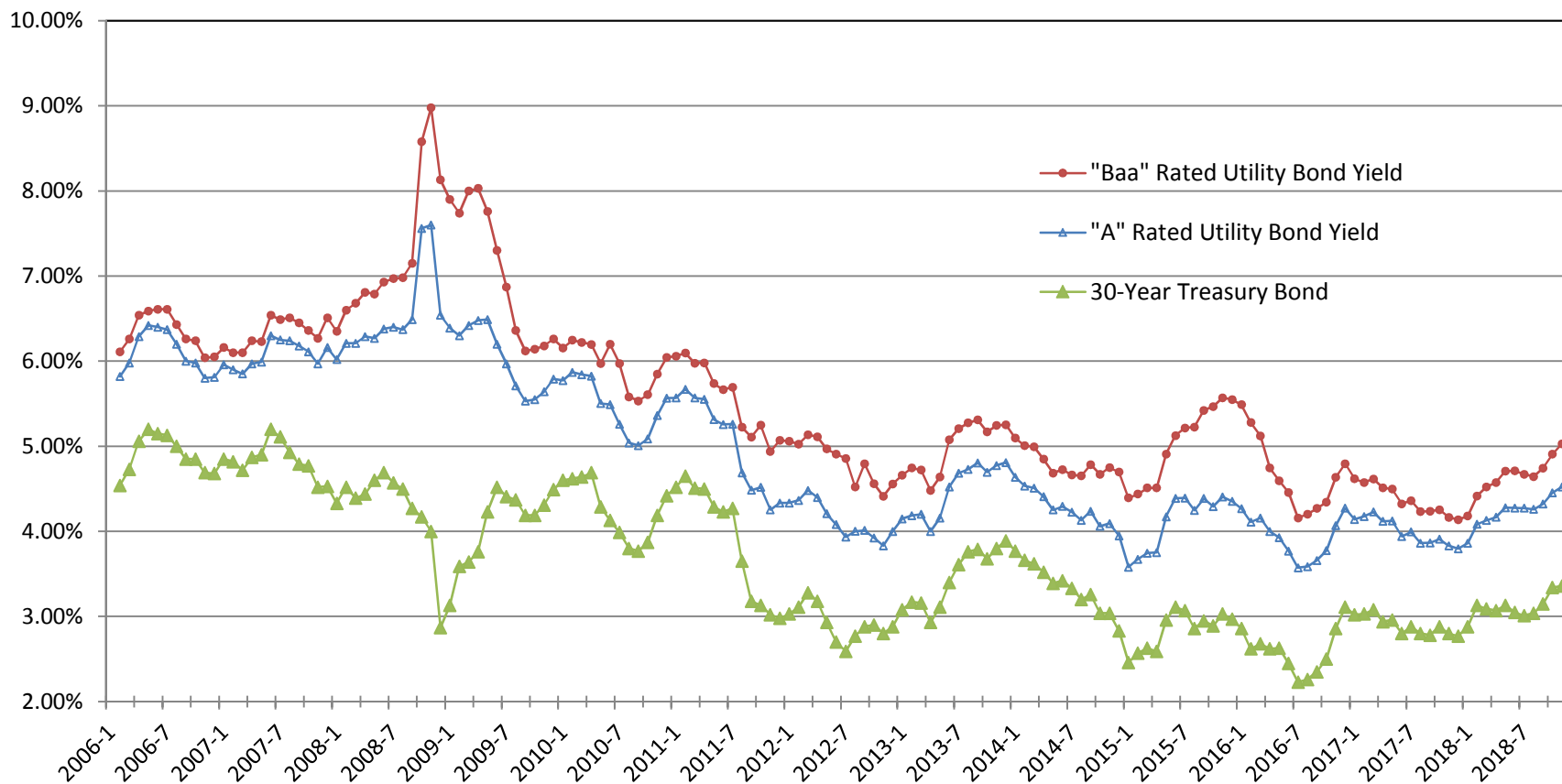
Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² <http://credittrends.moody.com/>.

Entergy New Orleans, Inc.

