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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.
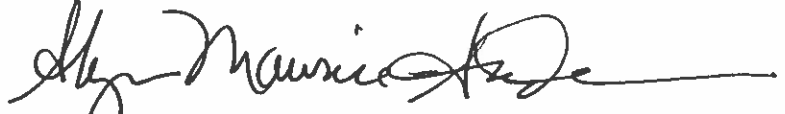
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BY:

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

/ama
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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Alyssa 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

TABLE OF CONTENTS

1 **I. INTRODUCTION**

2 Q1. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS ADDRESS.

3 A. My name is Robert B. Hevert. I am employed by ScottMadden, Inc. as a Partner. My

4 business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

5

6 Q2. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

7 A. I am filing this testimony (referred to throughout as my "Rebuttal Testimony") before the

8 Council of the City of New Orleans ("City Council") on behalf of Entergy New Orleans,

9 LLC. ("ENO" or "Company"), a wholly owned subsidiary of Entergy Corporation

10 ("Entergy").

11

12 Q3. ARE YOU THE SAME ROBERT B. HEVERT WHO PREVIOUSLY SUBMITTED

13 REVISED DIRECT TESTIMONY IN THIS PROCEEDING?

14 A. Yes, I am.

15

16 Q4. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

17 A. The purpose of my Rebuttal Testimony is to respond to the direct testimony of the

18 following witnesses (collectively, "Opposing Witnesses") as their testimonies relate to the

19 Company's Return on Equity ("ROE"):

20
21 • Messrs. James M. Proctor and Byron S. Watson, who testify on behalf of the Advisors
to the City Council ("Advisors", collectively "Advisors' ROE Witnesses");

22
23 • Mr. Christopher C. Walters, who testifies on behalf of Air Products and Chemicals,
Inc. ("Air Products"); and

1

1   • Mr. Richard A. Baudino, who testifies on behalf of the Crescent City Power Users
2   Group ("CCPUG").

3   My Rebuttal Testimony also updates many of the analyses contained in my Revised Direct

4   Testimony and provides several additional analyses developed in response to the Opposing

5   Witnesses.

II. OVERVIEW OF TESTIMONY

7   Q5.   PLEASE PROVIDE A SUMMARY OVERVIEW OF THE CONCLUSIONS AND

8   RECOMMENDATIONS CONTAINED IN YOUR REBUTTAL TESTIMONY.

9   A.   It is important to keep in mind that no one financial model is more reliable than others at

10   all times and under all market conditions. At times, certain models' assumptions become

11   incompatible with market conditions, and their results do not make practical sense.

12   Consequently, we cannot always take model results as given, and assume their results are

13   reasonable measures of the Cost of Equity. Rather, we should apply reasoned judgment in

14   vetting model assumptions, and in assessing the reasonableness of their results. That

15   judgment may lead to the conclusion that the emphasis applied to a particular method in a

16   prior proceeding or under different market conditions is not appropriate in the current

17   instance.

18   Regarding the Company's Cost of Equity, none of the analyses provided or

19   positions taken by the Opposing Witnesses have caused me to revise my recommended

20   range (10.25 percent to 11.25 percent), or my specific recommendation (10.75 percent).

21   For example, certain of the Opposing Witnesses support their recommendations by

22   reference to authorized ROEs, suggesting those returns have trended downward over time.

23   If we consider individual cases over a relevant timeframe (rather than annual averages over

1   long periods), there is no downward trend. There certainly is no basis to conclude ROEs

2   in the range of 8.93 percent to 9.35 percent are supported by returns authorized for other

3   vertically integrated electric utilities. Looking to all model results, and considering the

4   quantitative and qualitative data presented throughout my Rebuttal Testimony, I continue

5   to recommend an ROE in the range of 10.25 percent to 11.25 percent, with a point estimate

6   of 10.75 percent.

