April 22, 2019

Lora W. Johnson, CMC, LMMC
Clerk of Council
Room 1E09, City Hall
1300 Perdido Street
New Orleans, LA 70112

Re: Revised Application of Entergy New Orleans, LLC for a Change in Electric and Gas Rates Pursuant to Council Resolutions R-15-194 and R-17-504 and for Related Relief
Council Docket No. UD-18-07

Dear Ms. Johnson:

Pursuant to the Order issued in the captioned matter by Judge Gulin on April 16, 2017 (the Order”), on behalf of Entergy New Orleans, LLC (“ENO” or the Company), please find enclosed for your further handling an original and three copies of the Revised Rebuttal Testimony (and Public Version of the exhibits) of Robert B. Hevert. In accordance with the referenced Order, the revised testimony and exhibits reflect removal of that portion of the testimony related to the Empirical Capital Asset Pricing Model (“ECAPM”) and the Event Study as represented on Exhibit 1 to the Advisors’ Motion to Strike. An accompany CD shows a redlined version of the testimony as well as the re-numbered exhibits that result from removal of the excised testimony. Please file an original and two copies into the record in the above-referenced matter and return a date-stamped copy to our courier.

Please note that certain of the exhibits and/or work papers of the witness contain Highly Sensitive Protected Materials and are being provided via CD transmitted through UPS Overnight Mail to appropriate reviewing representatives generally in accordance with the terms of the Council’s Official Protective Order set forth in Resolution R-07-432 via electronic means. Additionally, due to time constraints, the Company will be also providing under separate cover at a later date (as soon as practicable) re-numbered work papers via CD that correspond to the changes made in connection with the excised testimony.
Ms. Lora W. Johnson, CMC, LMC
April 22, 2019
Page -2-

Should you have any questions regarding the above/attached, please do not hesitate to contact me. Thanking you in advance for your usual courtesies, I am

Sincerely,

Alyssa Maurice-Anderson

Enclosures

cc: Official Service List (via email only)
CERTIFICATE OF SERVICE

I hereby certify that I have this 22nd day of April, 2019, served the required number of copies of the foregoing pleading upon all other known parties of this proceeding individually and/or through their attorney of record or other duly designated individual, by: ☒ electronic mail, ☐ facsimile, ☒ hand delivery, and/or by depositing same with ☒ overnight mail carrier, or ☐ the United States Postal Service, postage prepaid.

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Myssa Maurice-Anderson
BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF
ENTERGY NEW ORLEANS, LLC
FOR A CHANGE IN ELECTRIC AND
GAS RATES PURSUANT TO COUNCIL
RESOLUTIONS R-15-194 AND R-17-504
AND FOR RELATED RELIEF

DOCKET NO. UD-18-07

REVISED REBUTTAL TESTIMONY
OF
ROBERT B. HEVERT

ON BEHALF OF
ENTERGY NEW ORLEANS, LLC

APRIL 2019
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I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS ADDRESS.
A. My name is Robert B. Hevert. I am employed by ScottMadden, Inc. as a Partner. My business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

Q2. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?
A. I am filing this testimony (referred to throughout as my “Rebuttal Testimony”) before the Council of the City of New Orleans (“City Council”) on behalf of Entergy New Orleans, LLC. (“ENO” or “Company”), a wholly owned subsidiary of Entergy Corporation (“Entergy”).

Q3. ARE YOU THE SAME ROBERT B. HEVERT WHO PREVIOUSLY SUBMITTED REVISED DIRECT TESTIMONY IN THIS PROCEEDING?
A. Yes, I am.

Q4. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
A. The purpose of my Rebuttal Testimony is to respond to the direct testimony of the following witnesses (collectively, “Opposing Witnesses”) as their testimonies relate to the Company’s Return on Equity (“ROE”):

- Messrs. James M. Proctor and Byron S. Watson, who testify on behalf of the Advisors to the City Council (“Advisors”, collectively “Advisors’ ROE Witnesses”);

- Mr. Christopher C. Walters, who testifies on behalf of Air Products and Chemicals, Inc. (“Air Products”); and
• Mr. Richard A. Baudino, who testifies on behalf of the Crescent City Power Users Group (“CCPUG”).

My Rebuttal Testimony also updates many of the analyses contained in my Revised Direct Testimony and provides several additional analyses developed in response to the Opposing Witnesses.

II. OVERVIEW OF TESTIMONY

Q5. PLEASE PROVIDE A SUMMARY OVERVIEW OF THE CONCLUSIONS AND RECOMMENDATIONS CONTAINED IN YOUR REBUTTAL TESTIMONY.

A. It is important to keep in mind that no one financial model is more reliable than others at all times and under all market conditions. At times, certain models’ assumptions become incompatible with market conditions, and their results do not make practical sense. Consequently, we cannot always take model results as given, and assume their results are reasonable measures of the Cost of Equity. Rather, we should apply reasoned judgment in vetting model assumptions, and in assessing the reasonableness of their results. That judgment may lead to the conclusion that the emphasis applied to a particular method in a prior proceeding or under different market conditions is not appropriate in the current instance.

Regarding the Company’s Cost of Equity, none of the analyses provided or positions taken by the Opposing Witnesses have caused me to revise my recommended range (10.25 percent to 11.25 percent), or my specific recommendation (10.75 percent). For example, certain of the Opposing Witnesses support their recommendations by reference to authorized ROEs, suggesting those returns have trended downward over time. If we consider individual cases over a relevant timeframe (rather than annual averages over
long periods), there is no downward trend. There certainly is no basis to conclude ROEs in the range of 8.93 percent to 9.35 percent are supported by returns authorized for other vertically integrated electric utilities. Looking to all model results, and considering the quantitative and qualitative data presented throughout my Rebuttal Testimony, I continue to recommend an ROE in the range of 10.25 percent to 11.25 percent, with a point estimate of 10.75 percent.

As to the Company’s capital structure, certain of the Opposing Witnesses recommend capitalization ratios that include more leverage (that is, contain more debt) than those in place at utility operating companies. They develop their recommendations based on reviews of parent company, not operating company capital structures. My Rebuttal Testimony explains that operating utilities’ financing requirements are heavily influenced by the nature of their operations, including the long-lived nature of the assets required to provide utility service, and the need to access capital regardless of market conditions. The relevant measure of industry practice, therefore, is the financing practice at the operating company level, not the consolidated parent company level. As my Rebuttal Testimony also explains, Mr. Watson’s proposed “double leverage” adjustment is not supported in theory or practice, and should not be considered in determining the Company’s ratemaking capital structure.

Q6. PLEASE NOW PROVIDE AN OVERVIEW OF YOUR RESPONSE TO THE ROE RECOMMENDATIONS MADE BY THE OPPOSING WITNESSES.

A. In this proceeding, the Opposing Witnesses give considerable weight to the Discounted Cash Flow (“DCF”) method, even though it produces ROE estimates in some cases more
than 150 basis points below the returns authorized for other electric utilities.\(^1\) For example, the Advisors’ ROE Witnesses’ recommendation of 8.93 percent is based on Mr. Watson’s DCF analysis.\(^2\) Mr. Walters set the low end of his recommended range (\textit{i.e.}, 9.00 percent) by reference to his DCF model results,\(^3\) and Mr. Baudino relies principally on his DCF results in arriving at his ROE recommendation.\(^4\) Table 1 (below) summarizes the Opposing Witnesses’ ROE recommendations.

**Table 1:**

**Summary of ROE Recommendations**

<table>
<thead>
<tr>
<th>WITNESS</th>
<th>ROE RANGE</th>
<th>ROE RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Watson (Advisors)</td>
<td>8.42%</td>
<td>8.93%</td>
</tr>
<tr>
<td>Mr. Proctor (Advisors)</td>
<td>8.42%</td>
<td>8.93%</td>
</tr>
<tr>
<td>Mr. Walters (Air Products)</td>
<td>9.00%</td>
<td>9.70%</td>
</tr>
<tr>
<td>Mr. Baudino (CCPUG)</td>
<td>8.70%</td>
<td>9.35%</td>
</tr>
<tr>
<td>Mr. Hevert (ENO)</td>
<td>10.25%</td>
<td>11.25%</td>
</tr>
</tbody>
</table>

Because the Opposing Witnesses give considerable weight to their DCF-based results, it is not surprising that their recommendations fall well below currently authorized returns. As Chart 1 (below) demonstrates, since 2014 the Constant Growth DCF model

\(^1\) For example, Mr. Watson’s median unadjusted two-step DCF ROE result is 8.09 percent, which is 170 basis points below the 9.79 percent average ROE authorized for vertically integrated electric utilities since 2014. See Direct Testimony of Byron S. Watson, at 44.

\(^2\) Direct Testimony of Byron S. Watson, at 44, 48–49; Direct Testimony of James M. Proctor, at 3.

\(^3\) Direct Testimony of Christopher C. Walters, at 49.

\(^4\) Direct Testimony of Richard A. Baudino, at 3.
has produced ROE estimates notably below the returns then authorized by regulatory commissions.

**Chart 1: Authorized ROEs vs. DCF Estimates**

Given their common dependence on the DCF method, it also is not surprising that the Opposing Witnesses’ recommendations generally fall within a narrow range. But the fact that their recommendations are similar does not mean their approaches and conclusions are reasonable. Even the highest of their recommendations (Mr. Walters’ and Mr. Baudino’s 9.35 percent ROE) is 44 basis points below the average return for vertically integrated electric utilities and is below all but eight ROEs authorized for vertically integrated electric utilities from 2014 through February 2019 (see Chart 2, below). The

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5 DCF results based on quarterly average stock prices, Earnings Per Share growth rates from Value Line, Zacks, and First Call; assumes Revised Proxy Group. Authorized ROEs are quarterly averages for vertically integrated electric utilities; source: S&P Global Market Intelligence. Please note that 2017 Q3 and 2016 Q2 included only one ROE decision.

6 The average authorized ROE for vertically integrated electric utilities (excluding limited issue riders) from January 1, 2014 to February 28, 2019 is 9.79 percent. 9.35 percent falls in the bottom 8th percentile of ROEs authorized for vertically integrated electric utilities since 2014.
Advisors’ ROE Witnesses 8.93 percent recommendation is below all authorized ROEs for a vertically integrated electric utility since at least 1980.

As discussed throughout the balance of my Rebuttal Testimony, the Opposing Witnesses’ recommendations cannot be supported by the reasonable application of financial models, nor can they be justified by current or expected market conditions. Rather, their recommendations are unduly low and if adopted, would increase ENO’s regulatory and financial risk, diminish its ability to compete for capital, and would increase ENO’s overall cost of capital, ultimately to the detriment of its customers.

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7 Source: Regulatory Research Associates (“RRA”). Authorized ROEs for vertically integrated utilities from January 2014 through February 2019. ROEs authorized for generation-only (i.e., “limited issue”) rate riders are excluded.
Q7. IS THE PRINCIPAL USE OF A SINGLE METHOD COMMON IN FINANCIAL
THEORY AND PRACTICE?

A. No, it is not. As Dr. Roger Morin notes:

Each methodology requires the exercise of considerable judgment on
the reasonableness of the assumptions underlying the methodology and
on the reasonableness of the proxies used to validate the theory. The
inability of the DCF model to account for changes in relative market
valuation, discussed below, is a vivid example of the potential
shortcomings of the DCF model when applied to a given company.
Similarly, the inability of the CAPM to account for variables that affect
security returns other than beta tarnishes its use.

No one individual method provides the necessary level of precision for
determining a fair return, but each method provides useful evidence to
facilitate the exercise of an informed judgment. Reliance on any single
method or preset formula is inappropriate when dealing with investor
expectations because of possible measurement difficulties and vagaries
in individual companies’ market data. 

Professor Eugene Brigham recommends the CAPM, DCF, and Bond Yield Plus Risk
Premium approaches:

Three methods typically are used: (1) the Capital Asset Pricing Model
(CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-
yield-plus-risk-premium approach. These methods are not mutually
exclusive – no method dominates the others, and all are subject to error
when used in practice. Therefore, when faced with the task of
estimating a company’s cost of equity, we generally use all three
methods and then choose among them on the basis of our confidence in
the data used for each in the specific case at hand.

Similarly, Dr. Morin (quoting, in part, Professor Stewart Myers), stated:

Use more than one model when you can. Because estimating the
opportunity cost of capital is difficult, only a fool throws away useful

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9 Ibid., at 430 – 431, citing Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice,
information. That means you should not use any one model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data.

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While it is certainly appropriate to use the DCF methodology to estimate the cost of equity, there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies. Sole reliance on the DCF model ignores the capital market evidence and financial theory formalized in the CAPM and other risk premium methods. The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity. It is not a superior methodology that supplants other financial theory and market evidence. The broad usage of the DCF methodology in regulatory proceedings in contrast to its virtual disappearance in academic textbooks does not make it superior to other methods. The same is true of the Risk Premium and CAPM methodologies.  

Q8. HAVE OTHER REGULATORY COMMISSIONS RECOGNIZED THE IMPORTANCE OF CONSIDERING MULTIPLE METHODS IN SETTING AUTHORIZED ROES?

A. Yes. For example, in Baltimore Gas and Electric Company’s 2016 rate case, the Maryland Public Service Commission discussed the importance of considering multiple analytical methods, given the complexity of determining the investor-required ROE:

The ROE witnesses used various analyses to estimate the appropriate return on equity […] including the DCF model, the IRR/DCF, the traditional CAPM, the ECAPM, and risk premium methodologies. Although the witnesses argued strongly over the correctness of their competing analyses, we are not willing to rule that there can be only one correct method for calculating an ROE. Neither will we eliminate any particular methodology as unworthy of basing a decision. The subject is far too complex to reduce to a single mathematical formula. That conclusion is made apparent, in practice, by the fact that the expert witnesses used discretion to eliminate outlier returns that they testified were too high or too low to be considered reasonable, even when using

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their own preferred methodologies.\textsuperscript{11} 

In its November 15, 2018 \textit{Order Directing Briefs}, the Federal Energy Regulatory Commission (“FERC”) found that “in light of current investor behavior and capital market conditions, relying on the DCF methodology alone will not produce a just and reasonable ROE”.\textsuperscript{12} In its October 16, 2018 \textit{Order Directing Briefs}, FERC found that although it “previously relied solely on the DCF model to produce the evidentiary zone of reasonableness…”, it is “…concerned that relying on that methodology alone will not produce just and reasonable results.”\textsuperscript{13} As FERC explained, it is important to understand “how investors analyze and compare their investment opportunities.”\textsuperscript{14} FERC also explained that, although certain investors may give some weight to the DCF approach, other investors “place greater weight on one or more of the other methods…”\textsuperscript{15} Those methods include the CAPM and the Risk Premium method, which I have applied in this proceeding.

\textsuperscript{11} \textit{In the matter of the application of Baltimore Gas and Electric Company for adjustments to its electric and gas base rates, Public Service Commission of Maryland}, Case No. 9406, Order No. 87591, at 153. Citations omitted.

\textsuperscript{12} Docket Nos. EL14-12-003 and EL15-45-000, \textit{Order Directing Briefs}, 165 FERC ¶ 61,118 (November 15, 2018) at para. 34.


\textsuperscript{14} \textit{Ibid.}, at para. 33.

\textsuperscript{15} \textit{Ibid.}, at para. 35.
Q. HAVE OTHER STATE REGULATORY COMMISSIONS EXPRESSED CONCERN WITH DCF MODEL RESULTS?

A. Yes. For example, in its July 2017 *Order Accepting Stipulation* in which it authorized a 9.90 percent ROE for Duke Energy Carolinas, the North Carolina Utilities Commission ("NCUC") noted it “carefully evaluated the DCF analysis recommendations” of the ROE witnesses (which ranged from 8.45 percent to 8.80 percent) and determined that “all of these DCF analyses in the current market produce unrealistically low results.”\(^{16}\) Notably, the range found by the NCUC to be “unrealistically low” generally overlaps Messrs. Proctor’s and Watson’s recommended range.

Q9. ARE THERE ASPECTS OF THE DCF MODEL THAT MAY EXPLAIN WHY REGULATORY COMMISSIONS CURRENTLY DO NOT RELY PRINCIPALLY ON IT WHEN DETERMINING THE COST OF EQUITY?

A. Yes, the model’s fundamental structure and underlying assumptions may become far removed from actual market conditions and financial practice. For example, the model assumes there will be no change, ever, in growth rates, dividend yields, Price/Earnings ratios, Market/Book ratios, or in the economic and market conditions that support those variables. Those assumptions, however, currently do not hold. For example, firms do not pay dividends at a constant dividend yield. Rather, continuous movements in stock prices, 

coupled with “sticky” dividend policies create continuous changes in dividend yields, contrary to the DCF model’s assumptions.

The model’s assumptions have become further removed from practice when current capital market conditions are influenced by monetary policy that is likely to change. Since the 2008/2009 financial crisis, Federal monetary policy has had a significant, intentional effect on capital markets, reducing interest rates and dampening equity market volatility. Those effects, however, will reverse with the “normalization” of monetary policy. Consequently, neither the Federal Reserve’s unconventional monetary policy initiatives nor the capital market conditions they supported will remain in place in perpetuity, as the Constant Growth DCF model requires. On that basis alone, we should be cautious about the weight given the DCF method.

Q10. ARE THERE STRUCTURAL REASONS WHY THE CONSTANT GROWTH DCF MODEL MAY NOT ALWAYS PROVIDE RELIABLE ROE ESTIMATES?

A. Yes, there are. As explained in my Revised Direct Testimony, the DCF model noted by the equation

17 As the Federal Reserve explains: “The global financial crisis that began in 2007 had profound effects on the U.S. economy and other economies around the world. To support a return to the Federal Reserve's statutory goals of maximum employment and price stability, the Federal Open Market Committee (“FOMC”) reduced short-term interest rates to nearly zero and held them at that exceptionally low level for seven years. The FOMC also undertook large-scale open-market purchases of longer-term U.S. Treasury securities and mortgage-backed securities to put downward pressure on longer-term interest rates. The term “normalization of monetary policy” refers to plans for returning both short-term interest rates and the Federal Reserve’s securities holdings to more normal levels.” See https://www.federalreserve.gov/faqs/what-does-federal-reserve-mean-when-it-talks-about-normalization-of-monetary-policy.htm.
is derived from the longer-form present value formula

\[ P_0 = \frac{D_1}{(1 + k)} + \frac{D_2}{(1 + k)^2} + \ldots + \frac{D_\infty}{(1 + k)^\infty}. \]

The model assumes investors use the present value structure to find the “intrinsic value” of common stock. Consequently, the DCF approach will not produce accurate estimates of the market-required ROE if the market price diverges from the present value-based estimate of intrinsic value. That concern is not academic; differences between market prices and intrinsic valuations may arise when investors take short-term trading positions to hedge risk (e.g., a “flight to safety”), to speculate (e.g., momentum trades), or as temporary position to increase current income (i.e., a “reach for yield”).

We also know investors consider other methods, including relative valuation multiples – Price/Earnings, Market/Book, Enterprise Value/EBITDA – in their buying and selling decisions. They do so because no single financial model produces the most accurate and reliable measure of value at all times and under all conditions. The implications of market prices diverging from DCF-based estimates of intrinsic value was studied in an article published in the *Journal of Applied Finance*. That article, which focused on back-tests of the Constant Growth DCF model, found that even under “ideal” circumstances:

\[ \ldots \text{it is difficult to obtain good intrinsic value estimates in models} \]

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18 As explained below, Mr. Watson’s “Two-Step” DCF model essentially is the Constant Growth model, using a weighted average growth rate.


20 Earnings Before Interest, Taxes, Depreciation, and Amortization.
stretching over lengthy periods of time. Shorter horizon models based on five or fewer years show more promise. Any model based on dividend streams of ten years or more, whether as a teaching tool or in practice, should be used with caution since they are likely to produce low-quality estimates.  

In short, because the DCF model is derived from a valuation model that assumes constancy in perpetuity, it is likely to produce less reliable ROE estimates when market conditions are non-constant, and when investor practice is to consider additional, alternative valuation methods. Both conditions currently hold.  

Q11. IS IT YOUR VIEW THAT THE DCF MODEL SHOULD BE GIVEN NO WEIGHT IN DETERMINING THE COMPANY’S COST OF EQUITY?  

A. No, it is not. It is my view, however, that we should carefully consider the range of results the model produces. As discussed later in my Rebuttal Testimony, doing so fully supports my ROE range and recommendation.  

Q12. HOW IS THE REMAINDER OF YOUR REBUTTAL TESTIMONY ORGANIZED?  

A. The remainder of my Rebuttal Testimony is organized as follows:

- **Section III** – Responds to the Advisors’ ROE Witnesses Mr. Proctor and Mr. Watson;
- **Section IV** – Responds to Air Products’ witness Mr. Walters;
- **Section V** – Responds to CCPUG Witness Mr. Baudino;
- **Section VI** – Summarizes my updated analytical results; and

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• Section VII – Provides my conclusions.

III. RESPONSE TO THE DIRECT TESTIMONIES OF MESSRS. PROCTOR AND WATSON REGARDING THE COMPANY’S COST OF EQUITY

Q13. PLEASE SUMMARIZE MESSRS. PROCTOR’S AND WATSON’S ROE ANALYSES AND RECOMMENDATIONS.

A. The Advisors’ ROE Witnesses recommend an ROE of 8.93 percent, based on Mr. Watson’s “Two-Step” DCF analysis, and supported by Mr. Proctor’s CAPM analysis. Mr. Watson’s “Two-Step” DCF analysis produces a mean result of 8.09 percent, to which he adds 84 basis points, reflecting Mr. Proctor’s “business risk” and flotation cost adjustment. In their view, 8.93 percent is reasonable, in large measure because it falls within the range of Mr. Proctor’s CAPM estimates.

Q14. WHAT ARE THE PRINCIPAL AREAS IN WHICH YOU DISAGREE WITH THE ADVISORS’ ROE WITNESSES’ ANALYSES AND CONCLUSIONS?

A. The principal areas in which I disagree with the Advisors’ ROE Witnesses include: (1) their principal reliance on a single method to estimate the Company’s Cost of Equity; (2) certain criteria used to select proxy companies; (3) Mr. Proctor’s CAPM analysis, and the conclusions he draws from it; (4) Mr. Watson’s Two-Step DCF analysis and the weight he gives to it; (5) the relevance of the Bond Yield Plus Risk Premium approach; and (6) the

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22 Direct Testimony of James M. Proctor, at 16.
23 Direct Testimony of Byron S. Watson, at 46–47.
24 Direct Testimony of James M. Proctor, at 16; Direct Testimony of Byron S. Watson, at 49.
effect of certain business risks and considerations, including the Tax Cuts and Jobs Act (“TCJA”), the proposed Formula Rate Plan, and the effect of flotation costs on the Company’s Cost of Equity. Beyond those methodological points, I strongly disagree that Messrs. Proctor’s and Watson’s ROE estimates, which range from 8.09 percent to 8.93 percent, are reasonable measures of the Company’s Cost of Equity, regardless of how those estimates were derived.

In addition, although Mr. Watson points to the FERC to support his proposed Two-Step DCF method, FERC also has found that because DCF-based methods have produced unreliable results, it is important to apply multiple methods in determining the ROE. Those methods include the CAPM, Bond Yield Plus Risk Premium, and Expected Earnings approaches. When those methods are properly applied, it becomes apparent Mr. Watson’s 8.09 percent (unadjusted) estimate, as well as his 8.93 percent recommendation, is unduly low.

Lastly, I strongly disagree with Mr. Watson’s proposed “double leverage” adjustment to the Company’s capital structure. As my Rebuttal Testimony explains, Mr. Watson’s proposal is internally inconsistent, counter to basic financial theory, removed from regulatory practice, and would have the counterproductive effect of increasing risks to investors and costs to ratepayers.

A. Unreasonableness of the Advisors’ ROE Witnesses’ Recommendation

Q15. AS A GENERAL MATTER, IS THE 8.09 PERCENT BASE ROE RECOMMENDATION, OR EVEN THE 8.93 PERCENT ADJUSTED
RECOMMENDATION, A REASONABLE ESTIMATE OF THE COMPANY’S COST OF EQUITY?

A. No, it is not. Putting aside the many methodological issues discussed below, there simply is no basis to conclude equity investors would be willing to commit their capital for the opportunity to earn an 8.93 percent “risk-adjusted” return. Mr. Watson’s unadjusted 8.09 percent ROE estimate is even less probable. Even their 8.93 percent “risk-adjusted” estimate is below every return authorized for a vertically integrated electric utility since at least 1980.25

The significant difference between the Advisors’ ROE Witnesses’ recommendation and the returns available to other utilities raises very practical concerns. The Company competes with other entities, including utilities, for the long-term capital needed to provide utility service. Given the choice between two similarly situated utilities, one with a return that falls far below industry levels, and another whose authorized return more closely aligns with those available to other utilities, investors will choose the latter. Because authorized returns are publicly available,26 it is reasonable to conclude that data is reflected, at least to some degree, in investors’ return expectations and requirements.

25 Source: S&P Global Market Intelligence. See Chart 2 above. I note that in UD-16-02, the Company’s application for approval to construct the New Orleans Power Station, the Advisors’ witness in that proceeding (Mr. Watson), noted that “9.75 percent is in line with ROEs recently set by retail regulators”. See Docket No. UD-16-02 Resolution and Order Regarding the Application of Entergy New Orleans, Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery, and Timely Relief, Resolution R-18-65, March 8, 2018, at 184.