Trends in Bond Yields



Sources:

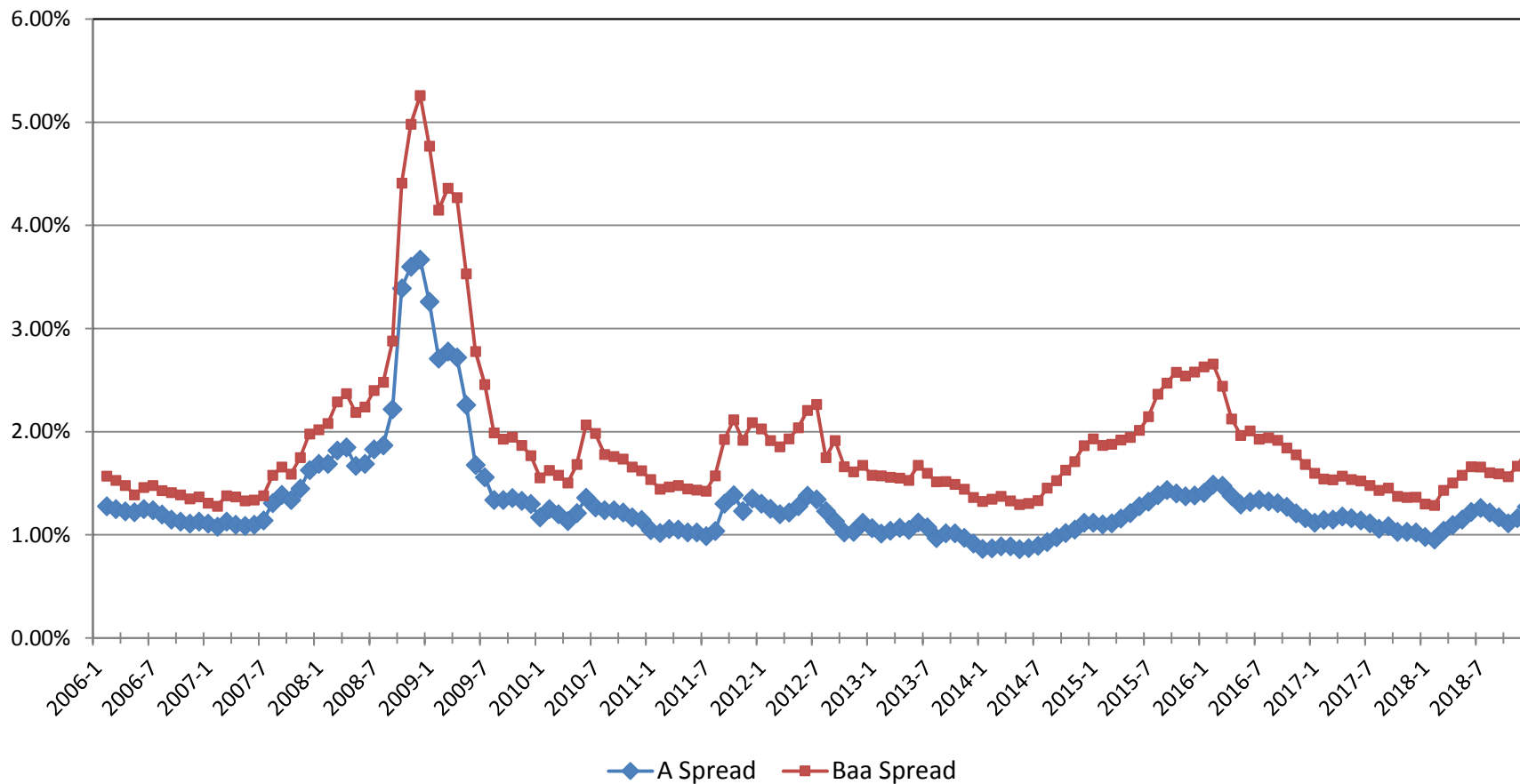
Mergent Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

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

Entergy New Orleans, Inc.

Yield Spread Between Utility Bonds and 30-Year Treasury Bonds



Sources:

Mergent Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

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

Entergy New Orleans, Inc.