7   As to the Company's capital structure, certain of the Opposing Witnesses

8   recommend capitalization ratios that include more leverage (that is, contain more debt)

9   than those in place at utility operating companies. They develop their recommendations

10   based on reviews of parent company, not operating company capital structures. My

11   Rebuttal Testimony explains that operating utilities' financing requirements are heavily

12   influenced by the nature of their operations, including the long-lived nature of the assets

13   required to provide utility service, and the need to access capital regardless of market

14   conditions. The relevant measure of industry practice, therefore, is the financing practice

15   at the operating company level, not the consolidated parent company level. As my Rebuttal

16   Testimony also explains, Mr. Watson's proposed "double leverage" adjustment is not

17   supported in theory or practice, and should not be considered in determining the

18   Company's ratemaking capital structure.

19

20   Q6.   PLEASE NOW PROVIDE AN OVERVIEW OF YOUR RESPONSE TO THE ROE

21   RECOMMENDATIONS MADE BY THE OPPOSING WITNESSES.

22   A.   In this proceeding, the Opposing Witnesses give considerable weight to the Discounted

23   Cash Flow ("DCF") method, even though it produces ROE estimates in some cases more

1   than 150 basis points below the returns authorized for other electric utilities.[1] For example,

2   the Advisors' ROE Witnesses' recommendation of 8.93 percent is based on Mr. Watson's

3   DCF analysis.[2] Mr. Walters set the low end of his recommended range (*i.e.*, 9.00 percent)

4   by reference to his DCF model results,[3] and Mr. Baudino relies principally on his DCF

5   results in arriving at his ROE recommendation.[4] Table 1 (below) summarizes the Opposing

6   Witnesses' ROE recommendations.

7   **Table 1:**

8   **Summary of ROE Recommendations**

WITNESS	ROE RANGE		ROE RECOMMENDATION
	LOW	HIGH	
Mr. Watson (Advisors)	8.42%	8.93%	8.93%
Mr. Proctor (Advisors)	8.42%	8.93%	8.93%
Mr. Walters (Air Products)	9.00%	9.70%	9.35%
Mr. Baudino (CCPUG)	8.70%	9.35%	9.35%
Mr. Hevert (ENO)	10.25%	11.25%	10.75%

9   Because the Opposing Witnesses give considerable weight to their DCF-based

10   results, it is not surprising that their recommendations fall well below currently authorized

11   returns. As Chart 1 (below) demonstrates, since 2014 the Constant Growth DCF model

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[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.
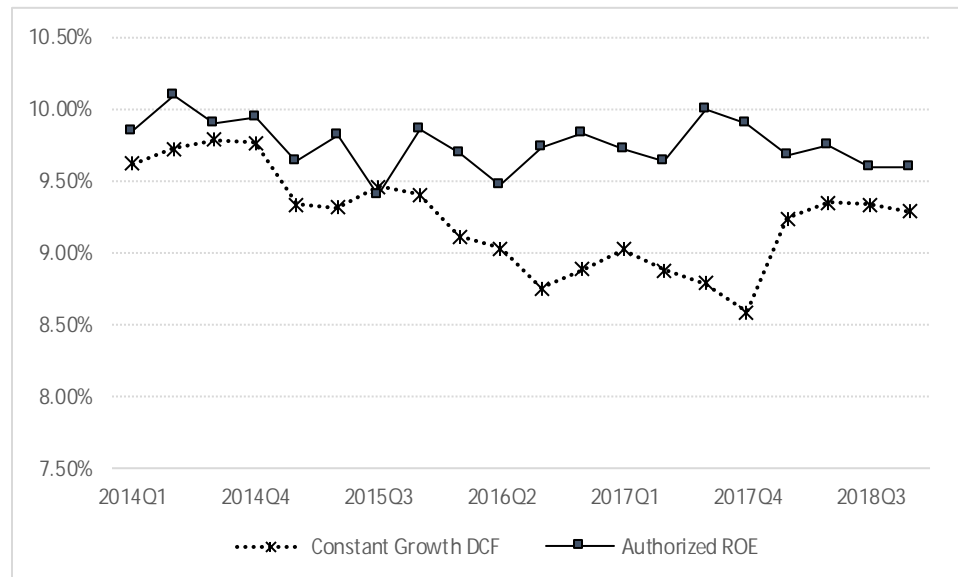
[2]   Direct Testimony of Byron S. Watson, at 44, 48–49; Direct Testimony of James M. Proctor, at 3.

[3]   Direct Testimony of Christopher C. Walters, at 49.

[4]   Direct Testimony of Richard A. Baudino, at 3.

1   has produced ROE estimates notably below the returns then authorized by regulatory

2   commissions.

3   **Chart 1: Authorized ROEs vs. DCF Estimates[5]**


4   Given their common dependence on the DCF method, it also is not surprising that

5   the Opposing Witnesses' recommendations generally fall within a narrow range. But the

6   fact that their recommendations are similar does not mean their approaches and conclusions

7   are reasonable. Even the highest of their recommendations (Mr. Walters' and Mr.