Further, although they discuss credit ratings as a measure of business risk, the implications of an authorized return so far removed from industry norms are considerable. Putting aside the cash flow effects of an unduly low ROE, the increase in perceived regulatory and business risk would be significant. As Standard & Poor’s (“S&P”) explains, the regulatory regime is one of the most important factors in its rating analyses:

For a regulated utility company, the regulatory regime in which it operates will influence its performance in profound ways. As such, Standard & Poor’s Ratings Services’ regulatory advantage assessment - which informs both our business and financial risk scores - is one of the most important factors in our credit analysis of regulated utilities.27

As S&P also explains, regulatory advantage is “the most heavily weighted factor when S&P Global Ratings analyzes a regulated utility's business risk profile.”28 S&P further notes that:

The foundation of our opinion of a jurisdiction is the stability of its approach to regulating utilities, encompassing transparency, predictability, and consistency. Given the maturity of the U.S. investor-owned utility industry, the long history of utility regulation (going back to the early 20th century) and the well-established constitutional protections accorded to utility investments, we emphasize the principle of consistency when weighing regulatory stability. We also incorporate the degree to which the regulatory framework either explicitly or implicitly considers credit quality in its design.29

Among S&P’s principal considerations in assessing regulatory advantage is “regulatory stability”, which includes three subfactors:

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29 Ibid.
- Transparency of the key components of the rate setting and how these are assessed;
- Predictability that lowers uncertainty for the utility and its stakeholders; and
- Consistency in the regulatory framework over time.\(^{30}\)

In a similar fashion, Moody’s explains that its ratings are based on assessments of multiple factors, 50.00 percent of which relate to the nature of regulation. Even if we consider cash flow-related metrics, in aggregate those factors are given 40.00 percent weight (see Chart 3, below).

**Chart 3: Moody’s Ratings Criteria\(^{31}\)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislative and Judicial Underpinnings</td>
<td>12.5%</td>
</tr>
<tr>
<td>Consistency and Predictability</td>
<td>12.5%</td>
</tr>
<tr>
<td>Timeliness of Recovery</td>
<td>12.5%</td>
</tr>
<tr>
<td>Sufficiency of Rates and Returns</td>
<td>12.5%</td>
</tr>
<tr>
<td>Diversification</td>
<td>10.0%</td>
</tr>
<tr>
<td>Debt/Capitalization</td>
<td>7.5%</td>
</tr>
<tr>
<td>CFO pre-WC - WC/Debt</td>
<td>15.0%</td>
</tr>
<tr>
<td>CFO pre-WC - Dividends/Debt</td>
<td>10.0%</td>
</tr>
<tr>
<td>CFO pre-WC + Interest/Interest</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

In summary, although the Advisors’ ROE Witnesses discuss credit ratings as a measure of equity risk, they do not discuss the implications of their recommendations for the Company’s credit profile.\(^{32}\) In my view, if the City Council were to adopt the Advisors’

\(^{30}\) *Ibid.*


\(^{32}\) I address certain cash flow-related credit metrics later in my Rebuttal Testimony.
ROE Witnesses’ recommendation, investors would assess a heightened degree of regulatory risk, and would require higher returns for that risk, to the long-term detriment of customers. That is especially the case, and it is especially concerning, given the Company’s below investment grade rating from Moody’s.

Regardless of its derivation, I do not believe the Advisors’ ROE Witnesses’ 8.93 percent recommendation meets Hope and Bluefield “financial integrity”, “comparable risk”, “capital attraction” and “end result” standards.\(^\text{33}\) The Company’s below investment grade from Moody’s distinguishes it from others in Mr. Proctor’s (and, therefore, Mr. Watson’s) proxy group. If credit ratings were proper measures of equity risk, there would be no reasonable means of reconciling a below investment grade rating with an ROE so far below those available to other electric and natural gas utilities, as the Hope and Bluefield standards require.

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\(^{33}\) See Revised Direct Testimony Robert B. Hevert, at 8–11.
authorized by regulatory commissions. Chart 4 (below) replicates Chart 1 and includes the results of FERC’s two-step DCF method.

**Chart 4: Authorized ROEs vs Constant Growth and Two-Step DCF Estimates**

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Q17. **LASTLY, WHAT IS YOUR RESPONSE TO MR. PROCTOR’S OBSERVATION REGARDING THE RANGE OF YOUR ANALYTICAL RESULTS?**

A. Table No. 2 to Mr. Proctor’s testimony (at page 49) provides the results of my three methods, which run from a low of 8.37 percent to a high of 12.28 percent, a range of 391 basis points. Although Mr. Proctor is concerned with that variability, Mr. Watson’s “two-step” DCF results span from a low of 5.74 percent to a high of 10.64 percent, a range of 490 basis points. That is, the 391-basis point range that concerns Mr. Proctor is 99 basis points.

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34 DCF results based on quarterly average stock prices, Earnings Per Share growth rates from Value Line, Zacks, and First Call; assumes Revised Proxy Group. Authorized ROEs are quarterly averages for vertically integrated electric utilities; source: S&P Global Market Intelligence. Please note that 2017 Q3 and 2016 Q2 included only one ROE decision.

35 Exhibit No.__(BSW-4), Page 1.

36 Direct Testimony of James M. Proctor, at 48–49. Please note that Mr. Proctor’s Table No. 2 includes the results of my three analyses, whereas Mr. Watson’s wider range is attributable to a single method.
points less than Mr. Watson’s range. If my range of results is a “concern” for Mr. Proctor, it seems that concern would extend to Mr. Watson’s results.

C. Proxy Group Selection

Q18. BEFORE RESPONDING TO MR. WATSON’S DISCUSSION OF INDIVIDUAL PROXY COMPANIES, DOES THE DIFFERENCE IN YOUR RESPECTIVE PROXY GROUPS EXPLAIN THE DIFFERENCE IN YOUR ROE RECOMMENDATIONS?

A. No, it does not. Although the Advisors’ ROE Witnesses’ recommendation is unduly low, the composition of their proxy group is not the principal reason for that result. I also appreciate that analysts may have reasonable differences in screening criteria, and how those criteria are applied. Consequently, many of the analyses discussed below are based on the Advisors’ ROE Witnesses’ respective proxy groups.

That said, Messrs. Proctor and Watson bring up certain points, including their focus on credit ratings as a screening criterion and a direct measure of equity risk, that affect other aspects of their conclusions. In particular, they argue their recommendation is reasonable by reference to their proxy group’s average credit rating (BBB+). Their use of credit ratings in that fashion raises three concerns.

First, credit notches within the investment grade rating category are not direct measures of differences in equity risk. Second, if the Company is no less risky than its peers, as Mr. Proctor’s reference to S&P’s credit ratings suggests, there is no reason why its ROE should be 80 basis points (or more) below the returns available to other, similarly

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37 Direct Testimony of James M. Proctor, at 27–28; Direct Testimony of Byron S. Watson, at 26, Exhibit No.__(BSW-4), at page 5.
rated utilities. Not only would that result be contrary to the *Hope* and *Bluefield*
“comparable risk” standard, it would be inconsistent with the risk/return relationship
integral to the one method Mr. Proctor applied, the Capital Asset Pricing Model. Lastly,
the Company’s below investment grade rating from Moody’s (1) distinguishes it from all
other companies in Mr. Watson’s proxy group, (2) supports my approach to screening
proxy companies based on investment grade credit ratings, and (3) argues for an ROE
above, not significantly below, its peers.

Q19. **HOW DOES MR. WATSON USE CREDIT RATINGS AS A SCREENING CRITERION,**
AND **HOW DOES HIS APPROACH DIFFER FROM YOURS?**

A. Mr. Watson’s screening criteria require proxy companies to have an issuer credit rating
(from Standard & Poor’s) within one “notch” of the Company’s BBB+ rating.38 Mr. Watson suggests “…credit ratings, as generated by companies such as Moody’s Investors Service (“Moody’s”) and Standard & Poor’s Financial Services LLC Rating’s Direct (“S&P”) seek to score companies such as ENO and other utilities as to their risks on a consistent and comparable scale.”39 He concludes that “…when identifying companies having corresponding risks and uncertainties as has ENO, comparable issuer credit ratings are an appropriate metric for corresponding risks.”40

As Mr. Watson points out, my approach is different; I require proxy companies to have investment grade credit ratings, regardless of whether those ratings are within one

38 Direct Testimony of Byron S. Watson, at 26–27.
“notch” of the subject company. I do so for two reasons. First, utilities, including Mr. Watson’s proxy companies, tend to have high proportions of institutional ownership. In my experience, investment guidelines for institutional investors focus on investment grade entities, not entities within one notch of a given company. Because institutional investors own large percentages of utility equity securities, it is appropriate to reflect their investment criteria in our screening process.

Second, much like Mr. Watson, Mr. Proctor argues the credit rating screen “is appropriate because such screening will allow the Council useful information regarding the required returns on companies having comparable credit risks to that of ENO.” I disagree with the premise that differences in credit ratings are direct measures of differences in risks faced by equity investors. As discussed above, from an equity investor’s perspective the critical issue is whether the subject company is above or below investment grade.

Lastly, neither Mr. Proctor nor Mr. Watson adequately reflect the Company’s below investment grade credit rating (from Moody’s). Although Mr. Watson acknowledges the Bal rating Moody’s assigns the Company, he seems to discount its importance, noting that but for the Company’s “small and concentrated service territory in a low-lying coastal region”, the Company would have been rated “A2”.

Q20. WHY DO YOU BELIEVE DIFFERENCES IN INVESTMENT GRADE RATINGS ARE NOT DIRECT MEASURES OF EQUITY RISK?

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41 Source: Bloomberg Professional.
42 Direct Testimony of James M. Proctor, at 27.
43 Direct Testimony of Byron S. Watson, at 25.
A. First, credit ratings are opinions regarding the subject company’s capacity to pay its financial obligations as they come due and payable. As S&P notes:

An S&P Global Ratings issuer credit rating is a forward-looking opinion about an obligor’s overall creditworthiness. This opinion focuses on the obligor’s capacity and willingness to meet its financial commitments as they come due.\(^4\)

Credit ratings therefore speak to overall creditworthiness from the perspective of debtholders, who are promised a series of specified coupon payments over the term of the bond, and who have a contractual right to receive the bond’s par value at maturity. Equity investors receive no such promises; they hold a security that never matures, and receive no repayment of principal by the issuing firm. Moreover, the amount and timing of dividends are at the firm’s sole discretion. Equally important, equity investors are the residual claimant on the firm’s cash flows, with a liquidation preference subordinate to bondholders. Simply put, shareholders bear greater risk than do bondholders in the same firm. So, while credit ratings may be measures of the business and financial risks to which debt investors are exposed, they are not full measures of risks to equity investors, and we cannot draw firm inferences for one from the other.\(^5\)

Q21. HAVE YOU REVIEWED THE RELATIONSHIP BETWEEN MR. WATSON’S TWO-STEP DCF RESULTS AND CREDIT RATINGS FOR HIS PROXY COMPANIES?

\(^4\) https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352

\(^5\) This is a point Mr. Proctor seems to acknowledge at page 19 of his Direct Testimony: “An investor in corporate bonds takes on default risk and an investor in large company stocks takes on the full business and financial risk of the corporate enterprise.”
A. Yes, I have. If it is the case that one-notch differences in credit ratings are measures of differences in equity risk, those differences should be reflected in the DCF results. That is, companies with lower credit ratings should have higher DCF results; the converse also should be true. To test that relationship, I performed a regression analysis in which the dependent variable was the DCF result and the explanatory variable was the credit score (i.e., Mr. Watson’s “S&P Notches Below AAA” score46). The regression analysis showed no significant statistical relationship between the two. In fact, the R-squared of the regressions was only 0.03, which indicates that credit ratings accounted for, at most, 3.00 percent of the change in the DCF-estimated Cost of Equity.47

Q22. WHAT CONCLUSIONS DO YOU DRAW FROM THAT ANALYSIS?

A. Mr. Watson’s Two-Step DCF analysis results have no meaningful relationship to credit ratings, and do not support his position that differences in credit rating notches are measures of differences in the Cost of Equity. Equally important, the Two-Step DCF analysis do not reasonably reflect the incremental return required by equity investors for a below investment grade company, such as ENO.48

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46 Exhibit No.__(BSW-4), page 5 of 9.
47 I also considered the relationship between DCF results and credit ratings using Spearman’s Rank Correlation Coefficient, which is a non-parametric measure of the correlation between two series. The Spearman Rank Correlation Coefficient between DCF results and credit ratings was approximately -0.17, which is statistically insignificant at the 95.00 percent confidence level.
48 As discussed later in my Rebuttal Testimony, Mr. Proctor’s “business risk adjustment” is flawed for several reasons, among them his disregard of the significance of the Company’s below investment grade rating.
Q23. LASTLY, DO YOU HAVE ANY OBSERVATIONS REGARDING MR. WATSON’S REVIEW OF SPECIFIC PROXY COMPANIES?

A. Yes, I do. Although I appreciate there may be reasonable differences in screening methods, there are fact-specific points I would like to address. For example, Mr. Watson suggests I should have included Unitil, Inc., because it is included in Value Line’s Electric Utility (East) universe, and because I have testified on behalf of Unitil companies in other rate proceedings. As to Mr. Watson’s first point, although Value Line does include Unitil in its Electric Utility universe, it does not provide projected Earnings Per Share growth rates for Unitil, which are used in my DCF analyses. Regarding his second point, the fact that I have testified on behalf of Unitil in other cases has no bearing on whether I consider it an appropriate proxy in this case. In each case, I develop the proxy group by reference to the subject company, not by reference to companies on whose behalf I have submitted testimony. The same applies to Mr. Watson’s observation that I have testified on behalf of FortisAlberta in a hearing before the Alberta Utility Commission—it has no bearing on how I would select a proxy group in this proceeding.

Mr. Watson’s observations regarding Public Service Enterprise Group (“PSEG”) is an example of how we consider the same data source, but arrive at different conclusions. Mr. Watson does not seem to disagree that PSEG’s Power segment reported operating income of negative $359 million in 2017, but positive operating income of $13 million, and $1.43 billion in 2016 and 2015, respectively. It is that variation in operating income

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49 Direct Testimony of Byron S. Watson, at 32–33.

50 Ibid., at 32.

51 Public Service Electric & Gas Company, SEC Form 10-K for the fiscal year ended December 31, 2017, at
that requires consideration in determining whether the company is a suitable proxy. In my view, it is important to consider whether a single year’s negative unregulated operating income (which increases the portion of regulated operating income) reasonably represents investors’ views of the segment’s long-term prospects. That is an area in which my judgment differs from Mr. Watson’s. I do not believe the analysis necessarily lends itself to the “formulaic application” of criteria, as Mr. Watson suggests.\(^\text{52}\)

Further, the fact that PSEG’s Power segment was formed in response to regulatory restructuring in New Jersey does not change the fact that it “integrates the operations of its merchant nuclear and fossil generating assets with its power marketing businesses and fuel supply functions through competitive energy sales in well-developed energy markets.”\(^\text{53}\)

It is a merchant (unregulated) segment and should be considered as such.\(^\text{54}\)

Lastly, I disagree with Mr. Watson that Avangrid, Inc. (“Avangrid”) should be excluded from the proxy group. Avangrid meets my all my screening criteria. It also meets

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\(^{52}\) Direct Testimony of Byron S. Watson, at 35.

\(^{53}\) Public Service Electric & Gas Company, SEC Form 10-K for the fiscal year ended December 31, 2017, at 1.

\(^{54}\) Lastly, although Mr. Watson notes the company’s DCF result is above the median, I do not add or remove proxy companies based on how they might affect the median results. See Direct Testimony of Byron S. Watson, at 35.
all Mr. Watson’s screening criteria. Further, Avangrid’s risk measures, as reported by Value Line, are comparable to the companies in my and Mr. Watson’s proxy groups. 

Avangrid is a publicly traded company with two business segments: (1) Avangrid Networks, which represents the U.S. regulated electric and natural gas utility operations that serve 3.20 million customers in New York and New England; and (2) Avangrid Renewables, which owns and operates renewable electricity capacity across 22 states. The regulated utility operations of Avangrid Networks account for 83.00 percent of Avangrid’s 2017 operating revenues, and more than 100.00 percent of its net income. Consequently, Avangrid’s regulated operations represent a vast majority of total company operations. Although its ultimate parent Iberdrola, S.A. (“Iberdrola”), owns approximately 81.60 percent of the outstanding common stock, Avangrid’s stock price reflects the risks associated with Avangrid’s operations, not Iberdrola’s. For these reasons, I believe it is reasonable to include Avangrid in the proxy group.

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55 See Direct Testimony of Byron S. Watson, at 24–25. Although Mr. Watson discusses a low-end “economic logic” screen (i.e., that the two-step DCF result is at least 100 basis points greater than the investment grade corporate bond yield), Avangrid’s two-step DCF result is also within FERC’s “high-end” outlier screen, in which the two-step DCF result is more than 150.00 percent of the proxy group median. See Docket No. EL11-66-001, et al., Order Directing Briefs, 165 FERC ¶ 61,030 (October 16, 2018) at P 53; Docket No. EL14-12-0031, et al., Order Directing Briefs, 165 FERC ¶ 61,118 (November 15, 2018) at P 54. 


57 Avangrid is the merged company of Iberdrola USA (formerly Energy East Corporation) and UIL Holdings Corporation. Energy East Corporation and UIL were publicly traded companies on the New York Stock Exchange. See Avangrid, Inc. SEC Form 10-K for the Year Ended December 31, 2017, at 6, 8.


D. Capital Asset Pricing Model

Q24. PLEASE SUMMARIZE MR. PROCTOR’S CAPM ANALYSES.

A. Mr. Proctor provides two CAPM analyses, which vary based on his assumed risk-free rate. In each case, he begins with the long-term arithmetic average return on large capitalization stocks, as reported by Duff & Phelps. Mr. Proctor’s calculations, which produce CAPM estimates of 6.68 percent and 7.57 percent, are presented in Table 2, below.

Table 2: Mr. Proctor’s CAPM Estimates

<table>
<thead>
<tr>
<th>Arithmetric Mean</th>
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<tbody>
<tr>
<td>Large-Cap Stocks</td>
</tr>
<tr>
<td>Long-term Gov’t Bonds</td>
</tr>
<tr>
<td>U.S. Treasury Bills</td>
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<td>Beta Coefficient</td>
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<tr>
<td>Equity Risk Premium</td>
</tr>
<tr>
<td>Risk-Free Rate</td>
</tr>
<tr>
<td>Return on Equity</td>
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</tbody>
</table>

As Table 2 indicates, Mr. Proctor’s analyses reflect two estimates of the risk-free rate: 3.06 percent (the current 30-year Treasury Bond yield), and 2.41 percent (the current 13-week Treasury Bill yield).

Q25. ARE THE 6.68 PERCENT AND 7.57 PERCENT ESTIMATES MR. PROCTOR’S EVENTUAL CAPM RECOMMENDATION?

A. No, they are not. As discussed below, Mr. Proctor focuses on the 7.57 percent result, which is based on the short-term Treasury Bill rate. To that, he adds 84 basis points to reflect

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60 Exhibit No._(JMP-5), Exhibit No._(JMP-6). See also, Duff & Phelps, 2018 SBBI Yearbook, at 6-17.
incremental business risks (81 basis points), and the effect of common stock flotation costs
(three basis points).

Reasonableness of Mr. Proctor’s CAPM Result

Q26. BEFORE DISCUSSING YOUR METHODOLOGICAL CONCERNS WITH MR. PROCTOR’S APPROACH, DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING HIS CAPM ESTIMATES?

A. Yes, I do. In Table No. 1 (page 19) of his Testimony, Mr. Proctor provides “Summary Statistics of Annual Total Returns” from 1960 through 2017 for several asset classes, including large (capitalization) stocks, long-term Government bonds, intermediate-term Government bonds, and U.S. Treasury bills. He presents the arithmetic mean and standard deviation of annual returns for each, referring to the standard deviation as the “best measure of risk”.  

Plotting Mr. Proctor’s data in risk/return space, we see a very strong relationship between the two. In fact, the standard deviation explains about 97.50 percent of the change in the annual (arithmetic) average return (the $R^2$ is about 0.975; see, Chart 5, below). We can use that relationship to assess the reasonableness of Mr. Proctor’s CAPM estimates in the following manner. First, based on Mr. Proctor’s proposition that historical risks and returns are the best measure of expected risks and returns, we can assume the regression

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61 Direct Testimony of James M. Proctor, at 18.
62 That is, the standard deviation explains about 97.50 percent of the change in the annual (arithmetic) average return.
63 See Direct Testimony of James M. Proctor, at 17–18.
line in Chart 5 expresses the market’s expectations of both. Under that construct, any return falling below the line does not sufficiently compensate investors for expected risk (it is considered “inefficient”). At issue, therefore, is where Mr. Proctor’s CAPM results fall in the risk/return space his data provides.

To make that determination, I began with Mr. Proctor’s observation that the Company’s S&P credit rating (BBB+) “falls within the range of [the] proxy group.” Based on data provided by S&P Global Market Intelligence, I found the average S&P issuer credit rating within the utility sector (including electric and gas utilities) currently is BBB+. It therefore follows that Mr. Proctor’s CAPM estimates would apply to the broad utility sector. To pair Mr. Proctor’s CAPM estimates with the standard deviation of returns, I calculated the standard deviation of annual total return on the Dow Jones Utility average from 1928 through 2018, which I found to be about 20.60 percent (see, Chart 5, below).

Combining that standard deviation with Mr. Proctor’s CAPM results makes clear his estimates are too low to be reasonable. A rational investor would not accept a return so far below those expected of comparable-risk assets. Taking the analysis a step further, if the market is efficient, the return on utility investments would have to increase well above Mr. Proctor’s recommended levels to make them reasonable alternatives. The higher

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64 Ibid., at 27.
65 Source: S&P Global Market Intelligence.
66 Notably, the standard deviation of returns – which Mr. Proctor asserts is “the best measure of risk” – for the Dow Jones Utility Index (20.60 percent) is above the long-term average standard deviation for large capitalization stocks (19.80 percent). By Mr. Proctor’s logic, utility stocks are arguably “riskier” than large stocks. Source: Bloomberg Professional, Duff & Phelps 2018 SBBI Yearbook, at 6-17 (see also, Mr. Proctor’s Table No. 1).
return would require a lower market price, a disadvantageous result for utilities requiring continuing and efficient access to capital markets.

**Chart 5: Mr. Proctor’s CAPM Estimate in Risk/Return Space**

As Chart 5 demonstrates, Mr. Proctor’s CAPM estimates, even adjusted for “business risk”, fall far below the line indicating the historical risk/return relationship. His estimates therefore provide too little return in exchange for taking on too much risk; it is “dominated” by more efficient alternatives.

9. **Risk-Free Rate of Return**

Q27. WHY DO YOU DISAGREE WITH MR. PROCTOR’S USE OF THE 13-WEEK TREASURY BILL YIELD AS A MEASURE OF THE RISK-FREE RATE?

A. As explained in my Revised Direct Testimony, the security used as the risk-free rate should match the life of the underlying investment, and referred to utility stocks as “long-duration

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67 Source: Direct Testimony of James M. Proctor at 19, Table No. 1; Bloomberg Professional.
investments”. Mr. Proctor disagrees with that approach, and did not consider his CAPM results based on the 30-year Treasury yield.

Q28. ON WHAT BASIS DOES MR. PROCTOR PREFER THE 13-WEEK TREASURY BILL OVER THE 30-YEAR TREASURY BOND?

A. Mr. Proctor argues the longer-term (30-year) security should not be used because:

Treasury bills are about as safe and risk-free an investment as one can find. There is virtually no perceived risk of nominal default and due to their short-term they exhibit less price volatility. The only real risk for treasury bills relates to inflation risk. Longer term government bond prices fluctuate more than T-Bills as interest rates vary. The longer the term for government bonds the greater the risk and variability in its total returns due to the interest rate risks. Longer term government bonds are also subject to inflationary risks.69

Mr. Proctor therefore seems to prefer the shorter-term security, largely because it is less susceptible to inflation risk.

As to utility equity representing a long-duration investment, Mr. Proctor believes my position simply is “wrong”.70 He argues that “[u]nlike for a bond, investments in an electric utility’s common equity do not have stated maturity dates”, and that “[a]n investor in an electric utility may hold its investment for 5 minutes, 30 years, or any time frame in between.”71

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68 Revised Direct Testimony of Robert B. Hevert, at 32.
69 Direct Testimony of James M. Proctor, at 19.
70 Ibid., at 52.
71 Ibid., at 52.
Q29. DO YOU AGREE WITH MR. PROCTOR ON THAT POINT?

A. No, I do not. The proper tenor of the risk-free rate depends on the duration of the underlying security, not a given investor’s holding period. That position is well-established and widely applied. As noted by Morningstar, the source on which Mr. Proctor relies for the Market Risk Premium component of the CAPM:

The traditional thinking regarding the time horizon of the chosen Treasury security is that it should match the time horizon of whatever is being valued. When valuing a business that is being treated as a going concern, the appropriate Treasury yield should be that of a long-term Treasury bond. Note that the horizon is a function of the investment, not the investor. If an investor plans to hold stock in a company for only five years, the yield on a five-year Treasury note would not be appropriate since the company will continue to exist beyond those five years.

Pratt and Grabowski recommend a similar approach to selecting the risk-free rate:

“[i]n theory, when determining the risk-free rate and the matching [Equity Risk Premium] you should be matching the risk-free security and the [Equity Risk Premium] with the period in which the investment cash flows are expected.”

The Chartered Financial Analyst program likewise notes the risk-free rate used in the CAPM should match the timing of the expected asset’s cash flows:

A risk-free asset is defined here as an asset that has no default risk. A common proxy for the risk-free rate is the yield on a default-free government debt instrument. In general, the selection of the appropriate risk-free rate should be guided by the duration of projected cash flows.