Value Line Beta

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	ALLETE, Inc.	0.65
2	Alliant Energy Corporation	0.60
3	Ameren Corporation	0.55
4	American Electric Power Company, Inc.	0.55
5	Avangrid, Inc.	0.30
6	Black Hills Corporation	0.80
7	CMS Energy Corporation	0.55
8	DTE Energy Company	0.55
9	Duke Energy Corporation	0.50
10	El Paso Electric Company	0.70
11	Hawaiian Electric Industries, Inc.	0.60
12	IDACORP, Inc.	0.60
13	NorthWestern Corporation	0.60
14	OGE Energy Corp.	0.85
15	Otter Tail Corporation	0.75
16	Pinnacle West Capital Corporation	0.60
17	PNM Resources, Inc.	0.65
18	Portland General Electric Company	0.60
19	WEC Energy Group, Inc.	0.50
20	Xcel Energy Inc.	0.55
21	Average	0.60

Source:

The Value Line Investment Survey,

October 26, November 16, and December 14, 2018.

Entergy New Orleans, Inc.

CAPM Return

<u>Line</u>	<u>Description</u>	High Market Risk <u>Premium</u> (1)	Low Market Risk <u>Premium</u> (2)
1	Risk-Free Rate ¹	3.60%	3.60%
2	Risk Premium ²	7.70%	6.10%
3	Beta ³	0.60	0.60
4	CAPM	8.24%	7.28%

Sources:

¹ *Blue Chip Financial Forecasts*, January 1, 2019, at 2.

² *Duff & Phelps, 2018 SBBI Yearbook* at 6-17 and 6-18, and
Duff & Phelps, 2018 Valuation Handbook at 3-33 and 3-45.

³ Schedule CCW-15.

Entergy New Orleans, Inc.

Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 30 Day Average Stock Price (Average EPS Growth Rate Estimate in First Stage)

Line	Company	Stock Price (1)	EPS Growth Rate Estimates				Long-Term Growth (6)	Payout Ratio			Iterative Solution		Terminal P/E Ratio (12)	Terminal PEG Ratio (13)
			Zacks (2)	First Call (3)	Value Line (4)	Average (5)		2018 (7)	2022 (8)	2028 (9)	Proof (10)	IRR (11)		
1	ALLETE, Inc.	\$75.23	6.00%	6.00%	5.00%	5.67%	4.19%	65.00%	64.00%	65.00%	(\$0.00)	7.90%	22.31	5.32
2	Alliant Energy Corporation	\$40.60	5.60%	5.85%	6.50%	5.98%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.51%	18.54	4.43
3	Ameren Corporation	\$57.18	6.50%	6.30%	7.50%	6.77%	4.19%	60.00%	59.00%	60.00%	\$0.00	8.48%	18.12	4.32