8   Baudino's 9.35 percent ROE) is 44 basis points below the average return for vertically

9   integrated electric utilities and is below all but eight ROEs authorized for vertically

10   integrated electric utilities from 2014 through February 2019[6] (*see* Chart 2, below). The

---

[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.

1   Advisors' ROE Witnesses 8.93 percent recommendation is below all authorized ROEs for

2   a vertically integrated electric utility since at least 1980.

3   **Chart 2: Vertically Integrated Authorized ROEs (2014 – 2019) [7]**
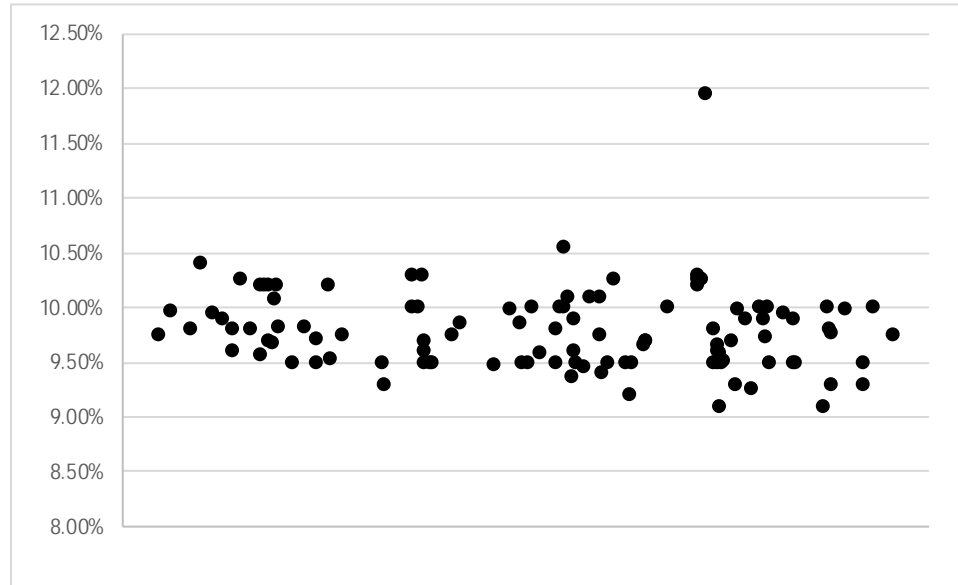
4   As discussed throughout the balance of my Rebuttal Testimony, the Opposing

5   Witnesses' recommendations cannot be supported by the reasonable application of

6   financial models, nor can they be justified by current or expected market conditions.

7   Rather, their recommendations are unduly low and if adopted, would increase ENO's

8   regulatory and financial risk, diminish its ability to compete for capital, and would increase

9   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.

1   Q7.   IS THE PRINCIPAL USE OF A SINGLE METHOD COMMON IN FINANCIAL

2   THEORY AND PRACTICE?

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

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

12

13   No one individual method provides the necessary level of precision for
14   determining a fair return, but each method provides useful evidence to
15   facilitate the exercise of an informed judgment. Reliance on any single
16   method or preset formula is inappropriate when dealing with investor
17   expectations because of possible measurement difficulties and vagaries
18   in individual companies' market data. [8]

19   Professor Eugene Brigham recommends the CAPM, DCF, and Bond Yield Plus Risk

20   Premium approaches:

21   Three methods typically are used: (1) the Capital Asset Pricing Model
22   (CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-
23   yield-plus-risk-premium approach. These methods are not mutually
24   exclusive – no method dominates the others, and all are subject to error
25   when used in practice. Therefore, when faced with the task of
26   estimating a company's cost of equity, we generally use all three
27   methods and then choose among them on the basis of our confidence in
28   the data used for each in the specific case at hand.[9]

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

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

---

[8]   Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 428.

[9]   Ibid., at 430 – 431, citing Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed., 1994, at 341.

1   information. That means you should not use any one model or measure
2   mechanically and exclusively. Beta is helpful as one tool in a kit, to be
3   used in parallel with DCF models or other techniques for interpreting
4   capital market data.