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72 Revised Direct Testimony of Robert B. Hevert, at 32.
73 Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 44. [emphasis added]
74 Shannon Pratt and Roger Grabowski, Cost of Capital: Applications and Examples, 3rd Ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2008), at 92. [clarification added]
If we are evaluating a project with an estimated useful life of 10 years, we may want to use the rate on the 10-year Treasury bond.\textsuperscript{75}

As these sources agree, it is the duration of cash flows, not the investor’s holding period, that determines the proper risk-free rate.

Q30. PLEASE EXPLAIN THE TERM “DURATION” AND HOW IT IS USED IN PRACTICE.

A. In finance, “duration” (whether for bonds or equity) typically refers to the present value weighted time to receive a given security’s cash flows. In terms of its practical application, duration is a measure of the percentage change in the market price of a given stock in response to a change in the implied long-term return of that stock. A common investment strategy is to “immunize” the portfolio by matching the duration of investments with the term of the underlying asset in which the funds are invested, or the term of a liability being funded.

Using Mr. Watson’s Two-Step DCF method, I was able to calculate the equity duration of the companies in his proxy group. As demonstrated in ENO Exhibit RBH-22, the mean and median equity duration for Mr. Watson’s proxy group is about 30 years. Although the current duration of 30-year Treasury bonds is 20 years,\textsuperscript{76} it provides the longest available duration and, therefore, is the proper security for his CAPM analyses. I therefore continue to believe it is appropriate to use the long-term (\textit{i.e.}, 30-year) Treasury yield as the measure of the risk-free rate.

\textsuperscript{75} 2011 CFA Curriculum Level I, Volume 4 at 52.

\textsuperscript{76} See ENO Exhibit RBH-23.
Q31. DO MR. PROCTOR’S OBSERVATIONS REGARDING INTEREST RATE AND INFLATION RISK CHANGE YOUR POSITION?

A. No, they do not. If Mr. Proctor is concerned with those risks, he should use the shortest-term Treasury security, the four-week Treasury bill, as the risk-free security. Because he does not, Mr. Proctor may consider the issue as a matter of degree, recommending the 13-week Treasury yield simply because it is a shorter-term security than the 30-year bond. As discussed above, however, the relevant perspective is duration matching, not the maturity of a given Treasury security in isolation.

Q32. PUTTING ASIDE THE ISSUE OF EQUITY DURATION, DOES MR. WATSON’S DCF MODEL RECOGNIZE THE PERPETUAL NATURE OF EQUITY?

A. Yes, it does. As Mr. Watson correctly observes, his DCF model assumes an infinite horizon. If it did not, the model would produce implausibly low results. As shown in ENO Exhibit RBH-24, for example, an assumed holding period of five years produces mean and median ROE estimates of about negative 38.00 percent; a ten-year holding period produces an expected ROE of about negative 12.70 percent. The only way Mr. Watson’s DCF results can be realized is if the shares were sold at the end of those holding periods, and the prices at which they are sold reflect cash flows in perpetuity (see, ENO Exhibit RBH-25). The risk-free rate therefore should reflect the perpetual nature of equity. Again,

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77 See, https://www.federalreserve.gov/releases/h15/
78 Direct Testimony Byron S. Watson, at 14–15.
because the longest-dated Treasury security is 30 years, that is the appropriate term for this purpose.

**Market Risk Premium**

Q33. PLEASE BRIEFLY SUMMARIZE HOW MR. PROCTOR ESTIMATED THE EXPECTED MARKET RISK PREMIUM.

A. Mr. Proctor’s two Market Risk Premium estimates begin with the long-term arithmetic average return on large capitalization stocks, as provided by Duff & Phelps, from which he subtracts the total return on long-term Government securities, and the 13-week Treasury Bill yield.  

Q34. DO YOU AGREE WITH MR. PROCTOR’S USE OF HISTORICAL ESTIMATES OF THE MARKET RISK PREMIUM?

A. No, I do not. The Market Risk Premium represents the additional return required by equity investors to assume the risks of owning the “market portfolio” of equity relative to long-term Treasury securities. As with other elements of Cost of Equity analyses, the Market Risk Premium is meant to be a forward-looking parameter. Relying on a Market Risk Premium calculated using historical returns may produce results that are inconsistent with investor sentiment and current conditions in capital markets. The fundamental analytical issue in applying the CAPM is to ensure that all three components of the model (i.e., the

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79 Direct Testimony of James M. Proctor, at 18; Exhibit No.__(JMP-5), Exhibit No.__(JMP-6).
risk-free rate, Beta, and the Market Risk Premium) are consistent with market conditions and investor expectations. As, Morningstar observes:

It is important to note that the expected equity risk premium, as it is used in discount rates and cost of capital analysis, is a forward-looking concept. That is, the equity risk premium that is used in the discount rate should be reflective of what investors think the risk premium will be going forward.\textsuperscript{80}

I also disagree with Mr. Proctor’s view that the Market Risk Premium is static over time and across capital market environments.\textsuperscript{81} Longstanding financial research has shown the Market Risk Premium to vary over time and with market conditions. French, Schwert, and Stambaugh, for example, found the Market Risk Premium to be positively related to predictable market volatility.\textsuperscript{82} Using forward-looking measures of the expected market return, Harris and Marston found “…strong evidence…that market risk premia change over time and, as a result, use of a constant historical average risk premium is not likely to mirror changes in investor return requirements.”\textsuperscript{83} Among their findings is that the Market Risk Premium is inversely related to Government bond yields. That is, as interest rates fall, the Market Risk Premium increases. Unlike Mr. Proctor’s position, financial researchers have found the Market Risk Premium to be time-varying, and a function of economic parameters including interest rates.\textsuperscript{84}

\textsuperscript{80} Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 53.

\textsuperscript{81} At page 54 of his Direct Testimony, Mr. Proctor states “More importantly, I have not seen where mathematicians have found mathematically reliable evidence that the expected MRP has changed over time.”


\textsuperscript{84} As explained in my Revised Direct Testimony at 36–37, there is a similar negative relationship between
Q35. WHAT DO YOU CONCLUDE FROM THOSE ANALYSES?

A. The principal conclusion is that the Market Risk Premium is not static, but changes over time and inversely to the level of Treasury yields. That finding is important, if only because the current Treasury yield remains below the 6.00 percent yield that underlies Mr. Proctor’s Market Risk Premium calculation (based on 30-year yields).

Q36. DO YOU AGREE WITH MR. PROCTOR’S USE OF THE TOTAL RETURN ON LONG-TERM GOVERNMENT BONDS IN CALCULATING THE MARKET RISK PREMIUM?

A. No, I do not. As Duff & Phelps points out, the total return on a security is composed of three components: (1) the income return; (2) capital gains (or capital losses, if the value of the security falls); and (3) reinvestment return. The income return is generally defined as the coupon, or interest rate on the security, which does not change over the life of the security. In contrast, the value of the security rises or falls as interest rates change, resulting in uncertain capital gains. Because the income return is the only “riskless” component of the total return, it is the measure that should be used in calculating the Market Risk Premium.

interest rates and the Equity Risk Premium.

Q37. LASTLY, MR. PROCTOR BELIEVES YOUR FORWARD-LOOKING MARKET RISK PREMIUM ESTIMATE IS TOO HIGH, LARGELY BECAUSE IT IS GREATER THAN HISTORICAL EXPERIENCE.\(^\text{86}\) WHAT IS YOUR RESPONSE TO MR. PROCTOR ON THAT POINT?

A. I disagree. First, as explained above, contrary to Mr. Proctor’s view, longstanding published research has shown the Market Risk Premium to be time-varying, and a function of variables such as expected volatility, and interest rates. Mr. Proctor’s position that an expected Market Return, or Market Risk Premium, should only be assessed by reference to historical data is misplaced.\(^\text{87}\) That aside, as discussed in my response to Mr. Walters, my market risk premium estimates are consistent with historical observations and have occurred roughly half the time (see Chart 21, below) between 1926 and 2017.\(^\text{88}\)

Second, the method I applied to estimate the expected market return is consistent with academic research, for example, by Harris and Marston.\(^\text{89}\) It is a reasonable method, used by finance researchers to understand the factors affecting the Market Risk Premium.

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\(^\text{86}\) Direct Testimony of James M. Proctor, at 55–56.

\(^\text{87}\) If the long-term arithmetic average is the best measure of an expected return, it would be important to review the long-term average authorized ROE for electric utilities which, based on ENO Exhibit RBH-7 (to my Revised Direct Testimony) is 12.63 percent.

\(^\text{88}\) See ENO Exhibit RBH-31.

Constancy of Beta Coefficients

Q38. AT PAGE 33 OF HIS TESTIMONY MR. PROCTOR REFERS TO CHANGES IN BETA COEFFICIENTS, ARGUING THAT THOSE CHANGES PROVIDE “ADDITIONAL EVIDENCE BUSINESS RISK IS DECREASING.” WHAT IS YOUR RESPONSE TO MR. PROCTOR ON THAT POINT?

A. I agree with Mr. Proctor’s observation, but disagree with the conclusion he draws from it. As discussed in my Revised Direct Testimony, Beta coefficients reflect two components: (1) the volatility of the subject company’s returns relative to the overall market’s return volatility, and (2) the correlation in returns between the subject company and the overall market. Looking at those individual parameters, since 2013 the correlation between Mr. Proctor’s proxy group and the S&P 500 has declined, but the relative volatility has increased (see, Chart 6, below).

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90 Revised Direct Testimony of Robert B. Hevert, at 31.
Q39. WHAT CONCLUSIONS DO YOU DRAW FROM THAT DATA?

A. In reviewing historical market data, Mr. Proctor observes that “[e]conomic and financial literature and experts consider the standard deviation of returns on investment to be the best measure of risk.” By that standard, risk for utility investors has been increasing relative to the overall market (that is, relative volatility has increased). As Chart 6 demonstrates, the downward movement in Beta coefficients is related to the decrease in correlation coefficients, not a decrease in the relative volatility of utility returns.

At issue, then is why correlations have fallen, and whether we should view that change as a measure of investors’ long-term expectations. As noted earlier, beginning in 2012 the Federal Reserve began its third round of Quantitative Easing, which was meant to put downward pressure on long-term interest rates. The effect of that policy may have

91 Source: S&P Global Market Intelligence. Calculated as an index.
92 Direct Testimony of James M. Proctor, at 18.
been to encourage investors, at times, to “reach for yield” by investing in dividend-paying sectors, such as utilities. When macroeconomic conditions evolved such that interest rates began to increase or other growth-based sectors appeared more appealing, investors rotated out of the utility sectors.

Similarly, because (as discussed in my Revised Direct Testimony)\textsuperscript{93} utilities faced downward credit pressure due to the TCJA, and because they could not benefit from the TCJA in ways other sectors could, utilities became relatively less attractive. In short, since 2012 federal policies affected trading decisions in ways that have caused the utility sector’s correlation with the overall market to fall, causing the decline in Beta coefficients Mr. Proctor observes. As discussed in my Revised Direct Testimony, those policies now are being “normalized”\textsuperscript{94}.

The question is whether the currently low Beta coefficients adequately reflect expected systematic risk and, therefore, required returns. As discussed below, published research has found low-Beta coefficient companies (such as utilities) have tended to earn returns greater than those predicted by the CAPM. Consequently, the relatively low Beta coefficients Mr. Proctor observes likely under-estimate investors’ return requirements.

E. Discounted Cash Flow Analyses

Q40. PLEASE BRIEFLY DESCRIBE MR. WATSON’S CONSTANT GROWTH DCF ANALYSIS AND RESULTS.

\textsuperscript{93} Revised Direct Testimony of Robert B. Hevert, at 61.

\textsuperscript{94} \textit{Ibid.}, at 72.
A. Mr. Watson calculates an average dividend yield of 3.38 percent by dividing each proxy company’s annualized dividend by its monthly average stock price for the six-month period ending December 2018. For the expected growth rate, Mr. Watson relies on Earnings Per Share growth rate projections from Thomson Reuters. Based on those estimates, Mr. Watson calculates a Constant Growth DCF-based range of 5.13 percent to 12.11 percent, with mean and median results of 8.60 percent and 8.16 percent, respectively.

Q41. WHAT CONCERNS DOES MR. WATSON RAISE REGARDING THE CONSTANT GROWTH DCF METHOD?

A. Mr. Watson summarizes his concern by observing “trees don’t grow to the sky”. He argues that any company whose expected growth rate exceeds expected GDP growth eventually will swallow the entire economy. In the context of the Constant Growth DCF model, however, the relevant question is whether the assumed growth rate is fundamentally and empirically related to stock valuation levels. As discussed in my Revised Direct Testimony, that is the case for expected earnings growth rates. Nonetheless, Mr. Watson addresses his concern by applying the Two-Step DCF method.

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95 Exhibit No.__(BSW-4), at 2. 3.38 percent represents the average dividend yield of Mr. Watson’s final proxy group.
96 Exhibit No.__(BSW-4), at 2.
97 Exhibit No.__(BSW-4), at 1.
98 Direct Testimony of Byron S. Watson, at 14.
99 Revised Direct Testimony of Robert B. Hevert, at 19–21.
Q42. PLEASE SUMMARIZE MR. WATSON’S TWO-STEP DISCOUNTED CASH FLOW MODEL.

A. Mr. Watson’s Two-Step method is based on the approach used by the FERC, which applies weights of two-thirds and one-third, respectively, to analysts’ earnings growth rate projections, and projected growth in nominal Gross Domestic Product (“GDP”). As with FERC’s approach, Mr. Watson’s long-term growth rate of 4.42 percent is taken from three sources: (1) the Energy Information Administration (“EIA”), (2) the Social Security Administration (“SSA”), and (3) IHS Global Insights. Based on those inputs, Mr. Watson produces ROE estimates ranging from 5.74 percent to 10.64 percent, with mean and median estimates of 8.33 percent and 8.09 percent, respectively. Mr. Watson relies on the 8.09 percent median result as his (unadjusted) ROE recommendation.

Q43. AT PAGES 20 AND 21 OF HIS DIRECT TESTIMONY, MR. WATSON IS CRITICAL OF THE LONG-TERM GDP GROWTH RATE ASSUMED IN YOUR MULTI-STAGE DCF ANALYSIS. WHAT IS YOUR RESPONSE TO MR. WATSON ON THAT POINT?

A. First, as demonstrated in Charts 19 and 20 in my response to Mr. Walters, my long-term growth rate is consistent with historical observed nominal GDP. Further, as to the SSA GDP growth rate forecast Mr. Watson cites (and as explained further in my response to

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100 Direct Testimony of Byron S. Watson, at 18–19.
101 Exhibit No.__(BSW-4), at 1.
Mr. Walters), my growth rate estimate falls within the range of the “cases” SSA considers.\textsuperscript{102}

Mr. Watson also points to the Congressional Budget Office (“CBO”), which provides a real GDP annual growth rate estimate of 1.90 percent over the 2019 – 2028 forecast horizon. He suggests the Council take those projections into account.\textsuperscript{103} The CBO, however, provides updates regarding its forecasting record. In that context, the CBO noted that comparisons to other forecasts are not always apt, at least in part because they may be based on different assumptions and used for different purposes.\textsuperscript{104} The CBO also observes that it is required to assume that future fiscal policy generally will reflect current law, so that it may provide a benchmark against which proposed changes in law may be assessed.\textsuperscript{105} The CBO goes on to explain that “because forecasters make different assumptions about future fiscal policy, it is difficult to compare the quality of forecasts without considering the role of expected changes in laws.”\textsuperscript{106} Given that purpose and

\textsuperscript{102} Tables V.B1 and V.B2 of the \textit{2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds} includes “Low Cost” scenario assumptions of 2.90 percent and 3.20 percent for the GDP Price Index and CPI, respectively, and 2.70 percent for Real GDP Growth, over the period 2027 through 2092. Combined, those projections indicate nominal GDP growth of approximately 5.60 percent to 5.90 percent.

\textsuperscript{103} \textit{Direct Testimony of Byron S. Watson}, at 20–21.

\textsuperscript{104} \textit{CBO’s Economic Forecasting Record: 2017 Update}, October 2017, at 4–5.

\textsuperscript{105} \textit{Ibid.}, at 8. “In particular, forecasters in the private sector attempt to predict the future stance of federal fiscal policy, and the Administration’s forecasts assume the adoption of the fiscal policy reflected in the President’s proposed budget. CBO, however, is required to assume that fiscal policy in the future will generally reflect the provisions in current law, an approach that derives from the agency’s responsibility to provide a benchmark for lawmakers as they consider proposed changes in law. Forecasting errors may be driven by those different assumptions, particularly when policymakers are considering major changes in the fiscal policy embedded in current law.”

\textsuperscript{106} \textit{CBO’s Economic Forecasting Record: 2017 Update}, October 2017, at 4–5.
structure, I disagree that the CBO’s forecasts should be used to validate Mr. Watson’s result.

The CBO also notes that among its two-year forecasts (since the early 1980s), the forecast error for “real output growth” and inflation (measured by the Consumer Price Index) has been 1.30 percentage points and 0.90 percentage points, respectively.\(^\text{107}\) That range of error, if applied to the 1.90 percent long-term CBO forecast noted by Mr. Watson, suggests that the 5.45 percent Mr. Watson finds concerning is within a reasonable range.\(^\text{108}\)

Second, although Mr. Watson argues that because it has been used by FERC his approach is reasonable, in its recent \textit{Order Directing Briefs}, FERC concluded that “relying on the DCF methodology alone will not produce a just and reasonable ROE”\(^\text{109}\) and instead proposes to include the Bond Yield Plus Risk Premium, Expected Earnings, and CAPM approaches, to estimate the Cost of Equity.

Q44. **IS YOUR MULTI-STAGE DCF MODEL DEPENDENT ON A LONG-TERM GROWTH RATE ASSUMPTION, AS MR. WATSON SUGGESTS?**\(^\text{110}\)

A. No, it is not. As I explained in my Revised Direct Testimony, an alternative to using a terminal growth rate is to develop the terminal price based on Price/Earnings ratios. Those results are presented in Table 6 (page 30) of my Revised Direct Testimony.

\(^{107}\) \textit{Ibid.}, at 9. Root mean square error.

\(^{108}\) CBO’s 1.90 percent long-term projection of real GDP corresponds to a long-term projection of nominal GDP of 4.00 percent. 4.00\% + 1.30\% + 0.90\% = 6.20\%, which is above my 5.45 percent long-term growth rate.

\(^{109}\) Docket Nos. EL14-12-003 and EL15-45-000, \textit{Order Directing Briefs}, 165 FERC ¶ 61,118 (November 15, 2018) at para. 34.

\(^{110}\) Direct Testimony of Byron S. Watson, at 16.
Q45. AS A PRACTICAL MATTER, DO THE FORECAST HORIZONS IN THE EIA AND GLOBAL INSIGHTS PROJECTIONS CORRESPOND TO MR. WATSON’S TWO-STEP DCF METHOD?

A. No, they do not. As noted earlier, the “two-step” DCF method is applied in a manner similar to the Constant Growth DCF model; the only difference is that the growth rate is a weighted average of analysts’ earnings growth projections, and nominal GDP growth rate projections. We can convert Mr. Watson’s approach to a true two-step DCF analysis, in which the first stage growth rate applies for a finite period, and the long-term growth rate applies from that point on (in perpetuity). In that case, the DCF estimate is the Internal Rate of Return (“IRR”) that sets the market price equal to the present value of the projected dividends. To determine the year in which the second stage growth applies, we only need set the IRR equal to Mr. Watson’s “two-step” DCF result.

To do so, I first replicated Mr. Watson’s Constant Growth DCF results, based on the fundamental Present Value formula:

\[ P_0 = \frac{D_1}{1+k} + \frac{D_2}{(1+k)^2} + \cdots + \frac{D_\infty}{(1+k)^\infty}. \]

As noted earlier the discount rate, \( k \), is the Cost of Equity found in the simplified formula

\[ k = \frac{D(1+g)}{P_0} + g. \]

I then altered the Present Value formula such that the growth in dividends would change from the first-stage growth to the second stage in a given year (which I refer to as the “transition year”). At that point, all that was needed was to find the transition year that caused the IRR to equal Mr. Watson’s two-step DCF estimate (by company).
As shown in ENO Exhibit RBH-22, Mr. Watson’s “two-step” DCF approach implicitly assumes the first stage growth rate transitions to his assumed 4.42 percent growth rate in the 35th year. Mr. Watson has not explained why that is a reasonable assumption, or how it corresponds to the forecast horizons from the sources he cites. In my view, assuming – implicitly or explicitly – growth rates will transition in the 35th year, without a basis for that assumption is nearly arbitrary. Because it is the principal method on which Mr. Watson relies, I do not believe his “two-step” DCF approach should be given weight in determining the Company’s ROE.

F. Bond Yield Plus Risk Premium Approach

Q46. PLEASE SUMMARIZE MR. PROCTOR’S RESPONSE TO YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. Mr. Proctor believes the approach should be “discouraged” because it:

… is neither based on sound economic theory, a mathematical model, nor observed investor behavior in the markets of debt and equity securities. Instead, it is based on the observed behavior of regulatory commissioners setting an authorized ROE. That is, regulatory agencies setting a commission-authorized ROE which may be based on any number of economic or non-economic factors.\textsuperscript{111}

In short, Mr. Proctor feels the approach is “naïve and over-simplified”, susceptible to bias from settlements, and “does not address the relationship between the opportunity cost of equity and interest rates from a free market-based perspective.”\textsuperscript{112}

\textsuperscript{111} Direct Testimony of James M. Proctor, at 58.

\textsuperscript{112} \textit{Ibid.}, at 58–59.
Q47. WHAT IS YOUR RESPONSE TO MR. PROCTOR’S POSITION THAT THE RISK PREMIUM ANALYSIS RELIES ON UTILITY COMMISSIONS’ BEHAVIOR RATHER THAN INVESTOR BEHAVIOR?

A. Although they are based on regulatory proceedings, those cases, and their associated decisions, reflect the same type of market-based analyses at issue in this proceeding. In my experience in over 250 cases, capital market conditions and the concerns of investors are not foreign concepts to regulatory commissions. And although regulatory commissions must balance the interests of investors and ratepayers, investors are aware of that obligation.

Because authorized returns are publicly available (the proxy companies disclose authorized returns, by jurisdiction, in their 2017 SEC Form 10-Ks), it is reasonable to conclude that data is reflected, at least to some degree, in investors’ return expectations and requirements. In my view, Mr. Proctor’s 7.57 percent CAPM result, which he argues is based on a more defensible method, is so far removed from the returns investors know to be available elsewhere that investors would not see it as meeting the Hope and Bluefield standards.

As to Mr. Proctor’s view that the approach is not “based on sound economic theory”, again I disagree. At footnote 34 to my Revised Direct Testimony, I referred to Brigham, Shome, and Vinson’s article, The Risk Premium Approach to Measuring a

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114 Direct Testimony of James M. Proctor, at 57.
Utility’s Cost of Equity. In that article, the authors point out that “with ‘proper’ regulation, utility stocks would provide a better hedge against unanticipated inflation than would bonds.” In that case, if concerns regarding future inflation increase, the perceived risk of bonds would increase more than the perceived risk of equity. That is, the return required on equity would increase less than the return required on bonds, thereby decreasing the Equity Risk Premium.

In the same footnote I referred to Harris and Marston who (as noted earlier) found the Equity Risk Premium to change inversely to changes in interest rates. I also referred to Maddox, Pippert, and Sullivan, whose results “indicate a statistically significant inverse relationship between interest rates and utility equity risk premiums.” Mr. Proctor’s view that the method is not based on a sound theory or model simply is incorrect – it is based on a theory, and a model, supported by published financial literature and research.

Lastly, as noted earlier, Mr. Proctor and Mr. Watson point to FERC as support for their use of the “two-step” DCF method. FERC, however, now believes the Bond Yield Plus Risk Premium approach should be among the four methods used to estimate the Cost of Equity.116

Q48. DOES YOUR BOND YIELD PLUS RISK PREMIUM MODEL PROVIDE EMPIRICALLY MEANINGFUL RESULTS?


A. Yes, it does. As shown in Chart 1 (page 37) of my Revised Direct Testimony, the model’s
R² is about 74.00 percent, and the inverse relationship between the Equity Risk Premium
and the 30-year Treasury yield is statistically significant at the 99.00 percent confidence
level. That is, changes in interest rates explain about 74.00 percent of the change in
authorized ROEs. If Mr. Proctor believes other variables should be included in the
analysis, he has not explained what they are, or how they would contribute to the remaining
26.00 percent of explanatory value needed to produce a perfect statistical fit.

To help put the model’s explanatory value in perspective, I calculated the R²
associated with the Beta coefficient for each company in Mr. Proctor’s proxy group. As
Mr. Proctor is aware, Value Line calculates its Beta coefficients using linear regression
analysis, in which the subject company’s return is the dependent variable, and the market
return is the independent variable. Although Value Line does not provide the R² for its
Beta coefficients, I was able to replicate the calculation based on Value Line’s convention
(weekly returns, using the New York Stock Exchange Index as the market index). As ENO
Exhibit RBH-27 demonstrates, the average R² for Mr. Proctor’s group is 6.80 percent. That
is, whereas the explanatory value of my Bond Yield Plus Risk Premium method is 74.00
percent, the average explanatory value of Mr. Proctor’s Beta coefficients is less than 7.00
percent.117

117 By pointing out that difference, I am not suggesting the CAPM should not be used.
Q49. EARLIER YOU REFERRED TO FOUR METHODS THAT THE FERC HAS PROPOSED TO ESTIMATE THE COST OF EQUITY. WHAT IS THE FOURTH METHOD THE FERC HAS PROPOSED TO ESTIMATE THE COST OF EQUITY?