4	American Electric Power Company, Inc.	\$66.01	5.70%	5.79%	4.50%	5.33%	4.19%	67.00%	63.00%	67.00%	\$0.00	8.88%	17.25	4.12
5	Avangrid, Inc.	\$51.90	9.10%	10.40%	13.00%	10.83%	4.19%	76.00%	66.00%	76.00%	\$0.00	8.46%	20.46	4.88
6	Black Hills Corporation	\$57.15	4.10%	3.86%	5.00%	4.32%	4.19%	55.00%	60.00%	55.00%	\$0.00	8.48%	17.45	4.16
7	CMS Energy Corporation	\$44.60	6.40%	7.05%	7.00%	6.82%	4.19%	61.00%	61.00%	61.00%	\$0.00	8.56%	17.89	4.27
8	DTE Energy Company	\$100.10	5.30%	5.59%	7.00%	5.96%	4.19%	61.00%	60.00%	61.00%	\$0.00	8.98%	16.10	3.84
9	Duke Energy Corporation	\$75.51	4.70%	4.22%	5.50%	4.81%	4.19%	76.00%	80.00%	76.00%	\$0.00	9.31%	16.62	3.97
10	El Paso Electric	\$56.46	5.10%	5.20%	4.50%	4.93%	4.19%	57.00%	61.00%	57.00%	(\$0.00)	7.62%	23.03	5.50
11	Hawaiian Electric Industries, Inc.	\$33.60	7.10%	9.10%	3.50%	6.57%	4.19%	66.00%	59.00%	66.00%	\$0.00	8.66%	18.09	4.32
12	IDACORP, Inc.	\$89.53	3.90%	3.10%	3.50%	3.50%	4.19%	57.00%	63.00%	57.00%	(\$0.00)	7.63%	23.00	5.49
13	NextEra Energy, Inc.	\$159.84	8.60%	9.79%	8.50%	8.96%	4.19%	55.00%	63.00%	55.00%	\$0.00	8.23%	18.69	4.46
14	NorthWestern Corporation	\$53.53	3.00%	3.16%	3.50%	3.22%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.76%	17.38	4.15
15	OGE Energy Corp.	\$34.04	6.00%	4.30%	6.00%	5.43%	4.19%	69.00%	71.00%	69.00%	\$0.00	9.19%	16.29	3.89
16	Otter Tail Corporation	\$45.22	NA	9.00%	7.50%	8.25%	4.19%	66.00%	60.00%	66.00%	\$0.00	8.43%	19.24	4.59
17	Pinnacle West Capital Corporation	\$76.97	4.50%	3.78%	5.00%	4.43%	4.19%	63.00%	63.00%	63.00%	\$0.00	8.70%	17.50	4.18
18	PNM Resources, Inc.	\$38.00	5.10%	4.30%	7.50%	5.63%	4.19%	53.00%	50.00%	53.00%	\$0.00	8.08%	19.19	4.58
19	Portland General Electric Company	\$41.01	2.80%	2.65%	4.00%	3.15%	4.19%	64.00%	63.00%	64.00%	\$0.00	8.31%	19.61	4.68
20	Southern Company	\$44.06	4.50%	2.72%	3.00%	3.41%	4.19%	80.00%	74.00%	80.00%	\$0.00	10.33%	13.86	3.31
21	WEC Energy Group, Inc.	\$61.25	4.10%	4.43%	7.00%	5.18%	4.19%	66.00%	64.00%	66.00%	\$0.00	8.55%	18.63	4.45
22	Xcel Energy Inc.	\$44.19	5.70%	5.89%	5.50%	5.70%	4.19%	62.00%	63.00%	62.00%	\$0.00	<u>8.60%</u>	17.86	4.26
23	Mean											8.57%		