5   ***

6   While it is certainly appropriate to use the DCF methodology to estimate
7   the cost of equity, there is no proof that the DCF produces a more
8   accurate estimate of the cost of equity than other methodologies. Sole
9   reliance on the DCF model ignores the capital market evidence and
10   financial theory formalized in the CAPM and other risk premium
11   methods. The DCF model is one of many tools to be employed in
12   conjunction with other methods to estimate the cost of equity. It is not
13   a superior methodology that supplants other financial theory and market
14   evidence. The broad usage of the DCF methodology in regulatory
15   proceedings in contrast to its virtual disappearance in academic
16   textbooks does not make it superior to other methods. The same is true
17   of the Risk Premium and CAPM methodologies.[10]

18

19   Q8.   HAVE OTHER REGULATORY COMMISSIONS RECOGNIZED THE IMPORTANCE

20   OF CONSIDERING MULTIPLE METHODS IN SETTING AUTHORIZED ROES?

21   A.   Yes. For example, in Baltimore Gas and Electric Company's 2016 rate case, the Maryland

22   Public Service Commission discussed the importance of considering multiple analytical

23   methods, given the complexity of determining the investor-required ROE:

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

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[10]   Roger A. Morin, <u>New Regulatory Finance,</u> Public Utility Reports, Inc., 2006, at 430–431.

1   their own preferred methodologies.[11]

2   In its November 15, 2018 *Order Directing Briefs*, the Federal Energy Regulatory

3   Commission ("FERC") found that "in light of current investor behavior and capital market

4   conditions, relying on the DCF methodology alone will not produce a just and reasonable

5   ROE".[12] In its October 16, 2018 *Order Directing Briefs*, FERC found that although it

6   "previously relied solely on the DCF model to produce the evidentiary zone of

7   reasonableness…", it is "…concerned that relying on that methodology alone will not

8   produce just and reasonable results."[13] As FERC explained, it is important to understand

9   "how investors analyze and compare their investment opportunities."[14] FERC also

10   explained that, although certain investors may give some weight to the DCF approach,

11   other investors "place greater weight on one or more of the other methods…"[15] Those

12   methods include the CAPM and the Risk Premium method, which I have applied in this

13   proceeding.

14

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[11]   *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.

[12]   Docket Nos. EL14-12-003 and EL15-45-000, *Order Directing Briefs*, 165 FERC ¶ 61,118 (November 15, 2018) at para. 34.

[13]   Docket No. EL11-66-001, *et al.*, *Order Directing Briefs* 165 FERC ¶ 61,030 (October 16, 2018) at para. 30.

[14]   *Ibid.*, at para. 33.

[15]   *Ibid.*, at para. 35.

1 Q.   HAVE OTHER STATE REGULATORY COMMISSIONS EXPRESSED CONCERN

2   WITH DCF MODEL RESULTS?

3 A.   Yes. For example, in its July 2017 *Order Accepting Stipulation* in which it authorized a

4   9.90 percent ROE for Duke Energy Carolinas, the North Carolina Utilities Commission

5   ("NCUC") noted it "carefully evaluated the DCF analysis recommendations" of the ROE

6   witnesses (which ranged from 8.45 percent to 8.80 percent) and determined that "all of

7   these DCF analyses in the current market produce unrealistically low results."[16] Notably,

8   the range found by the NCUC to be "unrealistically low" generally overlaps Messrs.

9   Proctor's and Watson's recommended range.

10

11 Q9.   ARE THERE ASPECTS OF THE DCF MODEL THAT MAY EXPLAIN WHY

12   REGULATORY COMMISSIONS CURRENTLY DO NOT RELY PRINCIPALLY ON

13   IT WHEN DETERMINING THE COST OF EQUITY?

14 A.   Yes, the model's fundamental structure and underlying assumptions may become far

15   removed from actual market conditions and financial practice. For example, the model

16   assumes there will be no change, ever, in growth rates, dividend yields, Price/Earnings

17   ratios, Market/Book ratios, or in the economic and market conditions that support those

18   variables.   Those assumptions, however, currently do not hold. For example, firms do not

19   pay dividends at a constant dividend yield. Rather, continuous movements in stock prices,

---

[16]   State of North Carolina Utilities Commission, Docket No. E-7, Sub 1146, *In the Matter of Application of Duke Energy Carolinas, LLC, for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina*, Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, July 25, 2017.

1   coupled with "sticky" dividend policies create continuous changes in dividend yields,

2   contrary to the DCF model's assumptions.