A. In addition to the two-step DCF approach, the CAPM, and the Bond Yield Plus Risk Premium approach, the FERC has proposed using the Expected Earnings approach.\textsuperscript{118} The Expected Earnings approach calculates the projected returns on book value for the electric industry group as a whole and for the specific firms in the proxy group individually. The Expected Earnings approach is based on the intuitively simple concept that when faced with alternative investments of comparable risk, investors will choose that with the higher expected return. In that fundamental sense it is consistent with the economic principle of opportunity costs, and the \textit{Hope} and \textit{Bluefield} “comparable risk” standard.

Q50. HAVE YOU PREPARED AN EXPECTED EARNINGS ANALYSIS FOR YOUR PROXY GROUP?

A. Yes, I have. To do so, I gathered the three-to-five year projected earned Return on Common Equity\textsuperscript{119} from the latest Value Line report for each proxy company. I adjusted those projected returns to account for the fact that they reflect common shares outstanding at the end of the period, rather than the average shares outstanding over the course of the year.\textsuperscript{120}


\textsuperscript{119} For the projected period 2021-2023, or 2022-2024. See ENO Exhibit RBH-20.

\textsuperscript{120} The rationale for that adjustment is straightforward: Earnings are achieved over the course of a year, and should be related to the equity that was, on average, in place during that year. \textit{See}, Leopold A. Bernstein, \textit{Financial Statement Analysis: Theory, Application, and Interpretation}, Irwin, 4\textsuperscript{th} Ed., 1988, at 630.
That analysis indicates a median Cost of Equity of 10.52 percent, which is within my recommended range and supports the conclusion that the Advisors’ ROE Witnesses’ 8.93 percent recommendation is well below a reasonable estimate of the Company’s Cost of Equity.

G. Business Risk Adjustment

Q51. PLEASE BRIEFLY SUMMARIZE MR. PROCTOR’S PROPOSED BUSINESS RISK ADJUSTMENT.

A. Mr. Proctor does not appear to disagree with the proposition that the Company is risker than its peers. In his view, “its geographic location, its small size, and its propensity to incur significant storm damage”¹²¹ is reason to provide a return in excess of his CAPM estimates. To arrive at his estimate, Mr. Proctor calculates the standard deviation of his proxy group’s Beta coefficient (9.33 percent), which he multiplies by his estimated Market Risk Premium (8.70 percent), producing an adjustment of 81 basis points.¹²² Mr. Proctor believes the sum of his CAPM estimate (7.57 percent), his business risk adjustment (0.81 percent), and his flotation cost adjustment (discussed below; 0.03 percent), 8.42 percent, is a reasonable estimate of the Company’s Cost of Equity.¹²³

Q52. DO YOU AGREE WITH MR. PROCTOR’S APPROACH AND CONCLUSIONS?

¹²¹ Direct Testimony of James M. Proctor, at 61.
¹²² 9.33% x 8.70% = 0.81%. See Direct Testimony of James M. Proctor, at 61.
¹²³ Direct Testimony of James M. Proctor, at 12 – 13; 61–63.
A. No, I do not. Earlier I addressed Mr. Proctor’s view that 8.42 percent is a reasonable estimate of the Company’s Cost of Equity; I will not repeat those arguments here. Those points aside, I fundamentally disagree with the method by which Mr. Proctor developed his estimate.

Q53. WHY DO YOU DISAGREE WITH MR. PROCTOR’S METHOD?

A. In my view, Mr. Proctor’s approach captures statistical variation among the proxy companies’ Beta coefficients; it is not a measure of fundamental business risk. Even if it were, there is no particular reason why one standard deviation is the proper adjustment. As Mr. Proctor’s Exhibit No.__(JMP-9) demonstrates, at the (approximately) 95.00 percent confidence level, the Beta coefficient adjustment would be 1.62 percent, for an adjusted ROE estimate of 9.20 percent.\(^{124}\) What Mr. Proctor fails to consider is that even at that higher confidence level, his method would produce a result near the lowest ROE authorized since at least 1980 for a vertically integrated electric utility.\(^{125}\) That is, even with a risk adjustment two times Mr. Proctor’s proposal, the effect would be an ROE that suggests risk among the very lowest of utilities, not among the highest.

Moreover, in applying Mr. Proctor’s approach it is difficult to disentangle the effect of the variation among the proxy companies’ Beta coefficients and the statistical properties of individual Beta coefficients. As noted earlier, Beta coefficients tend to have relatively low \(R^2\) values (market returns tend to explain relatively low proportions of changes in

\(^{124}\) \((0.7797 – 0.5931) \times 8.70\% = 1.62\%; \quad 9.20\% = (0.78 \times 8.70\%) + 2.41\%\)

\(^{125}\) The lowest authorized ROE for a vertically integrated electric utility since 1980 is 9.00 percent. Source: Regulatory Research Associates.
company-specific returns). A statistical reality is that with low $R^2$ values come relatively high standard errors (see, ENO Exhibit RBH-27). Consequently, what Mr. Proctor attributes to incremental business risk may be not much more than random error.

Those practical points aside, Mr. Proctor’s method runs counter to financial research. For example, Mr. Proctor argues his adjustment is meant to capture, among other things, the Company’s relatively small size. As discussed in my Revised Direct Testimony, however, Beta coefficients do not reflect the risks associated with small size.\(^{126}\) I explained that published research has found stock returns are better explained as a function of variables such as size and Market/Book values *in addition to* the single-factor Beta coefficient. Based on data provided by Duff & Phelps, I calculated the size premium alone to be 101 basis points.\(^{127}\)

That 101-basis point adjustment does not address the span of incremental risks Mr. Proctor identifies - it addresses the Company’s relatively small size, only. One means of capturing the additional return associated with those additional risks is to recognize, as the Advisors’ ROE Witnesses do, that geographic location and storm risk are two factors driving Moody’s below investment grade rating for ENO.\(^{128}\) With that point in mind, I reviewed the incremental return required on below investment grade utility debt relative to investment grade debt. Based on data from Bloomberg Professional, since February 2018, the difference in yields on 30-year utility bonds rated within the BBB ratings categories,

\(^{126}\) Revised Direct Testimony of Robert B. Hevert, at 53.


\(^{128}\) Direct Testimony of Byron S. Watson, at 25–26; Direct Testimony of James M. Proctor, at 61.
and utility bonds rated below investment grade (in the BB ratings category) has been about

220 basis points.\(^\text{129}\)

Although I believe equity return requirements would be much higher than spreads in the bond market, if we simply use this measure and Mr. Proctor’s 7.57 percent unadjusted return, the corresponding Cost of Equity would be approximately 9.77 percent (7.57 percent plus 2.20 percent). Even then, the result is about the same as the average authorized ROE. If we assume the 220-basis point adjustment does not reflect the risks associated with small size, the result would be 10.78 percent (9.77 percent plus 1.01 percent).

I appreciate there may be some overlap between the 220-basis point credit spread and my 101-basis point small size adjustment, such that they are not necessarily additive.\(^\text{130}\)

As noted earlier, however, equity investors bear the residual risk of ownership in perpetuity. And although below investment grade debt has risks greater than its investment grade counterparts, it still has protections not available to equity investors, and a priority claim on cash flows relative to equity investors. Consequently, the Cost of Equity would increase more than the cost of debt, such that the combined 321-basis point adjustment (to Mr. Proctor’s 7.57 percent unadjusted result) would be a reasonable estimate of the Company’s ROE (and just three basis points above my 10.75 percent recommendation).

\(^{129}\) Source: Bloomberg Professional.

\(^{130}\) Moody’s refers to the Company’s “small and concentrated service territory in a low-lying coastal region” as a “credit challenge”. \textit{See} Moody’s Investors Service, Credit Opinion, \textit{Entergy New Orleans, Inc.}, October 13, 2017.
Q54. HAVE YOU CONSIDERED OTHER MEASURES OF THE INCREMENTAL RETURN ASSOCIATED WITH THE RISKS MR. PROCTOR OBSERVES?

A. Yes, I have. Rather than using the standard deviation of Beta coefficients within Mr. Proctor’s proxy group, I reviewed the Beta coefficients of companies with characteristics corresponding to the Company’s below-investment grade rating. To do so, I developed a comparison group of companies that (1) are classified by Value Line as operating in the Electric Utility, Power, or Diversified Natural Gas industries, and (2) have Financial Strength Ratings (also by Value Line) of “B+” or lower.

Q55. WHY DID YOU APPLY THOSE SPECIFIC CRITERIA?

A. First, Value Line is a widely recognized source of financial information, covering industry sectors that are relevant to this analysis. Second, Value Line’s “Financial Strength Rating” considers several factors including “[b]alance sheet leverage, business risk, the level and direction of profits, cash flow, earned returns, cash, corporate size, and stock price”, each of which is an important consideration to equity investors. By selecting companies operating in the electric utility and energy industries, with Financial Strength Ratings similar to ENO’s, we are able to develop a group whose Beta coefficients reasonably reflect the risks associated with a below investment grade credit rating.

Q56. WHY DID YOU SELECT COMPANIES WITH FINANCIAL STRENGTH RATINGS OF “B+” OR LOWER?

A. I did so because the lowest Financial Strength rating of any company in the Value Line Electric Utility universe is “B+”. Of the five Electric Utility companies with a B+ Financial
Strength rating, only Pacific Gas and Electric, however, has a below investment grade rating from either S&P or Moody’s.\textsuperscript{131}

As shown in Table 3 below, the average Beta coefficient for all companies (within the sectors noted above) with Financial Strength Ratings of “B+” or lower is 1.12; the average for companies with “B+” ratings is also 1.12. In both cases, the average was quite near the median and the skew was negligible.

\textbf{Table 3: Average, Median Beta Coefficients}\textsuperscript{132}

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>Skew</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERALL</td>
<td>1.12</td>
<td>1.15</td>
<td>0.72</td>
<td>0.01</td>
<td>107</td>
</tr>
<tr>
<td>FSR = B+</td>
<td>1.12</td>
<td>1.20</td>
<td>0.49</td>
<td>0.20</td>
<td>21</td>
</tr>
</tbody>
</table>

I considered 1.10 a conservative estimate of the Beta coefficient for companies with Financial Safety Ratings of B+. The difference between 1.10 and Mr. Proctor’s proxy group average Beta coefficient (0.59) is 0.51 which, when multiplied by Mr. Proctor’s Market Risk Premium (8.70 percent) produces an incremental equity return requirement of

\textsuperscript{131} Those four companies include CenterPoint Energy, Edison International, Pacific Gas & Electric Company, PNM Resources, and Unitil, Inc.

\textsuperscript{132} Source: Value Line.
4.44 percent. Adding that additional return to Mr. Proctor’s unadjusted CAPM result (7.57 percent) suggests an adjusted ROE of 12.01 percent.\(^{133}\)

Q57. ARE YOU SUGGESTING THAT THE COMPANY’S ROE SHOULD BE SET AT 12.01 PERCENT?

A. No, I continue to recommend 10.75 percent. The analyses discussed above, however, demonstrate that Mr. Proctor’s CAPM estimate and proposed business risk adjustment do not reasonably reflect ENO’s Cost of Equity. There is no reasonable means of reconciling an ROE of 8.38 percent – including his 81-basis point business risk adjustment – with the data and methods frequently used to determine the Cost of Equity.

H. Additional ROE Considerations

\textit{Tax Cuts and Jobs Act}

Q58. PLEASE BRIEFLY SUMMARIZE MR. PROCTOR’S POSITION REGARDING THE TCJA’S EFFECT ON THE COMPANY’S COST OF EQUITY.

A. Mr. Proctor raises two arguments. First, he suggests “if” there is any increase in risk associated with the TCJA it would be industry-wide and reflected in his and Mr. Watson’s analyses.\(^{134}\) Second, Mr. Proctor believes “any over-all negative impact from the TCJA of 2017 on ENO’s business risk is short-lived and immaterial”.\(^{135}\)

\(^{133}\) 12.01\% = (0.51 \times 8.70\% ) + 7.57\%

\(^{134}\) Direct Testimony of James M. Proctor, at 45–46.

\(^{135}\) Ibid., at 46.
Q59. WHAT IS YOUR RESPONSE TO MR. PROCTOR ON THOSE POINTS?

A. As to Mr. Proctor’s first argument, it is important to recall that all models produce ranges of results. The important analytical consideration is whether there are factors that may help determine where the Cost of Equity likely falls within those ranges. As discussed below, the TCJA is one such factor. Regarding his second point, my Revised Direct Testimony noted that because utilities cannot benefit from the TCJA in ways other industries can, utilities became less attractive relative to other industry sectors. That change in valuation has been meaningful, and longer-lived than Mr. Proctor supposes.

Third, the TCJA will affect each company differently and rating agencies are evaluating how each has addressed these effects. Moody’s stated it would “continue to monitor the financial impact of tax reform on each company, including its regulatory approach to rate treatment”, which suggests likewise treatment by equity investors.

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136 For example, Mr. Watson’s unadjusted Two-Step DCF results produce a range of 5.74 percent to 10.64 percent. See Exhibit No.__(BSW-4), Page 1.

137 Revised Direct Testimony of Robert B. Hevert, at 59–60.

Implications of the Formula Rate Plan and Other Rate Mechanisms

Q60. PLEASE SUMMARIZE MR. PROCTOR’S POSITION REGARDING VARIOUS RATE STRUCTURES AND THEIR EFFECT ON THE COMPANY’S CREDIT PROFILE AND COST OF CAPITAL.

A. Mr. Proctor argues that the Company’s “favorable ratemaking considerations, separately and collectively, decreases regulatory lag” which “should provide ENO enhanced financial credit metrics and sustain or improve its credit profile.”

Q61. WHAT IS YOUR RESPONSE TO MR. PROCTOR ON THOSE POINTS?

A. I disagree. Mr. Proctor’s argument appears to be that revenue stabilization mechanisms necessarily are credit enhancing – that they materially improve the utility’s financial integrity, thereby reducing its cost of capital. He fails to consider that rate structures such as the Formula Rate Plan are more likely to be credit supportive – helping utilities maintain their credit profiles in the face of countervailing forces. That is, but for the rate structures, the utility’s credit profile would come under pressure, likely increasing its cost of capital. Even if it were the case that revenue stabilization mechanisms mitigate some measure of “risk,” they would affect the Company’s Cost of Equity only if: (1) the effect of the mechanism was to reduce the Company’s risk below that of its peers; and (2) investors knowingly reduced their return requirements as a direct consequence of the mechanisms.

139 Direct Testimony of James M. Proctor, at 26.
Q62. DOES FINANCIAL THEORY REQUIRE A REDUCTION IN THE COST OF EQUITY
IN CONNECTION WITH STRUCTURES SUCH AS THE FORMULA RATE PLAN?

A. No, it does not. As Mr. Proctor recognizes, in Modern Portfolio Theory (which forms the
basis of the CAPM) risk is defined as the uncertainty, or variability, of returns. Modern
Portfolio Theory was advanced by recognizing that total risk may be separated into two
distinct components: non-diversifiable risk, which is that portion of risk that can be
attributed to the market as a whole; and non-systematic (or diversifiable) risk, which is
attributable to the idiosyncratic nature of the subject company, itself. As discussed in my
Revised Direct Testimony, non-diversifiable risk is measured by the Beta coefficient
within the CAPM structure.\(^{140}\)

Under Modern Portfolio Theory (and the CAPM) an investor would not be
indifferent to a reduction in expected ROE in return for the implementation of rate
structures unless those structures specifically reduce non-diversifiable risk. That is, any
reduction in the Cost of Equity depends on the type of risk that is reduced; if the risk
assumed to be mitigated by the rate structures is diversifiable, there would be no reduction
in the Cost of Equity even if total risk (diversifiable plus non-diversifiable risk) has been
reduced. If, however, rate structures mitigate increased systematic risk associated with the
factors that drove their implementation in the first place, there likewise would be no effect
on the Cost of Equity. Mr. Proctor assumes, but does not demonstrate, any risks he believes
to be mitigated by the Company’s rate structures are systematic in nature, that systematic

risk was not increased before the structures were implemented and, therefore that the rate
structures necessarily reduce the Company’s Cost of Equity.

Lastly, under the “comparable risk” standard and the economic principle of
opportunity costs, the Cost of Equity cannot be considered in isolation, it must be viewed
on a comparative basis. Putting aside his disregard of Modern Portfolio Theory, Mr.
Proctor simply has not shown the Company would be so less risky than its peers that its
Cost of Equity would be 8.42 percent.

Flotation Cost Adjustment

Q63. PLEASE SUMMARIZE MR. PROCTOR’S RECOMMENDATION REGARDING
FLOTATION COSTS.

A. Mr. Proctor agrees an adjustment for flotation costs is reasonable, although he suggests I
have calculated the approximately nine basis point adjustment based on flotation costs of
1.12 percent of gross equity issuance proceeds. As noted in ENO Exhibit RBH-12,
however, the applicable flotation cost rate is 2.525 percent; it is that rate which produces
the nine-basis point adjustment. In any event, Mr. Proctor argues flotation costs should be
calculated net of taxes, and recommends an adjustment of three basis points.¹⁴¹

Q64. DO YOU AGREE WITH MR. PROCTOR’S APPROACH AND CONCLUSIONS?

A. No, I do not. First, as noted above the appropriate flotation cost rate is 2.525 percent,
which represents the weighted average rate over several years and across many companies.

¹⁴¹ Direct Testimony of James M. Proctor, at 62–63.
Because equity has an indefinite life, the flotation costs adjustment should reflect the best estimate of issuances costs “of various vintages and types of equity capital.”

Second, I disagree with Mr. Proctor’s view that the flotation cost rate should be calculated on a tax-effected basis. Flotation costs are not operating expenses and are not recovered through the Company’s revenue requirement. Even if they were, the recovery would be of the cost itself (amortized over some period). Rather, flotation costs are a permanent reduction in equity capital; the adjustment that Mr. Proctor adopts reflects that position. That method, which is consistent with that recommended by Dr. Morin, does not consider income taxes. But even if we did make a tax adjustment, the flotation cost would be about six basis points, not nearly enough to bring Mr. Proctor’s ROE recommendation to a reasonable level.

Double Leverage Adjustment

Q65. PLEASE SUMMARIZE MR. WATSON’S PROPOSED “DOUBLE LEVERAGE” ADJUSTMENT TO THE COMPANY’S CAPITAL STRUCTURE.

A. Mr. Watson argues a utility engages in “double leverage” when it borrows debt at the parent level “and places that money into its utility subsidiaries as common equity providing a potential return which is likely greater than its original borrowed cost.” In his view, the fact that the parent company (Entergy Corporation) has more debt than its utility operating subsidiaries is evidence of “double leverage”, requiring the imposition of a hypothetical

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142 Roger A. Morin, PhD, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 337.
143 Direct Testimony of Byron S. Watson, at 51.
capital structure.\textsuperscript{144} Mr. Watson reasons that “allowing ENO rates reflective of an equity ratio of 52.2\% when the Entergy Corp. equity ratio is 34.1\% would constitute double leverage.”\textsuperscript{145}

As discussed below, extended to its logical conclusion, Mr. Watson’s theory would require every operating subsidiary to be financed in the same proportions as the parent, in this case, with 34.10 percent common equity. But he does not make that recommendation, recognizing that doing so “reasonably might not be considered prudent.”\textsuperscript{146} On that point, we agree. Instead, Mr. Watson concludes that “a reasonable estimate of Entergy’s benefit at ratepayer expense from ENO’s double leverage is closer to $1.5 million and $0.3 million annually for electric and gas respectively based on the average non-ENO EOC equity ratio.”\textsuperscript{147}

In summary, Mr. Watson appears to believe Entergy Corporation has engaged in “double leverage”, which would require a 34.10 percent equity ratio for ratemaking purposes. But he chooses not to go that far, concluding the proper average equity ratio for other Entergy Corporation operating utilities is 50.00 percent.\textsuperscript{148}

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{144} Ibid.
\item\textsuperscript{145} Ibid.
\item\textsuperscript{146} Ibid., at 54.
\item\textsuperscript{147} Ibid.
\item\textsuperscript{148} Ibid., at 55.
\end{itemize}
\end{footnotesize}
Q66. DO YOU AGREE WITH MR. WATSON’S CONCLUSIONS?

A. No, I do not. As discussed below, Mr. Watson’s approach is internally inconsistent, not supported by basic financial theory, removed from regulatory practice, and would have the unintended effect of increasing risks to investors and costs to ratepayers.

Q67. TURNING TO YOUR FIRST POINT, WHY DO YOU BELIEVE MR. WATSON’S RECOMMENDATION IS INTERNALLY INCONSISTENT?

A. Double leverage cannot be not a matter of degree. Here, Mr. Watson argues the parent company has borrowed at debt cost rates and invested that capital in subsidiaries’ equity. That argument assumes, however, that cash is not fungible, that it can be traced from its source (the borrowed debt) to its use (invested equity). If that is the case, there is only one outcome: The 34.10 percent parent company equity ratio must be applied to all Entergy utility operating companies.

Simply, if Mr. Watson’s capital structure recommendation is predicated on his finding of double leverage, he should not recommend anything but 34.10 percent. In addressing that point, the Arkansas Public Service Commission noted that the issue at hand was whether “certain liabilities can be specifically identified and associated with certain assets”, noting the testimony of Staff witness Dr. Berry, who stated that:

You either think fungibility is appropriate, or you don't. You don't draw the line and say, 'Well, certain liabilities are fungible, but certain other liabilities are not.' It’s either all or nothing with fungibility.
By recommending a 50.00 percent equity ratio, Mr. Watson effectively has assumed fungibility can be partially applied.

Q68. PLEASE NOW EXPLAIN WHY YOU BELIEVE MR. WATSON’S ARGUMENT IS NOT SUPPORTED BY FINANCIAL THEORY.

A. Mr. Watson’s position rests on three assumptions that are not supported in finance theory:

1. every dollar of external capital raised by the parent company can be specifically traced to an eventual use,
2. all subsidiaries can and should be financed in the same proportions as the parent,
3. the return required on an investment depends on the source of funds, not on the risks attendant to the investment, itself.

As to the first assumption, Mr. Watson has provided no information regarding how individual sources of capital raised at the parent level were invested in ENO, or any other Entergy Corporation subsidiary. That he did not do so is not surprising; it is a long-held understanding in corporate finance that cash is fungible and cannot be traced to specific uses. In that regard, the Federal Power Commission noted “[i]t is generally impossible to specifically trace the source of funds used for various corporate purposes…”151 Similarly, the New Hampshire Public Service Commission stated that:

We find that sound principles of finance caution against any attempt to ‘track’ dollars raised by a company to any specific purpose. A firm raises capital in a variety of ways, trying always to achieve an overall balance of sources to minimize its cost of money.152

Regarding the second assumption, Mr. Watson’s reference to the parent company capital structure runs counter to the widely accepted practice of applying the “stand-alone” approach, which treats each utility subsidiary as its own company. Under the stand-alone approach, the cost of capital is determined using the subsidiary’s capital structure and cost of debt and equity; the Cost of Equity is estimated by reference to a proxy group of firms of comparable risk. As discussed further below, the stand-alone approach recognizes that the return should be based on the relative risk of the investment rather than the source of financing. That is, the Cost of Equity is the risk-adjusted opportunity cost to the investors and not the cost of the specific capital sources being employed by investors.

Under the stand-alone approach, ownership does not affect the operating utility’s capital structure or cost of capital. Parent entities, like other investors, have capital constraints and must consider the attractiveness of the expected risk-adjusted return of each investment alternative as part of their capital budgeting process. The opportunity cost concept applies regardless of the source of the funding. When funding is provided by a parent entity, the return still must be sufficient to provide an incentive to the firm to allocate equity capital to the subsidiary or business unit rather than other internal or external investment opportunities. That is, the regulated subsidiary must compete for capital with its affiliates and with other, similarly situated utility companies. In that regard, investors value corporate entities on a sum-of-the-parts basis and expect each division within the parent company to provide an appropriate risk-adjusted return. It therefore is important that the authorized capital structure reflects the risks and prospects of the utility’s operations and supports the utility’s financial integrity from a stand-alone perspective.
The stand-alone approach has been long-supported in published financial literature.

In a 1983 article in *The Journal of Financial Research*, Pettway and Jordan found:

No valid support for the "double leverage" approach is found after an analysis of descriptive examples and a general theoretical examination of the two approaches compared against established goals of rate of return regulation. The "independent company" approach is shown to be universally correct. The authors suggest, therefore, that only the "independent company" approach should be employed in rate of return cases of regulated public utilities whose parents own subsidiaries with unequal risk and/or whose parent has its own debt.\(^{153}\)

The use of the operating subsidiary’s actual capital structure – the capital funding the utility plant and equipment that enables utility service – also is consistent with FERC’s precedent, under which the commission prefers to use the applicant’s capital structure, where possible.\(^{154}\) In particular, FERC will use the utility operating company’s capital structure if it meets three criteria: (1) it issues its own debt without guarantees; (2) it has its own bond rating; and (3) it has a capital structure within the range of capital structures approved by the commission.\(^{155}\) FERC noted that if those conditions are not met, it may apply the consolidated capital structure. In those cases, “[u]se of the parent’s market driven capital structure when the operating company’s own capital structure is outside the range of reasonable capital structures ensures that the operating company receives a reasonable return, while also protecting ratepayers against higher rates resulting from equity ratios

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\(^{155}\) 148 FERC ¶ 61,049 Docket No. EL14-12-000, at 190.
outside the reasonable range.” FERC also noted that it does not apply a specific cap to the equity ratio. Rather, the commission stated that:

[we] recognize that a utility may consider a range of factors beyond simple capital cost minimization in developing their capital structures. Such considerations include, but are not limited to, managing risk and cash flow.

FERC therefore has recognized that the capital structure is fundamentally tied to the assets being financed, and to the nature of utility operations.