Sources:

Exhibit RBH-3.

Blue Chip Financial Forecasts, December 1, 2018.

Entergy New Orleans, Inc.

Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 90 Day Average Stock Price (Average EPS Growth Rate Estimate in First Stage)

Line	Company	Stock Price (1)	EPS Growth Rate Estimates				Long-Term Growth (6)	Payout Ratio			Iterative Solution		Terminal P/E Ratio (12)	Terminal PEG Ratio (13)
			Zacks (2)	First Call (3)	Value Line (4)	Average (5)		2018 (7)	2022 (8)	2028 (9)	Proof (10)	IRR (11)		
1	ALLETE, Inc.	\$72.50	6.00%	6.00%	5.00%	5.67%	4.19%	65.00%	64.00%	65.00%	(\$0.00)	8.25%	22.31	5.32
2	Alliant Energy Corporation	\$40.29	5.60%	5.85%	6.50%	5.98%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.58%	18.54	4.43
3	Ameren Corporation	\$56.21	6.50%	6.30%	7.50%	6.77%	4.19%	60.00%	59.00%	60.00%	\$0.00	8.65%	18.12	4.32
4	American Electric Power Company, Inc.	\$66.84	5.70%	5.79%	4.50%	5.33%	4.19%	67.00%	63.00%	67.00%	\$0.00	8.76%	17.25	4.12
5	Avangrid, Inc.	\$50.61	9.10%	10.40%	13.00%	10.83%	4.19%	76.00%	66.00%	76.00%	\$0.00	8.70%	20.46	4.88
6	Black Hills Corporation	\$54.56	4.10%	3.86%	5.00%	4.32%	4.19%	55.00%	60.00%	55.00%	\$0.00	8.93%	17.45	4.16
7	CMS Energy Corporation	\$44.34	6.40%	7.05%	7.00%	6.82%	4.19%	61.00%	61.00%	61.00%	\$0.00	8.62%	17.89	4.27
8	DTE Energy Company	\$101.87	5.30%	5.59%	7.00%	5.96%	4.19%	61.00%	60.00%	61.00%	\$0.00	8.81%	16.10	3.84
9	Duke Energy Corporation	\$76.57	4.70%	4.22%	5.50%	4.81%	4.19%	76.00%	80.00%	76.00%	\$0.00	9.16%	16.62	3.97
10	El Paso Electric	\$52.05	5.10%	5.20%	4.50%	4.93%	4.19%	57.00%	61.00%	57.00%	(\$0.00)	8.37%	23.03	5.50
11	Hawaiian Electric Industries, Inc.	\$33.76	7.10%	9.10%	3.50%	6.57%	4.19%	66.00%	59.00%	66.00%	\$0.00	8.61%	18.09	4.32
12	IDACORP, Inc.	\$87.21	3.90%	3.10%	3.50%	3.50%	4.19%	57.00%	63.00%	57.00%	(\$0.00)	7.87%	23.00	5.49
13	NextEra Energy, Inc.	\$158.65	8.60%	9.79%	8.50%	8.96%	4.19%	55.00%	63.00%	55.00%	\$0.00	8.30%	18.69	4.46
14	NorthWestern Corporation	\$52.95	3.00%	3.16%	3.50%	3.22%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.87%	17.38	4.15
15	OGE Energy Corp.	\$32.61	6.00%	4.30%	6.00%	5.43%	4.19%	69.00%	71.00%	69.00%	\$0.00	9.63%	16.29	3.89
16	Otter Tail Corporation	\$43.41	NA	9.00%	7.50%	8.25%	4.19%	66.00%	60.00%	66.00%	\$0.00	8.82%	19.24	4.59
17	Pinnacle West Capital Corporation	\$77.79	4.50%	3.78%	5.00%	4.43%	4.19%	63.00%	63.00%	63.00%	\$0.00	8.60%	17.50	4.18
18	PNM Resources, Inc.	\$37.36	5.10%	4.30%	7.50%	5.63%	4.19%	53.00%	50.00%	53.00%	\$0.00	8.23%	19.19	4.58
19	Portland General Electric Company	\$40.54	2.80%	2.65%	4.00%	3.15%	4.19%	64.00%	63.00%	64.00%	\$0.00	8.42%	19.61	4.68
20	Southern Company	\$44.31	4.50%	2.72%	3.00%	3.41%	4.19%	80.00%	74.00%	80.00%	\$0.00	10.27%	13.86	3.31
21	WEC Energy Group, Inc.	\$61.59	4.10%	4.43%	7.00%	5.18%	4.19%	66.00%	64.00%	66.00%	\$0.00	8.49%	18.63	4.45
22	Xcel Energy Inc.	\$44.41	5.70%	5.89%	5.50%	5.70%	4.19%	62.00%	63.00%	62.00%	\$0.00	<u>8.55%</u>	17.86	4.26
23	Mean											8.70%		

Sources:

Exhibit RBH-3.

Blue Chip Financial Forecasts, December 1, 2018.

Entergy New Orleans, Inc.

Revised Hevert Multi-Stage Growth Discounted Cash Flow Model 180 Day Average Stock Price (Average EPS Growth Rate Estimate in First Stage)