3   The model's assumptions have become further removed from practice when current

4   capital market conditions are influenced by monetary policy that is likely to change. Since

5   the 2008/2009 financial crisis, Federal monetary policy has had a significant, intentional

6   effect on capital markets, reducing interest rates and dampening equity market volatility.

7   Those effects, however, will reverse with the "normalization" of monetary policy.[17]

8   Consequently, neither the Federal Reserve's unconventional monetary policy initiatives

9   nor the capital market conditions they supported will remain in place in perpetuity, as the

10   Constant Growth DCF model requires. On that basis alone, we should be cautious about

11   the weight given the DCF method.

12

13   Q10. ARE THERE STRUCTURAL REASONS WHY THE CONSTANT GROWTH DCF

14   MODEL MAY NOT ALWAYS PROVIDE RELIABLE ROE ESTIMATES?

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

16   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.

1
$$k= \frac{D(1+g)}{P_0}+g \ [18]$$

2   is derived from the longer-form present value formula

3
$$P_0 \ = \ \frac{D_1}{(1 + k)} \ + \ \frac{D_2}{(1 + k)^2} \ + \ \cdots \ + \ \frac{D_\infty}{(1 + k)^\infty} \ .$$

4   The model assumes investors use the present value structure to find the "intrinsic value" of

5   common stock.[19] Consequently, the DCF approach will not produce accurate estimates of

6   the market-required ROE if the market price diverges from the present value-based

7   estimate of intrinsic value. That concern is not academic; differences between market

8   prices and intrinsic valuations may arise when investors take short-term trading positions

9   to hedge risk (*e.g.*, a "flight to safety"), to speculate (*e.g.*, momentum trades), or as

10   temporary position to increase current income (*i.e.*, a "reach for yield").

11   We also know investors consider other methods, including relative valuation

12   multiples – Price/Earnings, Market/Book, Enterprise Value/EBITDA[20] – in their buying

13   and selling decisions. They do so because no single financial model produces the most

14   accurate and reliable measure of value at all times and under all conditions. The

15   implications of market prices diverging from DCF-based estimates of intrinsic value was

16   studied in an article published in the <u>Journal of Applied Finance</u>. That article, which

17   focused on back-tests of the Constant Growth DCF model, found that even under "ideal"

18   circumstances:

19   … it is difficult to obtain good intrinsic value estimates in models

---

[18]   As explained below, Mr. Watson's "Two-Step" DCF model essentially is the Constant Growth model, using a weighted average growth rate.

[19]   Revised Direct Testimony of Robert B. Hevert, at 16–17.

[20]   Earnings Before Interest, Taxes, Depreciation, and Amortization.

1   stretching over lengthy periods of time. Shorter horizon models based
2   on five or fewer years show more promise. Any model based on
3   dividend streams of ten years or more, whether as a teaching tool or in
4   practice, should be used with caution since they are likely to produce
5   low-quality estimates.[21]

6   In short, because the DCF model is derived from a valuation model that assumes constancy

7   in perpetuity, it is likely to produce less reliable ROE estimates when market conditions

8   are non-constant, and when investor practice is to consider additional, alternative valuation

9   methods. Both conditions currently hold.

10

11 Q11. IS IT YOUR VIEW THAT THE DCF MODEL SHOULD BE GIVEN NO WEIGHT IN

12   DETERMINING THE COMPANY'S COST OF EQUITY?

13 A. No, it is not. It is my view, however, that we should carefully consider the range of results

14   the model produces. As discussed later in my Rebuttal Testimony, doing so fully supports

15   my ROE range and recommendation.

16

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

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

19   • Section III – Responds to the Advisors' ROE Witnesses Mr. Proctor and Mr. Watson;

20   • Section IV – Responds to Air Products' witness Mr. Walters;

21   • Section V – Responds to CCPUG Witness Mr. Baudino;

22   • Section VI – Summarizes my updated analytical results; and

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[21] *See* P. McLemore, G. Woodward, and T. Zwirlein, *Back-tests of the Dividend Discount Model using Time-varying Cost of Equity*, <u>Journal of Applied Finance</u>, No. 2, 2015, at 19.

- Section VII – Provides my conclusions.