Lastly, imposing the parent company’s capital structure on the subsidiary assumes all the subsidiary’s equity was provided by the parent. That clearly is not the case; retained earnings are derived from the subsidiary’s operations. In the case of ENO, as of 2017 approximately $190.40 million of its $415.50 Total Proprietary Capital (or 45.80 percent) was derived from retained earnings.157

Q69. PLEASE DISCUSS MR. WATSON’S THIRD IMPLICIT ASSUMPTION, THAT THE REQUIRED RETURN ON AN INVESTMENT Depends on ITS SOURCE OF FUNDS.

A. As noted earlier, Mr. Watson believes debt raised at the parent level has been used to finance equity investments at the subsidiary level, “providing a return which is likely greater than its original borrowed cost.” Because investors tend to be risk averse, the

156 148 FERC ¶ 61,049 Docket No. EL14-12-000, at 191.
157 Entergy New Orleans, LLC FERC Form 1, as of 2017/Q4, at 112.
158 Direct Testimony of Byron S. Watson, at 51.
return they require depends on the risk of the investment, not the source of capital used to
fund the investment.

Under Mr. Watson’s construct, the required return depends on the source of
financing, not on the risks of the underlying utility operations. Two utilities identical in all
respects but for their form of ownership should have the same cost rates. The position that
a company would have a different value depending on how investors fund their equity
investments violates the widely acknowledged economic “law of one price”, which states
that in an efficient market, identical assets would have the same value.

That discussion suggests a second point: If the common equity of a subsidiary were
held by both the parent and an external investor, the equity held by the parent would have
one required return, and the equity held by outside investors would have another. To the
extent required returns differed, so would the value of the equity. But in an efficient
market, identical assets must have the same price (value). If not, the difference quickly
would be arbitraged away. As Dr. Morin notes:

Just as individual investors require different returns from different assets in
managing their personal affairs, why should regulation cause parent
companies making investment decisions on behalf of their shareholders to
act any differently? A parent company normally invests money in many
operating companies of varying sizes and varying risks. These subsidiaries
pay different rates for the use of investor capital, such as long-term debt
capital, because investors recognize the differences in capital structure, risk,
and prospects between the subsidiaries. Yet, the double leverage calculation
would assign the same return to each activity, based on the parent’s cost of
capital. Investors recognize that different subsidiaries are exposed to
different risks, as evidenced by the different bond ratings and cost rates of
operating subsidiaries. The same argument carries over to common equity.
If the cost rate for debt is different because the risk is different, the cost rate
Q70. **LASTLY, WHY DO YOU BELIEVE MR. WATSON’S RECOMMENDATION WOULD HAVE THE EFFECT OF INCREASING THE COST OF CAPITAL?**

A. I believe that is the case for two reasons. First, it would require more financial leverage (debt) in the Company’s capital structure, creating additional financial risk and, therefore, increasing the cost of capital. As Brigham and Gapenski point out, “…the use of debt, or financial leverage, concentrates the firm’s business risk on its stockholders.”

Financial leverage and the cost of capital therefore are inextricably related; as financial risk increases, so does the Cost of Equity. Mr. Watson’s recommendation to increase financial leverage therefore would put upward pressure on the Company’s cost of capital.

Second, as noted earlier, 50.00 percent of the factors Moody’s considers in arriving at credit rating determinations relate to the nature of regulation, and the regulatory environment. Here, the Company’s proposed capital structure is highly consistent with financial leverage and the cost of capital.
industry practice; as discussed in my Revised Direct Testimony, the proxy group average equity ratio has been 53.15 percent.\textsuperscript{162} somewhat higher than the Company’s proposed 52.20 percent equity ratio. If the City Council were to adopt Mr. Watson’s recommendation, the increased debt leverage not only would erode cash flow-related credit metrics, it would introduce an element of regulatory risk that certainly would be of concern to both debt and equity investors. In that case, the costs of debt and equity would increase.

IV. RESPONSE TO AIR PRODUCTS WITNESS WALTERS

Q71. PLEASE SUMMARIZE MR. WALTER’S RECOMMENDATION REGARDING THE COMPANY’S COST OF EQUITY.

A. Mr. Walters recommends an ROE of 9.35 percent, within a range of 9.00 to 9.70 percent.\textsuperscript{163}

Mr. Walters establishes his recommended ROE by reference to: (1) his constant growth DCF model using both consensus analyst growth rates and a sustainable growth rate (with median and average results ranging from 7.69 percent to 9.30 percent);\textsuperscript{164} (2) his Multi-Stage DCF method (with median and mean results of 7.67 percent and 7.78 percent, respectively);\textsuperscript{165} (3) his Risk Premium study (ranging from 9.60 percent to 9.70 percent);\textsuperscript{166} and (4) his CAPM analyses (ranging from 7.30 percent to 8.20 percent).\textsuperscript{167} Mr. Walters’

\textsuperscript{162} See ENO Exhibit RBH-13; updated to 53.44 percent in ENO Exhibit RBH-21.

\textsuperscript{163} Direct Testimony of Christopher C. Walters, at 3.

\textsuperscript{164} Ibid., at 36.

\textsuperscript{165} Ibid., at 36.

\textsuperscript{166} Ibid., at 42.

\textsuperscript{167} Ibid., at 48.
9.35 percent recommendation represents the approximate midpoint of his DCF (9.00 percent) and Risk Premium (9.70 percent) analyses.168

Q72. WHAT ARE THE PRINCIPAL ANALYTICAL AREAS IN WHICH YOU DISAGREE WITH MR. WALTERS?

A. The principal areas in which I disagree with Mr. Walters include: (1) the effect of market conditions and utility risk profiles on the Company’s Cost of Equity; (2) the application of the Constant Growth DCF model, and interpretation of its results; (3) the application of the Multi-Stage DCF model; (4) the Market Risk Premium component of his CAPM analysis, in particular the expected market return from which the Market Risk Premium is calculated; (5) the assumptions and methods underlying Mr. Walters’ Risk Premium analyses; and (6) Mr. Walters’ assessment of the Company’s relative risk.

A. Market Conditions and Utility Risk Profiles

Q73. WHAT IS YOUR RESPONSE TO MR. WALTERS’ OBSERVATION THAT UTILITIES REPRESENT A “LOW RISK” INVESTMENT?

A. If Mr. Walters’ point is that utilities are less risky than the broad market, there is no dispute; the fact that utilities tend to have Beta coefficients less than 1.00 shows that to be the case. At the same time, the average Beta coefficient for Mr. Walters’ proxy group is 0.60,170

168 Ibid., at 49.
169 Ibid., at 81.
170 Source: Schedule CCW-15, Ibid., at 44.
suggesting a meaningful degree of risk. For example, in 2008, when the market lost about 40.00 percent of its value, the SNL Electric Company index lost about 27.00 percent of its value.\(^\text{171}\) In fact, from September through December 2008, when the overall market lost about 28.00 percent of its value, the correlation between the SNL Electric Company Index and the S&P 500 averaged approximately 80.00 percent.\(^\text{172}\) That is, when the capital markets became increasingly distressed, utility valuations also decreased, much like the overall market, but not to the same extent.

Q74. MR. WALTERS REFERS TO SEVERAL RECENT REPORTS BY S&P, MOODY’S, AND FITCH, CONCLUDING THAT THE CURRENT RATING OUTLOOK FOR REGULATED UTILITIES IS STABLE.\(^\text{173}\) DO YOU HAVE A RESPONSE TO MR. WALTERS ON THAT POINT?

A. Yes. I recognize that Mr. Walters referred to certain of the rating agency reports discussed in my Revised Direct Testimony. He notes those reports discuss the uncertainties surrounding the implications of tax reform,\(^\text{174}\) a point also discussed in my Revised Direct Testimony.\(^\text{175}\)

\(^{171}\) Source: S&P Global Market Intelligence.

\(^{172}\) Source: S&P Global Market Intelligence. Based on daily returns. Correlations calculated over rolling three-month periods.

\(^{173}\) Direct Testimony of Christopher C. Walters, at 9–11.

\(^{174}\) Ibid., at 10.

\(^{175}\) Revised Direct Testimony of Robert B. Hevert, at 62–63.
Q75. WHAT ARE SOME OF THE POTENTIAL IMPLICATIONS OF RATING AGENCY COMMENTS REGARDING UTILITY CAPITAL EXPENDITURES?

A. Mr. Walters’ Figure 2 demonstrates that utility capital investment has “increased considerably” and is expected to “remain high” in the 2018-2020 forecast period relative to the prior ten-year historical period. All three rating agencies have observed the negative effects of the TCJA on utilities’ cash flow and the potential consequences for their credit profiles; Moody’s did so as recently as June 2018. It therefore is clear that continued access to external capital at reasonable rates will be important to fund capital expenditures, as Mr. Walters observes. It also is clear that the markets in which that capital will be raised reflect higher expected interest rates and greater volatility than those experienced even over the past two years.

Q76. DO YOU HAVE ANY OBSERVATIONS REGARDING THE ANNUAL AVERAGE AUTHORIZED RETURNS DISCUSSED IN PAGES 4-5 OF MR. WALTERS’ DIRECT TESTIMONY?

A. Yes, I do. Average annual data obscures variation in returns and does not address the number of cases or the jurisdictions issuing orders within a given year. For example, one year may have fewer cases decided, and a relatively large portion of those cases decided

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176 Direct Testimony of Christopher C. Walters., at 7–8.
177 Revised Direct Testimony of Robert B. Hevert, at 61-62.
178 Direct Testimony of Christopher C. Walters, at 75.
179 The median value of the VIX, which measures expected market volatility over the coming 30 days, was 10.85 in 2017, and 17.00 in 2019, indicating a material increase in volatility. By June 2020, the VIX is expected to increase to 18.95. Source: cboe.com, accessed March 8, 2019.
by a single jurisdiction. As shown in Chart 12, if all authorized ROEs are charted, rather than the simple average, there is no meaningful trend since 2014; time explains less than 1.00 percent of the change in ROEs, and the trend is statistically insignificant.


From a slightly different perspective, the recent fluctuations around the annual average authorized return data are well within the standard deviation of authorized ROEs, as shown in Table 5, below.

Table 5: Mean and Standard Deviation of Authorized Returns (2014-2019)

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>9.78%</td>
<td>0.30</td>
</tr>
<tr>
<td>2015</td>
<td>9.64%</td>
<td>0.38</td>
</tr>
<tr>
<td>2016</td>
<td>9.66%</td>
<td>0.35</td>
</tr>
<tr>
<td>2017</td>
<td>9.74%</td>
<td>0.48</td>
</tr>
<tr>
<td>2018</td>
<td>9.60%</td>
<td>0.32</td>
</tr>
</tbody>
</table>

180 Source: Regulatory Research Associates. Excludes limited issue rate riders and ROEs authorized as part of the Illinois formula rate proceedings.

181 Source: Regulatory Research Associates. Excludes limited issue rate riders and ROEs authorized as part of the Illinois formula rate proceedings.
From that perspective as well, there is no reason to conclude authorized returns have fallen since 2014.

Mr. Walters also argues that “the most frequent distribution of authorized equity returns is less than 9.7%”\(^\text{182}\). In support of his argument, he presents the distribution of authorized ROEs for the years 2016, 2017, and 2018 in his Table 1. However, Mr. Walters’ Table 1 includes authorized ROEs for electric distribution utilities, including ROEs authorized under the Illinois Formula Rate proceedings.\(^\text{183}\) If Mr. Walters’ Table 1 were revised to present the statistics for only vertically integrated electric utilities, the result would demonstrate that (1) the mean was 9.75 percent, (2) the median was 9.70 percent, and (3) a majority of authorized ROEs were 9.70 percent and higher (see Table 6 below).

**Table 6: Distribution of Authorized ROEs: Vertically Integrated Electric Cases\(^\text{184}\)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Median</th>
<th>Share of Decisions 9.70% and Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>9.77%</td>
<td>9.78%</td>
<td>55.00%</td>
</tr>
<tr>
<td>2017</td>
<td>9.80%</td>
<td>9.65%</td>
<td>46.43%</td>
</tr>
<tr>
<td>2018</td>
<td>9.68%</td>
<td>9.75%</td>
<td>59.09%</td>
</tr>
<tr>
<td>Total</td>
<td>9.75%</td>
<td>9.70%</td>
<td>52.86%</td>
</tr>
</tbody>
</table>

\(^{182}\) Direct Testimony of Christopher C. Walters, at 5. I note that Mr. Walters’ Table 1 presents the share of decisions authorizing an ROE “less than or equal to 9.70 percent”, rather than ROEs authorized less than 9.70 percent.

\(^{183}\) In Illinois, statute requires the ROEs for Commonwealth Edison and Ameren Illinois to be re-set annually, under a formula rate plan ratemaking paradigm where the allowed ROE is set by application of a 580 basis-point premium to the 12-month average 30-year Treasury Bond yield. In the historically low interest rate environment, this framework has resulted in the lowest ROEs in at least 30 years. Source: RRA.

\(^{184}\) Source: Regulatory Research Associates. Excludes limited issue rate riders.
B. Constant Growth DCF Model

Q77. AS A PRELIMINARY MATTER, DOES MR. WALTERS GIVE HIS CONSTANT GROWTH DCF RESULTS ANY WEIGHT IN ARRIVING AT HIS 9.35 PERCENT ROE RECOMMENDATION?

A. Yes. As noted earlier, Mr. Walters’ 9.35 percent recommendation represents the approximate midpoint of his 9.00 percent to 9.70 percent recommended range. The lower bound of Mr. Walters’ range (9.00 percent) is based on his DCF results, and the upper bound (9.70 percent) is based on his Risk Premium results.\textsuperscript{185} To arrive at his DCF-based recommendation, Mr. Walters gives primary weight to his Constant Growth DCF model results based on analysts’ growth rate projections (8.86 percent to 9.30 percent), but notes he “also considers the results of [his] other DCF models.”\textsuperscript{186}

Q78. DO YOU HAVE ANY CONCERNS WITH THE CONSTANT GROWTH DCF MODEL IN GENERAL AND THE WEIGHT MR. WALTERS APPLIES TO THOSE RESULTS IN PARTICULAR?

A. Yes, I do. In addition to the reasons discussed in Section II, the Constant Growth DCF model is based on several underlying assumptions establishing an inverse relationship between expected growth and the dividend yield. Under those assumptions, as higher growth produces higher prices, and lower dividend yields. Conversely, lower growth produces lower prices, and higher dividend yields. Contrary to those fundamental

\textsuperscript{185} Direct Testimony of Christopher C. Walters, at 49.

\textsuperscript{186} Ibid., at 38. Clarification added.
assumptions, Mr. Walters’ Constant Growth DCF analysis applies historically high
valuations (see Chart 13, below), but comparatively low growth rates.

Chart 13: Mr. Walters’ Proxy Group Rolling Average P/E Ratio\(^\text{187}\)

As Mr. Walters acknowledges, unsustainable expansions in P/E ratios create
analytical concerns. For example, at pages 46-47 of his Direct Testimony, Mr. Walters
discusses the Market Risk Premium component of his CAPM and explains Ibbotson &
Chen’s finding regarding an “abnormal expansion” of P/E ratios relative to earnings and
dividend growth. Because higher P/E ratios were not explained by higher growth in
earnings or dividends, Ibbotson and Chen’s analyses required adjustments.\(^\text{188}\) Duff &
Phelps, the source referenced by Mr. Walters, provides that adjustment using three-year
average P/E ratios, rather than relying on the current year, because “the three-year average
allows the adjustment to smooth out the volatility of extraordinary events and allows


\(^\text{188}\) Direct Testimony of Christopher C. Walters, at 47, citing Duff & Phelps 2018 Valuation Handbook.
earnings to better reflect a normalized trend. Duff & Phelps recognized that the long-
term trend of the level of P/E ratios is important, and that abnormally high P/E ratios will produce questionable analytical results.

The same conditions hold here. As shown in Chart 13, the utility sector has undergone an “abnormal expansion” in P/E ratios, which should not be expected to remain constant in perpetuity. Consequently, Constant Growth DCF results reflecting abnormal capital market conditions should be viewed with caution and given less weight. Whereas Duff & Phelps recognized and adjusted its analyses to reflect the abnormal expansion in P/E ratios, Mr. Walters’ DCF analyses, and his interpretation of their results, do not. In short, I disagree with Mr. Walters’ conclusions and continue to believe less weight should be given to the Constant Growth DCF model under current market circumstance.

C. Application of the Multi-Stage DCF Model

Q79. DO YOU AGREE WITH MR. WALTERS’ APPLICATION OF THE MULTI-STAGE DCF MODEL?

A. No, I do not. Mr. Walters’ Multi-Stage DCF model contains several assumptions that produce unreasonably low ROE estimates. In particular, Mr. Walters’ model assumes a perpetual growth rate beginning in the eleventh year of his model (that is, beginning in calendar year 2029) based on a GDP growth rate projection that actually ends in 2029. In addition, Mr. Walters assumes all dividends are received at year-end, rather than over

189 Duff & Phelps, 2018 Valuation Handbook, at 3-44.
190 See Direct Testimony of Christopher C. Walters, at 29, 33 and Schedule CCW-9; see also and Blue Chip Financial Forecasts, December 1, 2018 at 14.
the course of the year.

Q80. HOW DOES MR. WALTERS’ ASSUMPTION AS TO THE TIMING OF DIVIDEND PAYMENTS UNREASONABLY DECREASE HIS MULTI-STAGE DCF MODEL RESULTS?

A. Mr. Walters notes that quarterly dividends in his Constant Growth DCF model were “annualized (multiplied by 4).”\textsuperscript{191} Considering that Mr. Walters’ proxy companies pay dividends on a quarterly basis, assuming (as Mr. Walters has done) that the entire dividend is paid at the end of that year essentially defers the timing of the quarterly cash flows (that is, the quarterly dividends) until year-end, even though they are paid throughout the year. A reasonable method of reflecting the timing of quarterly dividend payments is to assume cash flows are received in the middle of each year (\textit{i.e.}, the “mid-year convention”). As Duff & Phelps notes:

Common practice in business valuation is to assume that the net cash flows are received on average continuously throughout the year (approximately equivalent to receiving the net cash flows in the middle of the year), in which case the present value factor is generally based on a mid-year convention (\textit{e.g.}, \((1+k)0.5\)).\textsuperscript{192}

Q81. WOULD MR. WALTERS’ MULTI-STAGE DCF RESULTS BE DIFFERENT IF HE APPLIED THE MID-YEAR CONVENTION?

A. Yes. ENO Exhibit RBH-28, which replicates Mr. Walters’ Schedule CCW-9, demonstrates that his model assumes year-end cash flows. As ENO Exhibit RBH-28 also demonstrates,

\textsuperscript{191} Direct Testimony of Christopher C. Walters, at, at 23. Mr. Walters applies the same annualized dividend in his Multi-Stage DCF model.

simply changing the dividend timing to reflect the mid-year convention increases the mean and median results by approximately 13 basis points (from 7.78 percent and 7.67 percent, to 7.91 percent and 7.80 percent, respectively). Even with that change, however, Mr. Walters’ model produces results too low to be reasonable estimates of the Company’s Cost of Equity.

Q82. PLEASE FURTHER EXPLAIN YOUR CONCERN WITH THE LONG-TERM GROWTH RATE IN MR. WALTERS’ MULTI-STAGE DCF MODEL.

A. The long-term growth rate represents the expected rate of growth, in perpetuity, as of the beginning of the third, or terminal, stage. It is an important parameter, given that it accounts for more than 70.00 percent of the model’s results. Mr. Walters’ assumed terminal growth rates is not consistent with his model’s structure, nor is it consistent with measures of growth noted elsewhere in his testimony.

Q83. TURNING TO YOUR SECOND POINT, HOW DOES MR. WALTERS’ ASSUMED 4.19 PERCENT GDP GROWTH RATE CONFLICT WITH OTHER ASPECTS OF HIS ANALYSES?

A. In his Table 7, Mr. Walters presents the results of his various analyses, including his 8.20 percent CAPM estimate. That estimate relies, in part, on a Market Risk Premium of 7.70 percent, which is based on an expected market return of 11.30 percent. As shown in

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193 See ENO Exhibit RBH-28.
194 Schedule CCW-16; Direct Testimony of Christopher C. Walters, at 45.
ENO Exhibit RBH-16, the current expected market dividend yield is approximately 2.10 percent, suggesting an expected growth rate of about 9.20 percent (11.30 percent - 2.10 percent). At pages 29-30 of his testimony, Mr. Walters compares utility earnings growth rates to his expected GDP growth rate, concluding that one should correlate to the other. If that is the case, Mr. Walters’ CAPM analysis assumes economic growth could be as high as 9.20 percent, well in excess of the 4.19 percent growth rate he uses to assess my estimates.

Q84. HAVE YOU CONSIDERED HOW MR. WALTERS’ MULTI-STAGE DCF RESULTS WOULD CHANGE IF IT INCLUDED A TERMINAL GROWTH RATE IN THE RANGE OF 9.20 PERCENT?

A. Yes. Rather than assume 9.20 percent, I solved for the terminal growth rate that would produce mean and median ROE estimates of about 9.55 percent, consistent with the 2018 average authorized ROE provided in Mr. Walters’ Schedule CCW-11. I then considered that terminal growth rate relative to the 9.20 percent growth rate associated with Mr. Walters’ expected market return. As ENO Exhibit RBH-28 demonstrates, using Mr. Walters’ Multi-Stage DCF model (including the mid-year convention), a terminal growth rate of 6.26 percent produces mean and median ROE estimates of 9.61 percent and 9.50 percent, respectively (average of 9.55 percent). That growth rate (6.26 percent) falls below the midpoint of the 4.19 percent and 9.20 percent growth rates assumed in Mr. Walters’ other analyses (that midpoint being 6.70 percent). It also falls below the long-term average nominal GDP growth rate of 6.34 percent reported by the Bureau of Economic Analysis.
Assuming the 6.70 percent midpoint as the terminal growth rate produces an average ROE estimate of about 9.97 percent, well above Mr. Walters’ 9.35 percent recommendation.

WHAT CONCLUSIONS DO YOU DRAW FROM THOSE ANALYSES?

A. Adjusting Mr. Walters’ Multi-Stage DCF model to reflect growth rates associated with other aspects of his analyses produces ROE estimates consistent with returns authorized in other jurisdictions, and closer to my recommended range.

D. Application of the CAPM

PLEASE BRIEFLY SUMMARIZE MR. WALTERS’ CAPM ANALYSIS AND RESULTS.

A. Mr. Walters’ two CAPM estimates (7.30 percent and 8.20 percent) are based on two measures of principally historical Market Risk Premium estimates, *Blue Chip Financial Forecasts*’ projected 30-year Treasury yield of 3.60 percent as the risk-free rate and an average Beta coefficient of 0.60 as reported by Value Line. Based on his assessment of risk premiums in the current market, Mr. Walters relies on the high-end 8.20 percent CAPM. Mr. Walters’ analyses assume Market Risk Premium estimates of 7.70 percent (based on the long-term historical arithmetic average real market return from 1926 through 2017 as reported by Duff & Phelps, adjusted for current inflation forecasts) and 6.10 percent (based on the historical difference between the average return on the S&P 500 and

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the average total return on long-term government bonds).\textsuperscript{197} Combining those Market Risk Premium estimates with his projected long-term risk-free rate, Mr. Walters develops expected market returns in the range of 9.70 percent to 11.30 percent.\textsuperscript{198}

Q87. TURNING FIRST TO THE EXPECTED TOTAL MARKET RETURN, DO YOU AGREE WITH MR. WALTERS’ 9.70 PERCENT AND 11.30 PERCENT ESTIMATES?

A. No, I do not. As a practical matter, Mr. Walters’ 9.70 percent expected total market return estimate, which is 236 basis points below the long-term average market return, falls outside the range of average returns during the period 1976-2017 using 50-year annual averages; his higher 11.30 percent estimate falls in the bottom 22\textsuperscript{nd} percentile of the average return over the last fifty years.\textsuperscript{199} A helpful perspective on the historical market return is the rolling 50-year average annual market return. As Mr. Walters points out, from 1926 through 2017 the arithmetic average market return was 12.10 percent.\textsuperscript{200} Over time, the rolling fifty-year mean return has been quite consistent, in the range of approximately 12.00 percent.\textsuperscript{201} Taken from that perspective, Mr. Walters’ 9.70 percent expected market return is well below the long-term market experience and, therefore, is not reasonable.

\textsuperscript{197} Ibid., at 45 and Schedule CCW-16.

\textsuperscript{198} Ibid., Mr. Walters’ low Market Risk Premium of 6.10 percent plus his projected risk-free rate of 3.60 percent equals an estimated market return of 9.70 percent.

\textsuperscript{199} Rolling average basis.

\textsuperscript{200} Direct Testimony of Christopher C. Walters, at 45.

\textsuperscript{201} Source: Duff & Phelps 2018 SBBI Yearbook, Appendix A-1.
Q88. DO YOU AGREE WITH MR. WALTERS’ USE OF THE HISTORICAL AVERAGE MARKET RISK PREMIUM?

A. No. For the reasons discussed in my response to the Advisors’ Witness Mr. Proctor, I do not agree that the historical average Market Risk Premium is appropriate for the CAPM.

E. Application of the Risk Premium Model

Q89. PLEASE BRIEFLY DESCRIBE MR. WALTERS’ RISK PREMIUM ANALYSES.

A. Mr. Walters defines the “Risk Premium” as the difference between average annual authorized equity returns for electric utilities and a measure of long-term interest rates each year from 1986 through 2018. Mr. Walters’ first approach calculates the annual risk premium by reference to the 30-year Treasury yield, and his second approach considers the average A-rated utility bond yield. In each case, Mr. Walters establishes his risk premium estimate by reference to five-year and ten-year rolling averages. The lower and upper bounds of Mr. Walters’ Risk Premium range are defined by the lowest and highest rolling average, respectively, regardless of the year in which those observations occurred.