Line	Company	Stock Price (1)	EPS Growth Rate Estimates				Long-Term Growth (6)	Payout Ratio			Iterative Solution		Terminal P/E Ratio (12)	Terminal PEG Ratio (13)
			Zacks (2)	First Call (3)	Value Line (4)	Average (5)		2018 (7)	2022 (8)	2028 (9)	Proof (10)	IRR (11)		
1	ALLETE, Inc.	\$74.39	6.00%	6.00%	5.00%	5.67%	4.19%	65.00%	64.00%	65.00%	(\$0.00)	8.01%	22.31	5.32
2	Alliant Energy Corporation	\$41.41	5.60%	5.85%	6.50%	5.98%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.32%	18.54	4.43
3	Ameren Corporation	\$58.05	6.50%	6.30%	7.50%	6.77%	4.19%	60.00%	59.00%	60.00%	\$0.00	8.34%	18.12	4.32
4	American Electric Power Company, Inc.	\$69.91	5.70%	5.79%	4.50%	5.33%	4.19%	67.00%	63.00%	67.00%	\$0.00	8.31%	17.25	4.12
5	Avangrid, Inc.	\$50.25	9.10%	10.40%	13.00%	10.83%	4.19%	76.00%	66.00%	76.00%	\$0.00	8.77%	20.46	4.88
6	Black Hills Corporation	\$57.41	4.10%	3.86%	5.00%	4.32%	4.19%	55.00%	60.00%	55.00%	\$0.00	8.43%	17.45	4.16
7	CMS Energy Corporation	\$45.84	6.40%	7.05%	7.00%	6.82%	4.19%	61.00%	61.00%	61.00%	\$0.00	8.30%	17.89	4.27
8	DTE Energy Company	\$105.75	5.30%	5.59%	7.00%	5.96%	4.19%	61.00%	60.00%	61.00%	\$0.00	8.44%	16.10	3.84
9	Duke Energy Corporation	\$80.74	4.70%	4.22%	5.50%	4.81%	4.19%	76.00%	80.00%	76.00%	\$0.00	8.61%	16.62	3.97
10	El Paso Electric	\$54.16	5.10%	5.20%	4.50%	4.93%	4.19%	57.00%	61.00%	57.00%	(\$0.00)	8.00%	23.03	5.50
11	Hawaiian Electric Industries, Inc.	\$34.70	7.10%	9.10%	3.50%	6.57%	4.19%	66.00%	59.00%	66.00%	\$0.00	8.35%	18.09	4.32
12	IDACORP, Inc.	\$89.13	3.90%	3.10%	3.50%	3.50%	4.19%	57.00%	63.00%	57.00%	(\$0.00)	7.67%	23.00	5.49
13	NextEra Energy, Inc.	\$156.22	8.60%	9.79%	8.50%	8.96%	4.19%	55.00%	63.00%	55.00%	\$0.00	8.45%	18.69	4.46
14	NorthWestern Corporation	\$55.80	3.00%	3.16%	3.50%	3.22%	4.19%	64.00%	64.00%	64.00%	\$0.00	8.35%	17.38	4.15
15	OGE Energy Corp.	\$33.47	6.00%	4.30%	6.00%	5.43%	4.19%	69.00%	71.00%	69.00%	\$0.00	9.36%	16.29	3.89
16	Otter Tail Corporation	\$44.07	NA	9.00%	7.50%	8.25%	4.19%	66.00%	60.00%	66.00%	\$0.00	8.67%	19.24	4.59
17	Pinnacle West Capital Corporation	\$81.85	4.50%	3.78%	5.00%	4.43%	4.19%	63.00%	63.00%	63.00%	\$0.00	8.10%	17.50	4.18
18	PNM Resources, Inc.	\$39.36	5.10%	4.30%	7.50%	5.63%	4.19%	53.00%	50.00%	53.00%	\$0.00	7.75%	19.19	4.58
19	Portland General Electric Company	\$43.26	2.80%	2.65%	4.00%	3.15%	4.19%	64.00%	63.00%	64.00%	\$0.00	7.79%	19.61	4.68
20	Southern Company	\$46.80	4.50%	2.72%	3.00%	3.41%	4.19%	80.00%	74.00%	80.00%	(\$0.00)	9.66%	13.86	3.31
21	WEC Energy Group, Inc.	\$63.81	4.10%	4.43%	7.00%	5.18%	4.19%	66.00%	64.00%	66.00%	\$0.00	8.15%	18.63	4.45
22	Xcel Energy Inc.	\$46.44	5.70%	5.89%	5.50%	5.70%	4.19%	62.00%	63.00%	62.00%	\$0.00	<u>8.11%</u>	17.86	4.26
23	Mean											8.36%		

Sources:

Exhibit RBH-3.

Blue Chip Financial Forecasts, December 1, 2018.

Entergy New Orleans, Inc.