Regarding the period over which he gathers and analyzes his data, Mr. Walters argues his 33-year horizon is “appropriate” for developing an Equity Risk Premium estimate. On page 39 of his Direct Testimony, Mr. Walters further states “it is reasonable

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202 Direct Testimony of Christopher C. Walters, at 37.
203 Ibid., Schedules CCW-11 and CCW-12.
204 Ibid., at 38, Schedules CCW-11 and CCW-12.
205 Ibid., at 39.
to assume that averages of annual achieved returns over long time periods will generally converge on the investors’ expected returns” and concludes his risk premium study is based on “investor expectations, not actual investment returns, and, thus, need not encompass a very long historical time period.” Based on those assumptions, Mr. Walters calculates a range of risk premium estimates of 4.25 percent to 6.72 percent using his Treasury bond analysis, and 2.88 percent to 5.57 percent using his A-rated utility bond analysis.

Combined with a 3.60 percent projected Treasury yield, a 4.44 percent A-rated utility bond yield estimate, and a 4.96 percent Baa-rated utility bond yield estimate, Mr. Walters’ Risk Premium analysis produces results ranging from 7.32 percent to 10.53 percent. To calculate his Risk Premium-based ROE recommended range, Mr. Walters gives 75.00 percent weight to the high end of his risk premium estimates and 25.00 percent to the low end. The 9.60 percent low end of his Risk Premium-based range reflects his weighted risk premium estimates using the 13-week average utility bond yields of 4.44 percent and 4.96 percent. Applying the same 75.00 percent and 25.00 percent weighting to his high and low Treasury yield estimates, respectively, Mr. Walters produces the upper

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207 Schedules CCW-11 and CCW-12.

208 $4.44\% + 2.88\% = 7.32\%; 4.44\% + 5.57\% = 10.01\%; 4.96\% + 2.88\% = 7.84\%; 4.96\% + 5.57\% = 10.53\%; 3.60\% + 4.25\% = 7.85\%; 3.60\% + 6.72\% = 10.32\%.$

209 Direct Testimony of Christopher C. Walters, at 41-42. $9.60\% = (0.125 \times 7.32\%) + (0.125 \times 7.84\%) + (0.375 \times 10.01\%) + (0.375 \times 10.53\%)$
bound of his range of 9.70 percent. Mr. Walters then concludes that upper bound of his range (9.70 percent) is the appropriate Risk Premium-based ROE estimate.

Q90. DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING MR. WALTERS’ RISK PREMIUM ESTIMATES AND HOW THEY WEIGH IN HIS OVERALL ROE RECOMMENDATION?

A. Yes, I do. In assessing his DCF analyses, Mr. Walters relied on his highest results, effectively discarding several other results that ranged from 7.67 percent to 7.92 percent. Similarly, in assessing his CAPM analysis, Mr. Walters relied on his high-end result, discarding an 7.30 percent estimate. In his Risk Premium analysis, however, Mr. Walters retained risk premiums that produced ROE estimates below the DCF and CAPM estimates he discarded. Despite their low levels, Mr. Walters gave those risk premium estimates (producing ROE results of 7.32 percent, 7.84 percent, and 7.85 percent) weights of 25.00 percent in aggregate. Mr. Walters offers no explanation as to why he would exclude DCF results of 7.92 percent and lower, yet include Risk Premium results of 7.32 percent, 7.84 percent, and 7.85 percent. The effect of including his low Risk Premium results is to reduce his ROE range.

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210 Direct Testimony of Christopher C. Walters, at 41-42; 9.70% = (0.25 x 7.85%) + (0.75 x 10.32%)
211 Ibid., at 42.
212 Ibid., at 36.
213 Ibid. at 48.
Q91. WHAT ARE YOUR SPECIFIC CONCERNS WITH MR. WALTERS’ RISK PREMIUM ANALYSIS?

A. I have three concerns with his analysis: (1) Mr. Walters’ method understates the required risk premium in the current market because it ignores an important relationship confirmed by his own data, i.e., that the risk premium is inversely related to the level of interest rates (whether measured by Treasury or utility bond yields); (2) the low end of Mr. Walters’ Risk Premium results is far lower than any ROE authorized since at least 1986 and, as such, has no relevance in estimating the Company’s Cost of Equity; and (3) Mr. Walters suggests that a Market/Book (“M/B”) ratio of 1.00 is a relevant benchmark for assessing authorized ROEs.\(^\text{214}\)

Q92. TURNING FIRST TO THE ISSUE OF M/B RATIOS, DO YOU AGREE WITH MR. WALTERS THAT M/B RATIOS SHOULD BE USED TO ASSESS THE REASONABLENESS OF ROE RECOMMENDATIONS?

A. No. Although Mr. Walters frames his discussions in the context of authorized returns “sufficient to support market prices that at least exceeded book value,”\(^\text{215}\) he does not suggest whether the M/B ratio should exceed some level or even explain the relationship between authorized returns and M/B ratios.

The M/B ratio equals the market value (or stock price) per share, divided by the total common equity (or the book equity) per share. Book value per share is an accounting

\(^{214}\) Ibid., at 37–38.
\(^{215}\) Ibid.
construct, which reflects historical costs. In contrast, market value per share (i.e., the stock price) is forward-looking, and a function of many variables, including (but not limited to) expected earnings and cash flow growth, expected payout ratios, measures of “earnings quality,” the regulatory climate, the equity ratio, expected capital expenditures, and the earned return on common equity.

Q93. ARE YOU AWARE OF ANY PUBLISHED RESEARCH THAT ADDRESSES THE ISSUE OF M/B RATIOS IN THE CONTEXT OF THE CONSTANT GROWTH DCF MODEL?

A. Yes. As Branch et al. point out, the M/B ratio generally is greater than or equal to one because the value of the firm as a going concern (price per share) generally exceeds the liquidation value (book value per share) and “…firms having going concern values greater than their liquidation values (most firms) and firms having finite prices (all firms) should have ROE > R> G.”216 Taken from that perspective M/B ratios in excess of unity should not be surprising; if the liquidation value exceeds the market value, the company would be liquidated.

Q94. HAVE M/B VALUES GENERALLY EXCEEDED 1.00 FOR THE BROAD EQUITY MARKET?

A. Yes, they have. As Chart 14 (below) demonstrates, since 1990 the average M/B ratio for the S&P 500 Index has been 2.87; it has never reached unity.

216 Branch et al. (2014), at 18. [clarification added] Here, R = the Cost of Equity, and G = growth.
If investors, over many years and across many companies, felt that the returns they expected had so significantly exceeded the returns they required, they would adjust their requirements.

That finding also is consistent with U.S. Generally Accepted Accounting Principles (“GAAP”) and International Financial Reporting Standards, which require firms to carry the value of assets on their books at the historical cost of those assets. Only under specific circumstances may the value of certain financial investments be carried at market value.

As a result:

...given market efficiency, the [M/B] ratio is intrinsically an accounting phenomenon; that is, on first order, [M/B] is determined by how accountants measure book value... If all assets and liabilities were accounted for using unbiased mark-to-market or “fair value” accounting, [M/B] would be equal to unity for all levels of risk....A good example is a pure investment fund where “net asset value” typically equals market value, since accountants apply mark-to-market accounting to these funds....For

Source: Bloomberg Professional.

most other firms, accountants do not mark the net assets involved with
operations to market. The application of historical cost accounting,
exacerbated by the application of conservative accounting, introduces a
difference between price and book value.\textsuperscript{219}

Q95. \textbf{ARE YOU AWARE OF RESEARCH FOCUSING ON THE M/B RATIOS OF
REGULATED UTILITIES?}

A. \textbf{Yes, such research has long concluded that regulation may not necessarily result in M/B
ratios approaching unity. As noted by Phillips in 1993:

Many question the assumption that market price should equal book value,
believing that 'the earnings of utilities should be sufficiently high to achieve
market-to-book ratios which are consistent with those prevailing for stocks
of unregulated companies.'\textsuperscript{220}

In 1988 Bonbright stated:

In the first place, commissions cannot forecast, except within wide limits,
the effect their rate orders will have on the market prices of the stocks of
the Company they regulate. In the second place, whatever the initial market
prices may be, they are sure to change not only with the changing prospects
for earnings, but with the changing outlook of an inherently volatile stock
market. In short, market prices are beyond the control, though not beyond
the influence, of rate regulation. Moreover, even if a commission did
possess the power of control, any attempt to exercise it ... would result in
harmful, uneconomic shifts in public utility rate levels.\textsuperscript{221}

As noted by Stewart Myers in 1972:

In short, a straightforward application of the cost of capital to a book value
rate base does not automatically imply that market and book values will be
equal. This is an obvious but important point. \textit{If straightforward

\textsuperscript{219} S. H. Penman, S.A. Richardson, and I. Tuna, \textit{"The Book-to-Price Effect in Stock Returns: Accounting for
Leverage"}, Journal of Accounting Research, 45:2, May 2007. The authors use the reciprocal of the M/B and different
notation. In the quote above, I have replaced B/P (where P denotes price per share) with M/B for ease of exposition.

\textsuperscript{220} Charles F. Phillips, \textit{The Regulation of Public Utilities – Theory and Practice} (Public Utility Reports, Inc.,
1993) at 395.

\textsuperscript{221} James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, \textit{Principles of Public Utility Rates} (Public
approaches did imply equality of market and book values, then there would be no need to estimate the cost of capital. It would suffice to lower (raise) allowed earnings whenever markets were above (below) book [emphasis added].  

Lastly, as Dr. Morin states, it is rarely the case in cost of service-based regulation that M/B ratios equal 1.00:

The third and perhaps most important reason for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors’ expected return only when stock price and book value are reasonably similar, that is, when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks understates the investor’s expected return when the market-to-book (M/B) ratio of a given stock exceeds unity. This was particularly relevant in the capital market environment of the 1990s and 2000s whose utility stocks are trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates the investor’s return when the stock’s M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the regulator, that is, a utility’s earnings are limited to earnings on a book value rate base.

Q96. WHAT WOULD BE THE RESULT IF REGULATORY COMMISSIONS DID FORCE M/B RATIOS TOWARD UNITY?

A. Looking to Mr. Walters comparison group, the average capital loss for equity investors would be about 51.30 percent. That loss would not just affect investors, it also would substantially diminish the ability of utilities to attract external capital. To summarize, if

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223 Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 434. [emphasis added]

224 Based on Mr. Walters’ proxy group 2018 average M/B ratio of 205.40. (205.40-100)/205.40 = 51.31 percent. Schedule CCW-6, page 2.
regulatory commissions were to set rates with an eye toward moving the M/B ratio toward unity, that practice may well impede the ability to attract the capital required to support its operations, especially in markets during which the M/B ratio for the overall market is significantly greater than 100.00 percent.

Q97. DO YOU HAVE ANY OTHER OBSERVATIONS REGARDING THIS ISSUE?

A. Yes. It is important to keep in mind that in practice, the M/B ratio is used as a measure of relative, not absolute valuation. That is, it typically is used by investors to assess the value of an asset or enterprise relative to the prevailing M/B ratios of comparable assets or enterprises. Its use as a measure of relative value simply reflects the practical understanding that no one model, including the present value structure that underlies the Constant Growth DCF model, should be relied on as the sole measure of value.

Q98. WHAT DID YOUR ANALYSIS OF MR. WALTERS’ RISK PREMIUM ANALYSES INDICATE?

A. Because Mr. Walters failed to consider the inverse relationship between interest rates and the Equity Risk Premium, his Risk Premium ROE estimates are biased downward. Considering first the Treasury yield-based analysis, I plotted the yields and Risk Premia over the 1986 to 2018 period included in Mr. Walters’ analysis. Chart 15 (below) clearly indicates the inverse relationship between interest rates and the Equity Risk Premium, based on Mr. Walters’ data.
There are several other points made clear in Chart 15. First, the low end of Mr. Walters’ Risk Premium range, 4.25 percent, was observed in the five-year period ending 1991. There is little question that Risk Premium estimates associated with economic environments 28 years ago have little to do with current market conditions. For example, prior to 2002, Treasury yields exceeded the Risk Premium (on a five-year average basis). As Chart 15 (see also ENO Exhibit RBH-29) demonstrates, since then, the opposite has been true – the Risk Premium has consistently exceeded Treasury yields. It therefore is clear that the low end of Mr. Walters’ range has little, if any, relevance to the current market environment.

The high end of Mr. Walters’ range, 6.72 percent, occurred more recently (for the five-year period ending 2016). In fact, as Schedule CCW-11 indicates, Mr. Walters’ Equity Risk Premium averaged approximately 6.75 percent over the more recent period from 2015

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225 Schedule CCW-11; based on five-year rolling average.
through 2018.\textsuperscript{226} Adding that 6.75 percent Equity Risk Premium to Mr. Walters’ projected Treasury yield of 3.60 percent produces an ROE estimate of 10.35 percent, within my recommended ROE range.

\begin{enumerate}
\item Q99. HAS THE RISK PREMIUM INCREASED AS TREASURY YIELDS HAVE DECREASED?
\item A. Yes. The relationship between the five-year average Equity Risk Premium and Treasury yields is very clear. A simple linear regression demonstrates the two are highly related, with a Coefficient of Determination (R-Square) of approximately 96.50 percent (see Chart 16, below).\textsuperscript{227}
\end{enumerate}

\begin{footnotes}
\item[\textsuperscript{226}] Based on Indicated Risk Premium.
\item[\textsuperscript{227}] Those findings are supported in academic studies. For example, Dr. Roger Morin notes that: “… [p]ublished studies by Brigham, Shome, and Vinson (1985), Harris (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and Lakonishok (1983), Morin (2005), and McShane (2005), and others demonstrate that, beginning in 1980, risk premiums varied inversely with the level of interest rates - rising when rates fell and declining when interest rates rose.” Roger A. Morin, New Regulatory Finance, Public Utilities Reports, Inc. 2006 at 128 [clarification added]
\end{footnotes}
Turning back to Mr. Walters’ data, a simple linear regression analysis using annual
(rather than the rolling-average data) demonstrates that for every 100-basis point decrease
in Treasury yields, the Equity Risk Premium increases by approximately 44 basis points
(see ENO Exhibit RBH-30). Similarly, the Equity Risk Premium increases
approximately 45 basis points for every 100-basis point decrease in utility bond yields.
Those results are consistent with those reported by Maddox, Pippert, and Sullivan, who
determined that the Risk Premium would increase by 37 basis points for every 100-basis
point change in the 30-year Treasury yield.

\[ y = -0.4639x + 0.0806 \]
\[ R^2 = 0.9654 \]

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\[228\] See ENO Exhibit RBH-30. Source: Schedule CCW-11.

\[229\] Serial correlation is not present at the 1% significance level.

Contrary to Mr. Walters’ position, accounting for additional factors, such as credit spreads (taken from Mr. Walters’ exhibits), does not change the sign, statistical significance, or the magnitude of the slope coefficient.\textsuperscript{231}

**Q100. WHAT ARE YOUR CONCLUSIONS REGARDING MR. WALTERS’ RISK PREMIUM ANALYSIS?**

**A.** Mr. Walters’ use of rolling average estimates analysis does not negate the effect of his reliance on outdated and unrepresentative data, and the conclusions he draws from that data. Although he argues more variables are at play, Mr. Walters’ own data strongly support the finding that the Equity Risk Premium is inversely related to interest rates. Taking that finding into account leads ROE estimates of nearly 10.00 percent, relative to his 9.35 percent recommendation.\textsuperscript{232}

**F. Response to Mr. Walters’ Criticisms of Company Analyses**

**Q101. PLEASE SUMMARIZE MR. WALTERS’ CRITICISMS OF YOUR COST OF EQUITY ANALYSES.**

**A.** Mr. Walters asserts my estimated ROE is overstated and should be rejected because (1) my Constant Growth DCF results are based on unsustainably high growth rates; (2) my Multi-Stage DCF is based on an “unrealistic” long-term growth rate, a “manipulated” dividend payout ratio, and “unjustified” terminal P/E ratio assumptions; (3) my CAPM is based on

\textsuperscript{231} See ENO Exhibit RBH-30.

\textsuperscript{232} See, for example, ENO Exhibit RBH-29, which present a range of results from 9.71 percent to 9.99 percent.
inflated estimates of the Market Risk Premia; and (4) my Bond Yield Plus Risk Premium is based on an inflated utility Equity Risk Premium. Additionally, Mr. Walters asserts that ENO’s business risks are captured in its credit rating and that a flotation cost adjustment is not appropriate.

Q102. DOES MR. WALTERS HAVE ANY CONCERNS WITH YOUR PROXY GROUP?

A. Although he accepts most companies in my proxy group, Mr. Walters is critical of NextEra Energy, Inc. (“NextEra”) and Southern Company (“Southern”), due to a transaction between the two companies in which Next Era acquired Gulf Power Company and Florida City Gas from Southern.

Q103. DO YOU AGREE THAT THE TRANSACTION BETWEEN NEXTERA AND SOUTHERN IS SIGNIFICANT ENOUGH TO WARRANT THEIR REMOVAL FROM THE PROXY GROUP?

A. No, I do not. The purchase of Gulf Power Company and Florida City Gas from Southern Company (“Southern”) is not transformative to the buyer or seller, either in terms of relative market capitalization or operations. As Mr. Walters notes:

M&A activity can distort the market factors used in DCF and risk premium studies. M&A activity can have impacts on stock prices, growth outlooks, and relative volatility in historical stock prices if the market was anticipating or expecting the M&A activity prior to it actually being announced. This distortion in the market data thus

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233 Direct Testimony of Christopher C. Walters, at 51.
234 Ibid., at 60–64.
235 Ibid., at 20.
impacts the reliability of the DCF and risk premium estimates for a company involved in M&A.\textsuperscript{236}

I agree with Mr. Walters on those points. However, Mr. Walters has not provided any evidence to demonstrate NextEra and Southern’s market factors were “distorted” by the transaction. As shown in Chart 17 below, there was no significant effect on the stock prices of the two companies at the time of the announcement. Over the last year (with the exception of early August due to Southern’s announcement of increased project costs at its Vogtle nuclear plant\textsuperscript{237}), NextEra and Southern have generally traded consistent with other electric utilities (as measured by the SNL Electric Index). Consequently, I have kept NextEra and Southern in my proxy group.

\textbf{Chart 17: Stock Price Change in NextEra and Southern}

\textit{(January 2018 – February 2019)}\textsuperscript{238}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart17.png}
\end{figure}

\textsuperscript{236} \textit{Ibid.}

\textsuperscript{237} \textit{See, e.g., Regulatory Research Associates, “Southern CEO: Vogtle nuke write-off is 'short-term pain, but long-term gain,'” August 8, 2018.}

\textsuperscript{238} Source: S&P Global Market Intelligence.
Q104. ARE THE GROWTH RATES USED IN YOUR CONSTANT GROWTH DCF ANALYSIS “UNSUSTAINABLY HIGH”?

A. No, they are not. A capital appreciation rate of 5.67 percent (i.e., the average growth rate in the Constant Growth DCF analysis in my Revised Direct Testimony) and higher has occurred quite often (see Chart 18 below).\(^{239}\) That is, Chart 18 shows the number of times historical observations have been in certain ranges. The growth rates Mr. Walters asserts are “unsustainably high” by historical standards represent approximately the 42\(^{nd}\) percentile of the actual capital appreciation rates observed from 1926 to 2017.

**Chart 18: Frequency Distribution of Capital Appreciation Returns, 1926-2017\(^ {240}\)**

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\(^{239}\) Under the Constant Growth DCF model’s assumptions, the growth rate equals the rate of capital appreciation.

\(^{240}\) Duff & Phelps, *2018 SBBI Yearbook*, at A-3.
Q105. PLEASE RESPOND TO MR. WALTERS’ ASSERTION THAT YOUR MULTI-STAGE DCF LONG-TERM GROWTH RATE IS INCONSISTENT WITH OTHER CONSENSUS ESTIMATES OF LONG-TERM GDP GROWTH.

A. The long-term growth rate in my multi-stage DCF analysis reflects growth expectations beginning ten years in the future, whereas Mr. Walters’ consensus GDP projections are current five- and ten-year projections. Because there are no consensus forecasts that begin in ten years, it is reasonable to assume that real growth will revert to its long-term average over time. Because the terminal growth rate reflects expected growth in perpetuity, the term of even the longest GDP forecast considered by Mr. Walters does not reflect the expected, perpetual nature of the terminal growth assumed in the DCF model.

In his Multi-Stage DCF analysis, Mr. Walters cites to projections from the EIA, Congressional Budget Office, and other sources including the SSA, and suggests that the terminal growth rate in my Multi-Stage DCF analysis is too high. Because of the inherent uncertainty in economic projections, the SSA provides three sets of projections, including intermediate, low-cost, and high-cost scenarios. My long-term growth estimate falls well within the range of the “scenarios” that the SSA considers.

Mr. Walters’ 4.19 percent long-term sustainable growth rate also is inconsistent with market measures cited elsewhere in his testimony. For example, Mr. Walters does

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241 Direct Testimony of Christopher C. Walters at 34–35.
242 For the SSA’s projections, the low-cost scenario reflects higher economic growth and interest rates.
243 Tables V.B1 and V.B2 of the 2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds includes “Low Cost” scenario assumptions of 2.90 percent and 3.20 percent for the GDP Price Index and CPI, respectively, and 2.70 percent for Real GDP Growth, over the period 2027 through 2092. Combined, those projections indicate nominal GDP growth of approximately 5.60 percent to 5.90 percent.
not consider the use of long-term historical data to develop his terminal growth rate, yet he
relies on long-term historical data in his CAPM analyses. That is, because Mr. Walters’s
CAPM analysis looks to the long-term historical average Market Risk Premium, which
depends (at least in part) on long-term macroeconomic growth, he also should consider the
long-term GDP growth in the Multi-Stage DCF analysis. To that point, the data on which
Mr. Walters relies to perform his analysis undermines his claim that a 4.19 percent estimate
of long-term GDP growth is reasonable. According to Duff & Phelps (which provides the
data Mr. Walters relies on to estimate the historical Market Risk Premia), the arithmetic
average historical capital appreciation rate is 7.80 percent, which is substantially higher
than Mr. Walters’ 4.19 percent estimate of long-term GDP growth.244

Historically, average annual GDP growth rates as low as 4.19 percent have been
infrequent. When measured over five-year periods, average annual GDP growth exceeded
4.19 percent in 71 of 85 periods. The same conclusion holds when growth is measured
over ten-year periods; the average annual GDP growth rate was greater than 4.19 percent
in 68 of 80 periods (see Charts 19 and 20 below).

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244 Duff & Phelps, 2018 Valuation Handbook: Guide to Cost of Capital at 2-4. Even if we were to consider the
gometric mean, the historical capital appreciation rate exceeds Mr. Walters’ 4.19 percent estimate; Mr. Walters notes
on page 31 of his testimony that the long-term geometric average growth rate of the U.S. stock market is 6.00 percent.
Chart 19: Average Annual GDP Growth Measured over Five-Year Periods

Chart 20: Average Annual GDP Growth Measured over Ten-Year Periods

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245 Bureau of Economic Analysis.

246 Bureau of Economic Analysis.
Q106. WHAT IS YOUR RESPONSE TO MR. WALTERS’ ASSERTION THAT YOUR PAYOUT RATIO ASSUMPTION IS UNREASONABLE?

A. Mr. Walters argues there is “no basis” to expect the dividend payout ratio of the proxy group to increase or change between growth stages of the model. I disagree. There are several reasons why management may adjust dividend payments in the near term, such as increases or decreases in expected capital spending. Because we cannot say those factors will remain constant forever, it is reasonable to assume over time, payout ratios will revert to their long-term average.

Several of Mr. Walters’ proxy companies recently have discussed target payout ratios that are highly consistent with my 65.57 percent terminal payout ratio. For example, in late 2018 and early 2019 investor relations presentations, Alliant Energy, American Electric Power, and NorthWestern Corporation noted target payout ratios in the range of 60.00 percent to 70.00 percent. Additionally, RRA expects the dividend payout ratio for electric utilities to rise from 61.70 percent in 2018 to 63.70 percent by 2021. Because my projected payout ratio is consistent with both historical experience and industry expectations, it is entirely appropriate.

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247 Direct Testimony of Christopher C. Walters, at 59.
Q107. PLEASE RESPOND TO MR. WALTERS’ CRITICISM OF YOUR TERMINAL P/E MULTI-STAGE DCF APPROACH.250

A. My terminal P/E approach is consistent with the fundamental assumptions underlying the Constant Growth DCF method. As discussed earlier in my response to Mr. Walters, the utility sector recently has undergone an “abnormal expansion” in P/E ratios, which have weighed on the Constant Growth DCF model’s results. Mr. Walters cannot support the low Constant Growth DCF estimates that result from abnormally high P/E ratios and that weigh directly in his 9.35 percent ROE recommendation while criticizing the same assumption in my Multi-Stage DCF model.

Q108. PLEASE SUMMARIZE MR. WALTERS’ CONCERNS WITH YOUR CAPM ANALYSIS.

A. Mr. Walters’ concerns with my CAPM analysis lie primarily with my Market Risk Premium estimates.251 In particular, Mr. Walters argues my 15.73 percent and 16.10 percent projected returns on the market are “inflated.”252 Mr. Walters further argues there is a “mismatch” between my calculation of the expected market return and the projected Treasury yields used in my CAPM analyses.253

250 Direct Testimony of Christopher C. Walters, at 55, 60–61.
251 Ibid., at 62–63.
252 Ibid., at 63.
253 Ibid.
Q109. WHAT IS YOUR RESPONSE TO MR. WALTERS?

A. I disagree. The market return estimates presented in my Revised Direct Testimony, which Mr. Walters asserts are “inflated,” represent the approximately 53rd and 54th percentile of actual returns observed from 1926 to 2017. Moreover, because market returns historically have been volatile, my market return estimates are statistically indistinguishable from the long-term arithmetic average market data on which Mr. Walters relies.

Mr. Walters also asserts the Market Risk Premia estimated from my projected market returns are “inflated and not reliable.” I therefore gathered the annual Market Risk Premia reported by Duff and Phelps and produced a histogram of the observations (recall that Mr. Walters includes historical data among the methods he uses to estimate the Market Risk Premium). The results of that analysis, which are presented in Chart 21 below, demonstrate Market Risk Premia of at least 12.99 percent (the high end of the range of the Market Risk Premium estimates in my Revised Direct Testimony) occur approximately 40.00 of the time.

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254 Ibid., at 64.
255 Source: Duff & Phelps, 2018 SBBI Yearbook Appendix A-1. Even if we were to look at the standard error, my estimates are within two standard errors of the long-term average.
256 Direct Testimony of Christopher C. Walters, at 64.
Q110. MR. WALTERS ALSO SUGGESTS YOUR EXPECTED MARKET RETURN IS INFLATED BECAUSE THE EXPECTED GROWTH RATES EXCEED THE HISTORICAL RATE OF CAPITAL APPRECIATION.\textsuperscript{258} WHAT IS YOUR RESPONSE TO MR. WALTERS ON THAT POINT?

A. First, Mr. Walters refers to capital appreciation rates in the range of 6.00 percent to 7.80 percent.\textsuperscript{259} To the extent either is meaningful in this context, it is the latter, which is the arithmetic mean. That simply is because the arithmetic mean reflects uncertainty, whereas the geometric mean (the 6.00 percent rate) equates a beginning value to an ending value, with no uncertainty regarding the path from the beginning to the end. Because we are

\textsuperscript{257} ENO Exhibit RBH-31.

\textsuperscript{258} Direct Testimony of Christopher C. Walters, at 64–65.

\textsuperscript{259} \textit{Ibid.}, at 64.
focused on forward-looking estimates, which necessarily reflect uncertainty, the arithmetic
average capital appreciation rate is the appropriate measure.

Second, although Mr. Walters references the long-term capital appreciation rate, he
does not refer to the long-term average “income” rate (the dividend yield) of 4.00 percent,
or that the current expected market dividend yield is about 2.10 percent. Under the
“sustainable growth” model, the higher growth rates and lower dividend yields associated
with the current expected market return simply may mean that companies are retaining
more of their earnings relative to the historical average. In that case, the sustainable growth
method would produce growth rates higher than the historical average. Consequently, Mr.
Walters’ observation that current expected growth rate is higher than the historical growth
rate does not demonstrate my estimates are unreasonable.

Q111. WHAT IS YOUR RESPONSE TO MR. WALTERS’ CONCERN THAT THERE IS A
“MISMATCH” BETWEEN THE EXPECTED MARKET RETURN, AND THE
PROJECTED TREASURY YIELDS IN YOUR CAPM ANALYSIS?

A. Mr. Walters argues that there is an “error” in my calculations because the risk-free rate
used to calculate the market risk premium is not the same risk-free rate used in my CAPM
estimates based on the near-term projected Treasury yields. That is, Mr. Walters appears
to argue that the risk-free rate used to calculate the Market Risk Premium should be the
same as the risk-free rate term in the CAPM.

Source: Bloomberg Professional, Value Line. See ENO Exhibit RBH-16.

Direct Testimony of Christopher C. Walters, at 65.

That is, Mr. Walters argues that in my analyses the term “r_t” should be the same number in the CAPM
Despite that concern, Mr. Walters’ CAPM analysis relies on a method of calculation that is comparable to mine. As Mr. Walters explains, his long-term historical Market Risk Premium estimate (6.10 percent) is the difference between the average market return (approximately 12.10 percent) and the total return of long-term Government bonds (approximately 6.00 percent). But his CAPM estimate, which is presented in his Schedule CCW-16, assumes a risk-free rate component of 3.60 percent, not the 6.00 percent used in his Market Risk Premium calculation. That is, Mr. Walters’ CAPM estimate includes the same type of “mismatch” he claims is an “error” on my part. Had he chosen to use the 6.00 percent risk-free rate that underlies the 12.10 percent market return, Mr. Walters’ CAPM estimate would have been 240 basis points higher.

Q112. AT PAGE 81 OF HIS DIRECT TESTIMONY, MR. WALTERS ARGUES THAT YOUR CONSIDERATION OF PROJECTED TREASURY YIELDS IS “UNREASONABLE” BECAUSE YOU DO NOT CONSIDER “THE HIGHLY LIKELY OUTCOME THAT CURRENT OBSERVABLE INTEREST RATES WILL PREVAIL DURING THE PERIOD IN WHICH RATES DETERMINED IN THIS PROCEEDING WILL BE IN EFFECT.” IS MR. WALTERS CORRECT?

A. No, he is not. Mr. Walters argues the “accuracy of forecasted interest rates is problematic at best.” He states that over the last several years, “current observable interest rates are

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equation: \( k_e = r_f + \beta (r_m - r_f) \).

263 Direct Testimony of Christopher C. Walters, at 45.

264 2.40% = 6.00% - 3.60%.

265 Direct Testimony of Christopher C. Walters, at 81.
just as likely to accurately predict future interest rates as are economists’ projections.”

Although Mr. Walters suggests current yields are a “more accurate predictor” of future yields, he has not indicated what that level of accuracy might be, or how it figures in his conclusion. As Chart 22 (below) demonstrates, using the same quarterly convention applied in Schedule CCW-18 (that is, comparing forecasts five quarters in the future to the actual yields observed in those forecast quarters) shows actual yields were not accurate predictors of future yields. In fact, the forecast error generally was positive through 2015, indicating that observed yields over-predicted actual yields.

**Chart 22: Forecast Error of Spot 30-Year Treasury Yields**

Those results make intuitive sense. During much of the review period (2000 through 2018), interest rates were undergoing a secular decline; with the 2008/2009 recession, interest rates became the subject of Federal monetary policies specifically

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*266 Ibid., at 82.*

*267 Source: Bloomberg Professional.*
designed to keep them low. Because yields fell during that time, prior quarters were likely to over-estimate future quarters.

Although interest yields steadily declined between 2000 and 2015, as noted in my Revised Direct Testimony, in December 2015 the Federal Reserve began its process of monetary policy normalization.\(^{268}\) The effect of that change in policy and improving economic conditions is shown in Chart 23 (below), which limits the review period to the seventeen quarters from December 2014 through December 2018. As interest rates have begun to increase, spot Treasury yields have begun to under-project future yields.

**Chart 23: Forecast Error of Spot 30-Year Treasury Yields Since December 2014\(^ {269}\)**

\(^{268}\) Revised Direct Testimony of Robert B. Hevert, at 67.

\(^{269}\) Source: Bloomberg Professional.
To the extent interest rates continue to increase, Mr. Walters’ suggested approach of using spot yields as a measure of forecast yields will systematically under-estimate Treasury yields, and therefore systematically bias downward his model results.

Q113. PLEASE SUMMARIZE MR. WALTERS’ CRITICISMS OF YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. Mr. Walters’ concern with my Bond Yield Plus Risk Premium analysis is my “contention” of a “simplistic inverse relationship” between the Equity Risk Premium and interest rates, which he suggests is not supported by academic research. He argues that the relevant factor explaining changes in the Equity Risk Premiums is the change to equity risk relative to debt risk, not changes in interest rates alone. Additionally, Mr. Walters asserts that the relationship between the Equity Risk Premium and interest rates is weaker in “the 2010 through the April 2018 post-recession period”.

Q114. WHAT IS YOUR RESPONSE TO MR. WALTERS’ POSITION ON THOSE POINTS?

A. Regarding the inverse relationship between the Equity Risk Premium and interest rates, several academic studies support my findings. Regarding his analysis using my data

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270 Direct Testimony of Christopher C. Walters, at 67.

271 Ibid., at 70. I note that while Mr. Walters discusses the period through April 2018, his Figure 4 includes data through June 2018.

over the 2010 to June 2018 period, Mr. Walters argues that because the “R-squared” is only
45.00 percent, it suggests there is not a “strong relationship” between the two variables.273
I disagree. The salient question is whether the relationship is statistically significant. As
shown in Table 7, the T-statistics show that both the intercept and the 30-year Treasury
yield (the independent variable) are highly significant.274

Table 7: Regression Coefficients for Bond Yield Plus Risk Premium Analysis,
January 2010 - June 2018

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>T-Statistic</th>
<th>P-Value</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.0103</td>
<td>-2.235</td>
<td>0.026</td>
<td>0.005</td>
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<tr>
<td>30-Year Treasury</td>
<td>-0.0222</td>
<td>-16.367</td>
<td>0.000</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Q115. DID YOU PERFORM ANY ADDITIONAL ANALYSES TO ADDRESS MR. WALTERS’ CONCERN REGARDING THE EFFECT OF EXPECTED MARKET VOLATILITY AND INTEREST RATE ENVIRONMENTS ON YOUR RESULTS?
A. Yes, I did. Although for the reasons discussed above I continue to believe the Risk Premium is properly specified, I performed an additional analysis to specifically include the effect of equity market volatility and credit spreads (see ENO Exhibit RBH-32). As with my original Bond Yield Plus Risk Premium analysis, I defined the Risk Premium as the dependent variable and the prevailing 30-year Treasury yield as an independent variable. I then included two additional explanatory variables: (1) the VIX (the Chicago Board Options Exchange’s one-month volatility index, which is a common measure of

273 Direct Testimony of Christopher C. Walters, at 69.
274 As noted earlier, a T-statistic higher than 2.00 (absolute value) indicates a statistically significant relationship at the 95.00 percent confidence level.
volatility); and (2) the credit spread between the 30-year Treasury yield and the Moody’s Baa Utility Index (as a measure of incremental risk). In both instances, the statistically significant inverse relationship between Treasury yields and the Risk Premium remains, and the resulting ROE estimates are generally consistent with those of my original and updated Bond Yield Plus Risk Premium analysis.

Lastly, applying Mr. Walters’ projected 3.60 percent 30-year Treasury yield to the alternative Bond Yield Plus Risk Premium Analysis discussed above produces an ROE estimate of 9.96 percent relative to Mr. Walters’ 9.35 percent recommendation (see ENO Exhibit RBH-32).

Q116. WHAT IS MR. WALTERS’ CONCERN WITH YOUR EVALUATION OF THE COMPANY’S CAPITAL EXPENDITURE PLAN AS IT RELATES TO THE COST OF EQUITY?

A. Mr. Walters argues ENO’s capital expenditure forecasts are not “out of line” with the utility industry.” He point to his Schedule CCW-1, noting that “the industry as a whole is expected to require access to the external capital markets due to producing less cash flow

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275 Mr. Walters notes on page 21 of his testimony that his proxy group has an average Moody’s credit rating of Baa1. See ENO Exhibit RBH-32.

276 See ENO Exhibit RBH-32, ENO Exhibit RBH-19, and ENO Exhibit RBH-7.

277 Mr. Walters uses a 3.60 percent projected Treasury yield in his risk premium analysis. See Direct Testimony of Christopher C. Walters, at 41.

278 Direct Testimony of Christopher C. Walters, at 75.

279 Although Mr. Walters points to Page 6 of Schedule CCW-1, Page 7 of provides his Cash Flow/Capital Spending analysis.
per share than capital spending per share.” However, nowhere does his analysis compare ENO to “the utility industry”, or demonstrate it is in line with the industry. As noted in my Revised Direct Testimony, the Cost of Equity is necessarily a comparative exercise; therefore, any analysis must compare the subject company to a comparable peer group, as I have done in ENO Exhibit RBH-8. As I demonstrated in ENO Exhibit RBH-8, the Company’s planned capital expenditures (as a share of net plant) are well above the proxy group.

Q117. PLEASE SUMMARIZE MR. WALTERS’ TESTIMONY AS IT RELATES TO FLOTATION COSTS.

A. Mr. Walters argues that the flotation cost adjustment is unreasonable because it is “not based on the recovery of prudent and verifiable actual flotation costs incurred by ENO.”

Q118. WHAT IS YOUR RESPONSE TO MR. WALTERS REGARDING THE NEED TO RECOVER FLOTATION COSTS?

A. As explained in my Revised Direct Testimony, flotation costs are not reflected on the income statement as they are not current expenses. Rather they are part of the invested costs of the utility and are reflected on the balance sheet under “paid in capital.” Whether paid directly or via an underwriting discount, the cost results in net proceeds that are less

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280 Direct Testimony of Christopher C. Walters, at 75.
281 Revised Direct Testimony of Robert B. Hevert, at 7.
282 Direct Testimony of Christopher C. Walters, at 78.
283 Revised Direct Testimony of Robert B. Hevert, at 56.
than the gross proceeds. Because flotation costs permanently reduce the equity portion of
the balance sheet, an adjustment must be made to the ROE to ensure that the authorized
return enables investors to realize their required return.

I have provided an illustrative example of the effect of flotation costs on the ROE
in ENO Exhibit RBH-33. As shown in that exhibit, due to the effect of flotation costs,
an authorized return of 10.87 percent would be required to realize an ROE of 10.75 percent
(i.e., a 12-basis point flotation cost adjustment). If flotation costs are not recovered, the
growth rate falls and the ROE decreases to 10.63 percent (i.e., below the required return).

V. RESPONSE TO CRESCENT CITY POWER USERS’ GROUP WITNESS BAUDINO

Q119. PLEASE SUMMARIZE MR. BAUDINO’S ROE ANALYSES AND ROE
RECOMMENDATION IN THIS PROCEEDING.

A. Mr. Baudino recommends an ROE of 9.35 percent, which is based on the results of his
Constant Growth DCF analyses applied to the proxy group of 22 companies used in my
Revised Direct Testimony. Mr. Baudino also performs two CAPM analyses, which he
uses in support of his DCF results and recommended ROE.

284 This example is based on an analysis performed by Dr. Roger Morin. See Roger A. Morin, New Regulatory
285 ENO Exhibit RBH-33 is provided for illustrative purposes only. I have not relied on the results of the analysis
in determining my recommended ROE or range.
286 Direct Testimony of Richard A. Baudino, at 3, 15.
287 Ibid.
Q120. WHAT ARE THE PRINCIPAL AREAS IN WHICH YOU DISAGREE WITH MR. BAUDINO’S ROE ANALYSES?

A. The principal areas in which I disagree with Mr. Baudino include: (1) his reliance on the Constant Growth DCF model to determine the Company’s Cost of Equity; (2) the growth rates applied in the Constant Growth DCF model; (3) the application of the Multi-Stage DCF model; (4) the risk-free rate and Market Risk Premium used in the CAPM; (5) whether the Bond Yield Plus Risk Premium analysis provides reasonable estimates of the Company’s Cost of Equity; (6) our respective assessments of the Company’s level of business and financial risk; and (7) interpretation of current capital market conditions and their effect on ROE.

Q121. AS A PRELIMINARY MATTER, MR. BAUDINO NOTES YOUR ROE RECOMMENDATION IGNORES YOUR DCF RESULTS AND SUGGESTS YOUR ROE RANGE SHOULD BE REJECTED BY THE CITY COUNCIL AS UNSUPPORTED BY YOUR ANALYSES. WHAT IS YOUR RESPONSE?

A. As noted in my Revised Direct Testimony and throughout my Rebuttal Testimony, all models are subject to limiting assumptions and no single model is more reliable than all others under all market conditions. As also noted in my Revised Direct Testimony, it is my view that the Constant Growth DCF model is subject to several assumptions that likely are not consistent with current market conditions, and therefore should be given less weight in the current capital market. To that point (and as noted earlier), authorized returns

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288 Ibid., at 33–39.
consistently have exceeded Constant Growth DCF estimates.\textsuperscript{289} Further, as discussed in Section II above, other regulatory commissions and the FERC have found it appropriate to place less weight on the DCF model results. As to Mr. Baudino’s argument that I reject the results of two of my four methods, he rejects two out of his three approaches, relying exclusively on his Constant Growth DCF model results. Lastly, although Mr. Baudino argues that relying on the high DCF results is inappropriate, his 9.35 percent recommendation is based on his high DCF result.\textsuperscript{290}

A. Application of the Constant Growth DCF Model

Q122. PLEASE BRIEFLY DESCRIBE MR. BAUDINO’S CONSTANT GROWTH DCF ANALYSIS AND RESULTS.

A. Mr. Baudino calculates an average dividend yield of 3.26 percent by dividing each proxy company’s annualized dividend by its monthly stock price for the six-month period ending December 2018.\textsuperscript{291} Mr. Baudino notes that the average dividend yield for the proxy group ranged from 3.23 percent to 3.30 percent during the six-month period.\textsuperscript{292} For the expected growth rate, Mr. Baudino relies on Earnings Per Share growth rate projections from Value Line, Zacks, and First Call, as well as dividend per share (“DPS”) growth rate projections from Value Line.\textsuperscript{293} Mr. Baudino then calculates DCF results based on the mean and

\begin{itemize}
\item \textsuperscript{289} See Chart 1.
\item \textsuperscript{290} Direct Testimony of Richard A. Baudino, at 30.
\item \textsuperscript{291} Ibid., at 20.
\item \textsuperscript{292} Ibid.
\item \textsuperscript{293} Ibid. at 22.
\end{itemize}
median growth rate of the four sources noted above, producing eight ROE estimates, ranging from 8.52 percent to 9.36 percent.\textsuperscript{294}

Mr. Baudino refers to the DCF results produced using mean growth rates as “Method 1”, and DCF results produced using median growth rates as “Method 2”. The mean DCF results of his Methods 1 and 2 were 9.05 percent and 8.97 percent, respectively.\textsuperscript{295}

Q123. DO YOU AGREE WITH MR. BAUDINO THAT DIVIDEND GROWTH RATES ARE APPROPRIATE MEASURES OF EXPECTED GROWTH FOR THE CONSTANT GROWTH DCF MODEL?

A. No, I do not. As discussed in my Revised Direct Testimony, academic literature supports the use of earnings growth rates in the DCF model.\textsuperscript{296} Earnings growth is the fundamental driver of the ability to pay dividends. As noted in my Revised Direct Testimony, to reduce growth to a single measure we assume a fixed payout ratio, and a constant growth rate for earnings per share (“EPS”), DPS, and book value per share (“BVPS”).\textsuperscript{297} ENO Exhibit RBH-34 illustrates that under the strict assumptions of the Constant Growth DCF model, earnings, dividends, book value, and stock prices all grow at the same, constant rate in perpetuity. Because earnings are the fundamental driver of dividends, and knowing investors tend to value common equity on the basis of Price/Earnings ratios, the Cost of

\begin{itemize}
\item \textsuperscript{294} \textit{Ibid.} at 23.
\item \textsuperscript{295} \textit{Ibid.}
\item \textsuperscript{296} See Revised Direct Testimony of Robert B. Hevert, at 19–21.
\item \textsuperscript{297} \textit{Ibid.}, at 18–19.
\end{itemize}

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Equity is a function of the expected growth in earnings, not dividends. That is, earnings growth enables both dividend and book value growth. Book value can increase over time only through the addition of retained earnings, or with the issuance of new equity. Both of those factors are derivative of earnings: retained earnings increases with the amount of earnings not distributed as dividends; and the price at which new equity is issued is a function of the EPS and the then-current P/E ratio.

In addition, Value Line is the only service on which Mr. Baudino relies that provides DPS growth projections. To the extent that the earnings projections services such as Zacks and First Call represent consensus estimates, the results are less likely to be skewed in one direction or another as a result of an individual analyst.

B. DCF Model Assumptions

Q124. PLEASE BRIEFLY DESCRIBE MR. BAUDINO’S CONCERNS WITH YOUR ARGUMENTS REGARDING THE ASSUMPTIONS OF THE DCF MODEL.

A. Mr. Baudino argues: (1) the industry’s current payout ratio’s departure from the long-term average is not a valid concern; and (2) the industry’s current P/E ratio’s departure from its long-term average is not a valid concern.298

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298 Direct Testimony of Richard A. Baudino, at 37.
Q125. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S CONCERN WITH YOUR ASSUMPTION REGARDING PAYOUT RATIOS?

A. As discussed in my responses to Mr. Walters (above), it is reasonable to assume, as Mr. Baudino recognizes, that near-term payout ratios will revert to the long-term industry average over the horizon of the DCF analysis and that assumption is consistent with the stated payout ratio targets of several electric utility companies. In that regard, it is the Constant Growth DCF model relied on by Mr. Baudino (which assumes that payout ratios will remain unchanged in perpetuity) that is inconsistent with investor expectations.

Q126. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S CONCERN WITH YOUR ASSUMPTION REGARDING P/E RATIOS?

A. Mr. Baudino observes that current stock prices reflect investors’ required ROE. However, as explained in my response to the Advisors’ ROE Witnesses, the DCF model will not produce accurate estimates of the market-required ROE if the market price diverges from intrinsic value as defined by the present value formula.

The equity valuation levels recently observed more likely arose from the “reach for yield” that sometimes occurs during periods of low Treasury yields. During those periods, some investors would turn to dividend-paying sectors, such as utilities, as an alternative

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299 Ibid.

300 As discussed in my response to the Mr. Walters, Alliant Energy, American Electric Power, and NorthWestern Corporation noted target payout ratios in the range of 60.00 percent to 70.00 percent.

301 Direct Testimony of Richard A. Baudino, at 37.
source of income (that is, for the dividend yield).\textsuperscript{302} Then, when interest rates increased, investors rotated out of the utility sector, causing prices to fall. Because the Constant Growth DCF model assumes a constant P/E ratio in perpetuity, in periods of elevated P/E ratios, the Constant Growth DCF model understates the required return. As discussed in my Revised Direct Testimony, interest rates are expected to increase.\textsuperscript{303} Consequently, it is unreasonable to place significant weight on the Constant Growth DCF model’s results when the assumptions underlying that model are plainly inconsistent with market expectations.

Q127. HAVE THERE BEEN RECENT PERIODS WHEN UTILITY VALUATION LEVELS WERE HIGH RELATIVE TO BOTH THEIR LONG-TERM AVERAGE AND THE MARKET?

A. Yes. For example, between July and December 2016, the S&P Electric Utility Index lost approximately 9.00 percent of its value. At the same time, the S&P 500 increased by approximately 7.00 percent, indicating that the utility sector under-performed the market by about 16.00 percent. Also during that time, the 30-year Treasury yield increased by as much as approximately 95 basis points (an increase of approximately 44.00 percent). More recently, between January and March 2018, the S&P Electric Utility Index lost approximately 7.00 percent of its value while the S&P 500 increased by approximately

\textsuperscript{302} The relationship between utility prices and utility dividend yields is given in Equation [2], page 17 of my Revised Direct Testimony.

\textsuperscript{303} See Revised Direct Testimony of Robert B. Hevert, at 73. For example, consensus estimates project the 30-year Treasury yield to increase to 3.40 percent by the second quarter of 2020 and to 3.90 percent by 2022. See, Blue Chip Financial Forecasts, Vol. 38, No. 3, March 1, 2019, at 2; Blue Chip Financial Forecasts, Vol. 37, No. 12, December 1, 2018, at 14.
2.00 percent, an under-performance of about 9.00 percent as the 30-year Treasury yield increased by nearly 40 basis points. The point simply is that as interest rates increased, utility valuations fell. As shown in Chart 24, below, since the Federal Reserve began raising interest rates in 2015, utilities (as measured by the S&P 500 Utilities Index) have underperformed the broad market by a substantial margin.

**Chart 24: S&P 500 Utilities vs S&P 500 Returns**

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C. Multi-Stage DCF Analysis

Q128. DO YOU AGREE WITH MR. BAUDINO’S Assertion THAT YOUR LONG-TERM GROWTH RATE ESTIMATE IS OVERSTATED?\(^{305}\)

A. No. For the reasons explained in my response to the Advisors’ ROE Witnesses and Mr. Walters, my long-term growth rate is reasonable and consistent with historical growth. The 5.45 percent long-term growth rate used in my Multi-Stage DCF model is within the

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\(^{304}\) Source: S&P Global Market Intelligence.

\(^{305}\) Direct Testimony of Richard A. Baudino, at 40–41.
bounds of the long-term growth estimates Mr. Baudino uses in his Constant Growth DCF
analysis (mean rates ranging from 5.36 percent to 6.00 percent, and median rates ranging
from 5.17 percent to 6.00 percent).  

D. Capital Asset Pricing Model

Q129. PLEASE SUMMARIZE MR. BAUDINO’S CAPM ANALYSES.

A. Mr. Baudino performs two sets of CAPM analyses. His first set calculates two Market
Risk Premium measures, which rely on the forecasted total market return as determined
using Value Line projections, and six-month averages of five and 30-year Treasury security
yields (i.e., 2.85 percent and 3.17 percent, respectively). Mr. Baudino assumes a total
growth rate for the market of 10.25 percent, using the average of the book value and
earnings growth forecasts (8.50 percent and 12.00 percent, respectively) for all companies
covered by Value Line. Mr. Baudino combines that average growth rate with Value Line’s
average expected dividend yield of 1.19 percent for the same group of companies, which
results in an estimated market return of 11.50 percent. Mr. Baudino then averages that
estimate with Value Line’s projected annual total return of 16.00 percent to arrive at his
final expected market return of 13.75 percent.