Accuracy of Interest Rate Forecasts (Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data			Actual Yield in Projected Quarter	Projected Yield Higher (Lower) Than Actual Yield*
		Prior Quarter	Projected	Projected		
		Actual Yield (1)	Yield (2)	Quarter (3)		
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%
5	Dec-01	5.5%	5.7%	1Q, 03	5.0%	0.7%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.4%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%
26	Mar-07	4.7%	5.1%	2Q, 08	4.6%	0.5%
27	Jun-07	4.8%	5.1%	3Q, 08	4.5%	0.7%
28	Sep-07	5.0%	5.2%	4Q, 08	3.7%	1.5%
29	Dec-07	4.9%	4.8%	1Q, 09	3.5%	1.4%
30	Mar-08	4.6%	4.8%	2Q, 09	4.0%	0.8%
31	Jun-08	4.4%	4.9%	3Q, 09	4.3%	0.6%
32	Sep-08	4.6%	5.1%	4Q, 09	4.3%	0.8%
33	Dec-08	4.5%	4.6%	1Q, 10	4.6%	0.0%
34	Mar-09	3.7%	4.1%	2Q, 10	4.4%	-0.3%
35	Jun-09	3.5%	4.6%	3Q, 10	3.9%	0.8%
36	Sep-09	4.0%	5.0%	4Q, 10	4.2%	0.8%
37	Dec-09	4.3%	5.0%	1Q, 11	4.6%	0.4%
38	Mar-10	4.3%	5.2%	2Q, 11	4.3%	0.9%
39	Jun-10	4.6%	5.2%	3Q, 11	3.7%	1.5%
40	Sep-10	4.4%	4.7%	4Q, 11	3.0%	1.7%
41	Dec-10	3.9%	4.6%	1Q, 12	3.1%	1.5%
42	Mar-11	4.2%	5.1%	2Q, 12	2.9%	2.2%
43	Jun-11	4.6%	5.2%	3Q, 12	2.8%	2.5%
44	Sep-11	4.3%	4.2%	4Q, 12	2.9%	1.3%
45	Dec-11	3.7%	3.8%	1Q, 13	3.1%	0.7%
46	Mar-12	3.0%	3.8%	2Q, 13	3.2%	0.7%
47	Jun-12	3.1%	3.7%	3Q, 13	3.7%	0.0%
48	Sep-12	2.9%	3.4%	4Q, 13	3.8%	-0.4%
49	Dec-12	2.8%	3.4%	1Q, 14	3.7%	-0.3%
50	Mar-13	2.9%	3.6%	2Q, 14	3.4%	0.2%
51	Jun-13	3.1%	3.7%	3Q, 14	3.3%	0.4%
52	Sep-13	3.2%	4.2%	4Q, 14	3.0%	1.2%
53	Dec-13	3.7%	4.2%	1Q, 15	2.6%	1.7%
54	Mar-14	3.8%	4.4%	2Q, 15	2.9%	1.5%
55	Jun-14	3.7%	4.3%	3Q, 15	2.8%	1.5%
56	Sep-14	3.4%	4.3%	4Q, 15	3.0%	1.3%
57	Dec-14	3.3%	4.0%	1Q, 16	2.7%	1.3%
58	Mar-15	3.0%	3.7%	2Q, 16	2.6%	1.1%
59	Jun-15	2.6%	3.7%	3Q, 16	2.3%	1.4%
60	Sep-15	2.9%	3.8%	4Q, 16	2.8%	1.0%
61	Dec-15	2.8%	3.7%	1Q, 17	3.0%	0.7%
62	Mar-16	3.0%	3.5%	2Q, 17	2.9%	0.6%
63	Jun-16	2.7%	3.4%	3Q, 17	2.8%	0.6%
64	Sep-16	2.6%	3.1%	4Q, 17	2.8%	0.3%
65	Dec-16	2.3%	3.4%	1Q, 18	3.0%	0.4%
66	Mar-17	2.8%	3.7%	2Q, 18	3.1%	0.6%
67	Jun-17	3.0%	3.7%	3Q, 18	3.1%	0.6%
68	Sep-17	2.9%	3.6%	4Q, 18		
69	Oct-17	2.8%	3.6%	1Q, 19		
70	Nov-17	2.8%	3.6%	1Q, 19		
71	Dec-17	2.8%	3.6%	1Q, 19		
72	Jan-18	2.8%	3.6%	2Q, 19		
73	Feb-18	2.8%	3.6%	2Q, 19		
74	Mar-18	2.8%	3.7%	2Q, 19		
75	Apr-18	3.0%	3.8%	3Q, 19		
76	May-18	3.0%	3.8%	3Q, 19		
77	Jun-18	3.0%	3.8%	3Q, 19		
78	Jul-18	3.1%	3.8%	4Q, 19		
79	Aug-18	3.1%	3.7%	4Q, 19		
80	Sep-18	3.1%	3.7%	4Q, 19		
81	Oct-18	3.1%	3.6%	1Q, 20		
82	Nov-18	3.1%	3.7%	1Q, 20		
83	Dec-18	3.1%	3.7%	1Q, 20		
84	Jan-19	3.3%	3.6%	2Q, 20		

Source:

Blue Chip Financial Forecasts, Various Dates.

* Col. 2 - Col. 4.