Mr. Baudino’s two Market Risk Premium measures represent the difference
between (1) his calculated expected market total return, and (2) the average yield over the

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306 Exhibit__(RAB-3).
307 Exhibit__(RAB-4).
past six months on five- and 30-year Treasury securities. Mr. Baudino arrives at his CAPM results using the average Value Line Beta coefficient of 0.60 for his proxy companies.\textsuperscript{309}

Mr. Baudino’s second set of CAPM analyses calculate the geometric and arithmetic mean long-term annual returns on stocks, and long-term annual income returns on long-term government bonds, resulting in two historical measures of the Market Risk Premium.\textsuperscript{310} Mr. Baudino uses those two Market Risk Premium measures in combination with the current five and 30-year Treasury bond yield and the average Value Line Beta coefficient to calculate two additional CAPM results. Lastly, Mr. Baudino considers an adjusted historical Market Risk Premium calculated by Dr. Roger Ibbotson and Dr. Peng Chen, and reported by Duff & Phelps.\textsuperscript{311}

Although Mr. Baudino advises the City Council to consider only his DCF results in establishing the Company’s ROE, he does report CAPM results ranging from 9.34 percent to 9.47 percent for his forward-looking return analysis and 6.26 percent to 7.39 percent for his historical returns analysis.\textsuperscript{312}

\footnotesize

\textsuperscript{309} Ibid., at 29. Exhibit__(RAB-4).
\textsuperscript{310} Ibid., at 27-28. Exhibit__(RAB-4).
\textsuperscript{311} Ibid., at 28. Exhibit__(RAB-4).
\textsuperscript{312} Direct Testimony of Richard A. Baudino, at 29.
Q130. DO YOU AGREE WITH MR. BAUDINO’S APPLICATION OF THE CAPM AND HIS INTERPRETATION OF ITS RESULTS?

A. No. There are two areas in which I disagree with Mr. Baudino: (1) the term of the Treasury security used as the risk-free rate component of the model; and (2) the calculation of the Market Risk Premium.

Q131. TURNING FIRST TO THE RISK-FREE RATE COMPONENT, WHY DO YOU DISAGREE WITH MR. BAUDINO’S USE OF FIVE-YEAR TREASURY SECURITY AS THE MEASURE OF THE RISK-FREE RATE?

A. As a preliminary matter, I do not disagree with Mr. Baudino’s use of the 30-year Treasury bond as the risk-free rate. As discussed in my response to Mr. Proctor, the tenor of the risk-free rate used in the CAPM should match the life (or duration) of the underlying investment. Like Mr. Watson’s proxy group (see ENO Exhibit RBH-22), the average Equity Duration of the companies in Mr. Baudino’s proxy group is 32.36 years. Given that relatively long Equity Duration, and knowing that utility assets are comparatively long-lived, I continue to believe that it is appropriate to use the long-term (i.e., 30-year) Treasury yield as the measure of the risk-free rate.
Q132. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S SUGGESTION THAT “THE RISK-FREE RATE SHOULD HAVE NO INTEREST RATE RISK”?\(^{313}\)

A. I disagree. If Mr. Baudino is concerned with interest rate risk \textit{per se}, he should focus exclusively on short-term Treasury Bills as the risk-free security, even though they may be less “stable” than longer-dated Treasury bonds.\(^{314}\) Adopting such short-term securities, of course, would further decrease his already-low CAPM estimates. In any case, the perpetual nature of equity argues for the longest-term Treasury security, the 30-year Treasury Bond, to measure the risk-free rate.

Q133. WHAT CONCERNS DO YOU HAVE WITH MR. BAUDINO’S \textsc{ex-ante} MARKET RISK PREMIUM CALCULATIONS?

A. Mr. Baudino calculates the expected market return using an average of earnings growth projections (12.00 percent) and book value growth projections (8.50 percent). As noted above, academic research indicates investors rely on estimates of earnings growth in arriving at their investment decisions. In that regard, Mr. Baudino did not include book value growth projections in his proxy group DCF analysis; he has not explained why it is reasonable to include those growth rates in his Market Risk Premium analysis but exclude them from his proxy company DCF analyses. Excluding book value growth estimates from Mr. Baudino’s market return calculation would increase his Market Risk Premium estimate by approximately 84 basis points on average.

\(^{313}\) Ibid., at 43.

\(^{314}\) Ibid.
Q134. DO YOU AGREE WITH MR. BAUDINO’S USE OF HISTORICAL ESTIMATES OF THE MARKET RISK PREMIUM?

A. No, I do not. For the reasons discussed in my response to the Advisors’ ROE Witnesses and Mr. Walters, the Market Risk Premium is meant to be a forward-looking parameter. A Market Risk Premium calculated using historical market returns does not necessarily reflect investors’ expectations or, for that matter, the relationship between market risk and returns. The relevant analytical issue in applying the CAPM is to ensure that all three components of the model (i.e., the risk-free rate, Beta, and the Market Risk Premium) are consistent with market conditions and investor expectations. Therefore, ex-ante CAPM analyses are the more appropriate method to estimate ENO’s Cost of Equity. Lastly, if Mr. Baudino chooses to rely on historical data, he should consider the inverse relationship between the Market Risk Premium and interest rates.

Q135. PLEASE BRIEFLY SUMMARIZE MR. BAUDINO’S COMMENTS REGARDING YOUR EX-ANTE CAPM ANALYSES.

A. Mr. Baudino disagrees with my ex-ante Market Risk Premium, arguing that the underlying growth rates “are by no means long-run sustainable growth rates.” Mr. Baudino further suggests the forecasted Treasury bond yields applied in my CAPM analyses are “speculative at best and may never come to pass.”

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315 Ibid., at 44.
316 Ibid., at 42.
Q136. DO YOU AGREE WITH MR. BAUDINO’S CONCERNS IN THAT REGARD?

A. No, I do not. As discussed in my response to Mr. Walters, my estimates of the Market Risk Premium are consistent with historical experience. Regarding the use of projected interest rates, it is important to remember that, as Mr. Baudino states, the “[r]eturn on equity analysis is a forward-looking process.” In that regard, I have considered forward-looking estimates of the risk-free rate. Because my analyses are predicated on market expectations, the expected increase in Treasury yields (as reflected in consensus projections) is a measurable and relevant data point.

E. Bond Yield Plus Risk Premium Approach

Q137. WHAT CONCERNS DOES MR. BAUDINO EXPRESS REGARDING YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS?

A. Mr. Baudino suggests the Bond Yield Plus Risk Premium method is “imprecise and can only provide very general guidance,” and notes that “[r]isk premiums can change substantially over time.” In the end, Mr. Baudino likens the approach to a “blunt instrument”. Regarding its application, Mr. Baudino disagrees with the use of projected Treasury yields in calculating the range of Risk Premium-based results.

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317 See Chart 21 above in my response to Mr. Walters and ENO Exhibit RBH-31.
318 Direct Testimony of Richard A. Baudino, at 21.
319 Ibid., at 45.
320 Ibid.
Q138. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S OBSERVATIONS?

A. Turning first to Mr. Baudino’s point that the Risk Premium can change over time, I agree. As noted in my Revised Direct Testimony, there is a statistically significant negative relationship between long-term Treasury yields and the Equity Risk Premium. Given Mr. Baudino’s observation that interest rates have declined since 2008, the Bond Yield Plus Risk Premium analysis provides an empirically and theoretically sound method of quantifying the relationship between the Cost of Equity and interest rates. That is, it provides a method to quantify the change Mr. Baudino has observed.

As to Mr. Baudino’s notion that the approach is a “blunt instrument,” I disagree. As shown in Chart 1 in my Revised Direct Testimony, the R-squared of the Bond Yield Plus Risk Premium regression analysis is approximately 0.74, indicating a rather high degree of explanatory value. More importantly (and as discussed in my response to Mr. Walters), the relationship is highly statistically significant. Consequently, and as explained in my response to the Advisors’ ROE Witnesses, the Bond Yield Plus Risk Premium approach provides empirically and theoretically sound results that can be used, at a minimum, to assess the wide range of ROE results produced by Mr. Baudino’s analyses in general, and his 9.35 percent recommendation in particular.

321 Revised Direct Testimony of Robert B. Hevert, at 35, 37.
Q139. DO YOU AGREE WITH MR. BAUDINO’S CLAIM THAT INCLUDING RATE CASE RESULTS SINCE 1980 IS “AN IRRELEVANT EXERCISE”?  

A. No, I do not. Simply, the model focuses on the relationship between interest rates and the Equity Risk Premium; it does not view the two in isolation. There is no evidence that excluding data from my analysis would improve the model’s ability to estimate expected returns.

F. Business Risks

Q140. PLEASE BRIEFLY SUMMARIZE MR. BAUDINO’S POSITION REGARDING THE COMPANY’S BUSINESS RISKS.

A. Mr. Baudino argues that the business risks discussed in my Revised Direct Testimony are covered in ENO’s credit rating agency reports and that because S&P’s credit rating assigned to the Company is “consistent with the proxy group”, he does not believe an additional risk premium for the Company is appropriate.  

Q141. WHAT IS YOUR RESPONSE TO MR. BAUDINO ON THAT POINT?

A. As with the other intervening witnesses, Mr. Baudino’s assertion that ENO’s credit rating is “consistent with” the proxy group fails to consider the Company’s Moody’s Ba1 rating. None of the other proxy group companies have a below investment grade credit rating. From that perspective alone, I disagree that the Company’s risk (from the perspective of

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322 Direct Testimony of Richard A. Baudino, at 38.
323 Ibid., at 47.
the rating agencies) is similar to the proxy group. That point aside, as explained in my response to the Advisors’ ROE Witnesses, credit ratings speak to overall creditworthiness from the perspective of debtholders, not equity holders. We therefore cannot draw firm inferences regarding differences in the Cost of Equity from differences in credit rating notches.

Q142. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S ARGUMENT THAT THE SMALL SIZE ANALYSIS DOES NOT APPLY TO ENO BECAUSE THE ANALYSIS CONTAINS UNREGULATED COMPANIES?

A. As noted in my Revised Direct Testimony, although studies of the size effect often include unregulated industries, analysts have also noted utilities face risks associated with small size as well (such as concentrated customer base, limited financial resources, and lack of geographic diversity). In addition to the studies cited in my Revised Direct Testimony, Dr. Morin discusses the small size effect Ibbotson Associates found for utility companies in particular:

To illustrate, the Ibbotson data suggests that under SIC Code 49, Electric, Gas & Sanitary Services, the average return for that group over an almost 80-year period was 14.03% for the small-cap company group and 10.86% for the large-cap group, more than a 300 basis point difference. This is true for all industry groups.324

Regardless, as discussed in my response to the Advisors’ ROE Witnesses, I have not made a specific size adjustment to my recommended ROE. Rather, I take into

324 See Revised Direct Testimony of Robert B. Hevert, at 52.
consideration the additional risk implied by ENO’s small size relative to the proxy group when determining where within the range of ROE model results the appropriate ROE should be.

Q143. WHAT IS YOUR RESPONSE TO MR. BAUDINO’S ARGUMENT THAT THE COMPANY’S FORMULA RATE PLAN REDUCES ENO’S RISK?\(^{326}\)

A. For the reasons explained in my response to Mr. Proctor, I disagree. As Mr. Baudino suggests, rate structures such as the Formula Rate Plan are more likely to be credit supportive, rather than credit enhancing.\(^{327}\)

Q144. MR. BAUDINO SUGGESTS FLOTATION COSTS “LIKELY” ARE ACCOUNTED FOR IN CURRENT STOCK PRICES.\(^{328}\) IS HE CORRECT?

A. No, he is not. As explained in my Revised Direct Testimony, the models used to estimate the appropriate ROE assume no “friction” or transaction costs, as these costs are not reflected in the market price (in the case of the DCF model) or risk premium (in the case of the CAPM and the Bond Yield Plus Risk Premium model).\(^{329}\)

\(^{326}\) Direct Testimony of Richard A. Baudino, at 47–48.

\(^{327}\) Ibid., at 48.

\(^{328}\) Ibid.

\(^{329}\) Revised Direct Testimony of Robert B. Hevert, at 57. See also ENO Exhibit RBH-33 for an illustrative example.
G. Capital Market Environment

Q145. PLEASE BRIEFLY DESCRIBE MR. BAUDINO’S DISCUSSION OF CAPITAL MARKETS.

A. Mr. Baudino acknowledges that interest rates increased in the second half of 2016 and will likely continue raising rates into 2019.\(^{330}\) However, Mr. Baudino “firmly believe[s] that it would not be advisable for utility regulators to raise ROEs in anticipation of higher forecasted interest rates that may or may not occur.”\(^{331}\) As discussed in my Revised Direct Testimony, and earlier in my response to Mr. Baudino, investors expect interest rates to rise in the short- and medium-term. Because we are focused on understanding required returns from investors’ perspectives, we should reflect data that is important to them. Mr. Baudino has provided no evidence that projected interest rates are of no consequence to investors.

Q146. MR. BAUDINO ALSO ARGUES THAT “EXPECTATIONS OF HIGHER FUTURE INTEREST RATES, IF ANY, ARE ALREADY LIKELY EMBODIED IN CURRENT SECURITIES PRICES, WHICH INCLUDE DEBT SECURITIES AND STOCK PRICES.”\(^{332}\) DO YOU AGREE WITH MR. BAUDINO’S ARGUMENT?

A. Mr. Baudino makes that argument in the context of “market efficiency”, suggesting that if markets are efficient, expectations regarding the direction and level of interest rates already

\(^{330}\) Direct Testimony of Richard A. Baudino, at 9–11.

\(^{331}\) Ibid., at 10.

\(^{332}\) Ibid., at 9.
are embedded in stock prices and Treasury yields. Mr. Baudino points to Dr. Morin’s 2006 reference to the forecast accuracy of naïve extrapolations and “no-change” methods of projecting interest rates in support of his position that there is no need to consider projected interest rates in setting the current ROE. I have several responses to Mr. Baudino on those points.

Regarding the suggestion that the “no-change” method of projecting interest rates is appropriate in the current market, I do not believe that to be the case. As discussed in my response to Mr. Walters, the Federal Reserve’s Quantitative Easing program, which was initiated after 2006 (that is, after Dr. Morin’s book was published), was designed to put downward pressure on long-term interest rates. Consequently, the observed Treasury yield in a given month likely would over-forecast the observed Treasury yield twelve months in the future. Conversely, when the Federal Reserve completed its Quantitative Easing program, it would be reasonable to assume the observed Treasury yield would under-forecast the yield twelve months in the future (as yields increase). That would be the case even though the Federal Reserve has not yet unwound the $4 trillion of assets it acquired during Quantitative Easing. As Chart 23 above demonstrates, that is clearly the case.

Mr. Baudino’s data support that position. As shown in Table 8, from February 2007 through the end of Quantitative Easing (October 2015), the 30-year Treasury yield

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334 See, e.g., Chart 23.

335 Because the Treasury Department discontinued issuances of 30-year Treasury bonds from March 2002 to January 2006, February 2007 was the first month for which the forecast yield was available.
over-forecast the twelve-month forward yield 71.00 percent of the time. After October 2015, current yields over-forecast future yields only 29.00 percent of the time; from 2017 through December 2018, in only three of 24 months (about 13.00 percent of the time). That is, from 2017 through the end of 2018, the “no-change” approach under-forecast Treasury yields in 21 of 24 months.

Table 8: “No-Change” Forecast Error Observations\(^{336}\)

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<tr>
<td>% Under-Forecast</td>
<td>29.00%</td>
<td>71.00%</td>
<td>87.00%</td>
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If Mr. Baudino wishes to consider current Treasury yields as measures of future rates, we can view the market’s expectations based on the current yield curve. Those expected rates, often referred to as “forward yields” are derived from the “Expectations” theory, which states that (for example) the current 30-year Treasury yield equals the combination of the current five-year Treasury yield, and the 25-year Treasury yield expected in five years. That is, an investor would be indifferent to (1) holding a 30-year Treasury bond to maturity, or (2) holding a five-year Treasury note to maturity, then a 25-year Treasury bond, also to maturity.\(^{337}\) Here, we can apply Mr. Baudino’s data to calculate

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\(^{336}\) Source: Mr. Baudino’s workpapers, Treasury Yields.xls; Federal Reserve Board Schedule H.15.

\(^{337}\) In addition to Expectations theory, there are other theories regarding the term structure of interest rates including: Liquidity Premium Theory, which asserts that investors require a premium for holding long term bonds; Market Segmentation Theory, which states that securities of different terms are not substitutable and, as such, the supply of and demand for short-term and long-term instruments is developed independently; and Preferred Habitat Theory, which states that in addition to interest rate expectations, certain investors have distinct investment horizons.
the forward and current (interpolated) 25-year Treasury yield. If the forward 25-year
Treasury yield exceeds the current 25-year yield, that relationship indicates expectations
of future rate increases.

Based on the data Mr. Baudino’s Exhibit__(RAB-4), page 2, forward yields
consistently exceeded current spot yields throughout 2018 (see Table 9, below). That is,
just as economists’ projections called for increased interest rates, so have forward Treasury
yields.

<table>
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<th>30-Year Treasury Yield</th>
<th>5-Year Treasury Yield</th>
<th>Forward 25-Year Treasury Yield</th>
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<tbody>
<tr>
<td>July</td>
<td>3.01%</td>
<td>2.78%</td>
<td>3.06%</td>
<td>2.96%</td>
</tr>
<tr>
<td>August</td>
<td>3.04%</td>
<td>2.77%</td>
<td>3.09%</td>
<td>2.99%</td>
</tr>
<tr>
<td>September</td>
<td>3.15%</td>
<td>2.89%</td>
<td>3.20%</td>
<td>3.10%</td>
</tr>
<tr>
<td>October</td>
<td>3.34%</td>
<td>3.00%</td>
<td>3.41%</td>
<td>3.27%</td>
</tr>
<tr>
<td>November</td>
<td>3.36%</td>
<td>2.95%</td>
<td>3.44%</td>
<td>3.28%</td>
</tr>
<tr>
<td>December</td>
<td>3.10%</td>
<td>2.68%</td>
<td>3.18%</td>
<td>3.02%</td>
</tr>
<tr>
<td>Average</td>
<td>3.17%</td>
<td>2.85%</td>
<td>3.23%</td>
<td>3.10%</td>
</tr>
</tbody>
</table>

Importantly, forward yields assume the current slope of the yield curve will remain
constant going forward. They therefore assume the conditions supporting the current slope
also will remain constant. As discussed earlier, however, Federal monetary policy
continues to evolve as short-term yields are increased, and the Federal Reserve’s balance
sheet is unwound. Consequently, the current yield curve may not fully reflect market
expectations. Nonetheless, implied forward yields certainly are known and considered by

and will require a return premium for bonds with maturities outside of that preference.

338 Source: Exhibit__(RAB-4), page 2 of 2.
the professionals that contribute to the consensus long-term bond yield projections published by sources such as *Blue Chip Financial Forecasts*. In that case, forward yields would be reflected in economists’ projections.

Q147. MR. BAUDINO ALSO POINTS TO INCREASES IN THE DOW JONES UTILITY AVERAGE, AND THE DECREASE IN UTILITY DEBT YIELDS AS SUPPORT FOR HIS 9.35 PERCENT ROE RECOMMENDATION.\(^{339}\) WHAT IS YOUR RESPONSE TO MR. BAUDINO ON THOSE POINTS?

A. Regarding performance of the Dow Jones Utility Average ("DJU"), an important perspective is its performance relative to the overall market. As Chart 25 (below) demonstrates, from January 2016 through December 2018 (the period included in Mr. Baudino’s Table 1), the DJU significantly underperformed the overall market as measured by the Dow Jones Industrial Average ("DJI"). Notably, much of that underperformance occurred between November 2017 and March 2018, about the time the TCJA was enacted, and during which the major rating agencies noted its implications for utilities. As discussed in my Revised Direct Testimony (and in my response to the Advisors’ ROE Witnesses), a reasonable inference drawn from that data is that investors began to re-evaluate utilities relative to other sectors.\(^ {340}\) That inference, and the related conclusion that required returns for utilities has increased, is supported by Mr. Baudino’s data.

\(^{339}\) Direct Testimony of Richard A. Baudino, at 10–11.

\(^{340}\) Direct Testimony of Robert B. Hevert, at 59.
Regarding Mr. Baudino’s observation that utility bond yields were lower in December 2018 than January 2016, there are several points to consider. First, over time credit spreads tend to be inversely related to Treasury yields. Data from Mr. Baudino’s Table 1 display that relationship; credit spreads were negatively and significantly related to Treasury yields (see Table 10, below).

**Table 10: Regression Statistics**

<table>
<thead>
<tr>
<th></th>
<th>R Squared</th>
<th>F Stat</th>
<th>T Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.241</td>
<td>7.249</td>
<td></td>
</tr>
<tr>
<td>Treasury Yield</td>
<td>-0.327</td>
<td>-3.045</td>
<td></td>
</tr>
</tbody>
</table>

In 2016, the average Treasury yield and credit spreads were 2.60 percent and 1.51 percent, respectively. By 2018, the average Treasury yield increased to 3.11 percent, and the credit spread fell to 1.23 percent, from a low of 1.02 percent (February) to a high of

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341 Source: Direct Testimony of Richard A. Baudino, at 11, Table 1; Yahoo!Finance.

1. 41 percent (December). Simply based on the movement of Treasury yields and credit
spreads since 2016, there is no reason to conclude utility bond yields indicate a lower Cost
of Equity, as Mr. Baudino suggests. If anything, we may conclude that because both
Treasury yields and credit spreads increased during 2018, investors’ perceptions of utility
risk also have increased.

VI. SUMMARY OF UPDATED RESULTS

Q148. PLEASE SUMMARIZE YOUR UPDATED ROE ANALYSES AND RESULTS.

A. I have updated many of the analyses contained in my Revised Direct Testimony, including
the Constant Growth and Multi-Stage DCF analyses, the CAPM, and the Bond Yield Plus
Risk Premium approach with data as of February 28, 2019. As noted in my response to
the Advisors’ ROE Witnesses, I have also included an Expected Earnings analysis. Lastly,
I have updated my proxy group based on recent data. My updated analytical results
based are provided in Table 11 below.

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343 The July 27, 2018 Value Line report for IDACORP, Inc. states its recent high stock price reflects takeover
speculation. Consequently, I have removed IDACORP from my proxy group. Additionally, as enough time has
passed since the merger between Great Plains Energy, Inc. and Westar Energy, Inc. to form Evergy, Inc., I have
included Evergy, Inc. in my proxy group.
Table 11: Summary of Updated Analytical Results

<table>
<thead>
<tr>
<th>Discounted Cash Flow</th>
<th>Mean Low</th>
<th>Mean</th>
<th>Mean High</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Day Constant Growth DCF</td>
<td>8.34%</td>
<td>9.24%</td>
<td>10.23%</td>
</tr>
<tr>
<td>90-Day Constant Growth DCF</td>
<td>8.40%</td>
<td>9.31%</td>
<td>10.30%</td>
</tr>
<tr>
<td>180-Day Constant Growth DCF</td>
<td>8.48%</td>
<td>9.39%</td>
<td>10.38%</td>
</tr>
<tr>
<td><strong>MSDCF-Gordon Method</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-Day Multi-Stage DCF</td>
<td>8.64%</td>
<td>8.87%</td>
<td>9.13%</td>
</tr>
<tr>
<td>90-Day Multi-Stage DCF</td>
<td>8.71%</td>
<td>8.94%</td>
<td>9.20%</td>
</tr>
<tr>
<td>180-Day Multi-Stage DCF</td>
<td>8.79%</td>
<td>9.02%</td>
<td>9.30%</td>
</tr>
<tr>
<td><strong>MSDCF-Terminal P/E</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-Day Multi-Stage DCF</td>
<td>8.35%</td>
<td>8.96%</td>
<td>9.64%</td>
</tr>
<tr>
<td>90-Day Multi-Stage DCF</td>
<td>8.52%</td>
<td>9.13%</td>
<td>9.81%</td>
</tr>
<tr>
<td>180-Day Multi-Stage DCF</td>
<td>8.74%</td>
<td>9.36%</td>
<td>10.04%</td>
</tr>
</tbody>
</table>

**CAPM Results**

<table>
<thead>
<tr>
<th>Average Bloomberg Beta Coefficient</th>
<th>Bloomberg Derived Market Risk Premium</th>
<th>Value Line Derived Market Risk Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current 30-Year Treasury (3.04%)</td>
<td>8.25%</td>
<td>9.78%</td>
</tr>
<tr>
<td>Near-Term Projected 30-Year Treasury (3.25%)</td>
<td>8.47%</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Value Line Beta Coefficient</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current 30-Year Treasury (3.04%)</td>
<td>9.29%</td>
<td>11.12%</td>
</tr>
<tr>
<td>Near-Term Projected 30-Year Treasury (3.25%)</td>
<td>9.50%</td>
<td>11.34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Earnings</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.34%</td>
<td>10.52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bond Yield Risk Premium</th>
<th>Low</th>
<th>Mid</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond Yield Risk Premium</td>
<td>9.93%</td>
<td>9.96%</td>
<td>10.17%</td>
</tr>
</tbody>
</table>

**VII. CONCLUSION**

Q149. WHAT IS YOUR CONCLUSION REGARDING THE ROE FOR THE COMPANY?

A. Based on the analyses discussed throughout my Rebuttal Testimony, and the results summarized in Table 11, I conclude the reasonable range of ROE estimates is from 10.25 percent to 11.25 percent and within that range, 10.75 percent is a reasonable and appropriate estimate of the Company’s Cost of Equity.
Q150. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.
IN RE: REVISED APPLICATION OF
ENTERGY NEW ORLEANS, LLC
FOR A CHANGE IN ELECTRIC AND GAS RATES
PURSUANT TO COUNCIL RESOLUTIONS R-15-194
AND R-17-504
DOCKET NO. UD-18-07

Revised Rebuttal Testimony of
Robert B. Hevert
Work Papers
April 22, 2019
Public Version