1

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

4   Q13.   PLEASE SUMMARIZE MESSRS. PROCTOR'S AND WATSON'S ROE ANALYSES

5   AND RECOMMENDATIONS.

6   A.   The Advisors' ROE Witnesses recommend an ROE of 8.93 percent, based on Mr. Watson's

7   "Two-Step" DCF analysis, and supported by Mr. Proctor's CAPM analysis.[22]   Mr.

8   Watson's "Two-Step" DCF analysis produces a mean result of 8.09 percent, to which he

9   adds 84 basis points, reflecting Mr. Proctor's "business risk" and flotation cost

10   adjustment.[23]   In their view, 8.93 percent is reasonable, in large measure because it falls

11   within the range of Mr. Proctor's CAPM estimates.[24]

12

13   Q14.   WHAT ARE THE PRINCIPAL AREAS IN WHICH YOU DISAGREE WITH THE

14   ADVISORS' ROE WITNESSES' ANALYSES AND CONCLUSIONS?

15   A.   The principal areas in which I disagree with the Advisors' ROE Witnesses include: (1)

16   their principal reliance on a single method to estimate the Company's Cost of Equity; (2)

17   certain criteria used to select proxy companies; (3) Mr. Proctor's CAPM analysis, and the

18   conclusions he draws from it; (4) Mr. Watson's Two-Step DCF analysis and the weight he

19   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.

1   effect of certain business risks and considerations, including the Tax Cuts and Jobs Act

2   ("TCJA"), the proposed Formula Rate Plan, and the effect of flotation costs on the

3   Company's Cost of Equity. Beyond those methodological points, I strongly disagree that

4   Messrs. Proctor's and Watson's ROE estimates, which range from 8.09 percent to 8.93

5   percent, are reasonable measures of the Company's Cost of Equity, regardless of how those

6   estimates were derived.

7   In addition, although Mr. Watson points to the FERC to support his proposed Two-

8   Step DCF method, FERC also has found that because DCF-based methods have produced

9   unreliable results, it is important to apply multiple methods in determining the ROE. Those

10   methods include the CAPM, Bond Yield Plus Risk Premium, and Expected Earnings

11   approaches. When those methods are properly applied, it becomes apparent Mr. Watson's

12   8.09 percent (unadjusted) estimate, as well as his 8.93 percent recommendation, is unduly

13   low.

14   Lastly, I strongly disagree with Mr. Watson's proposed "double leverage"

15   adjustment to the Company's capital structure. As my Rebuttal Testimony explains, Mr.

16   Watsons' proposal is internally inconsistent, counter to basic financial theory, removed

17   from regulatory practice, and would have the counterproductive effect of increasing risks

18   to investors and costs to ratepayers.

19

20   **A.   Unreasonableness of the Advisors' ROE Witnesses' Recommendation**

21   Q15. AS   A   GENERAL   MATTER,   IS   THE   8.09   PERCENT   BASE   ROE

22   RECOMMENDATION,   OR   EVEN   THE   8.93   PERCENT   ADJUSTED

1   RECOMMENDATION, A REASONABLE ESTIMATE OF THE COMPANY'S COST

2   OF EQUITY?

3   A.   No, it is not. Putting aside the many methodological issues discussed below, there simply

4   is no basis to conclude equity investors would be willing to commit their capital for the

5   opportunity to earn an 8.93 percent "risk-adjusted" return. Mr. Watson's unadjusted 8.09

6   percent ROE estimate is even less probable. Even their 8.93 percent "risk-adjusted"

7   estimate is below every return authorized for a vertically integrated electric utility since at

8   least 1980.[25]

9   The significant difference between the Advisors' ROE Witnesses' recommendation

10   and the returns available to other utilities raises very practical concerns. The Company

11   competes with other entities, including utilities, for the long-term capital needed to provide

12   utility service. Given the choice between two similarly situated utilities, one with a return

13   that falls far below industry levels, and another whose authorized return more closely aligns

14   with those available to other utilities, investors will choose the latter. Because authorized

15   returns are publicly available,[26] it is reasonable to conclude that data is reflected, at least to

16   some degree, in investors' return expectations and requirements.

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[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.

[26]   *See*, *for example*, American Electric Power Company, Inc., SEC Form 10-K for the year ended December 31, 2017, at 4; Entergy Corporation., SEC Form 10-K for the year ended December 31, 2017, at 31; WEC Energy Group, Inc., SEC Form 10-K for the year ended December 31, 2017, at 139–143; Xcel Energy, Inc., SEC Form 10-K for the year ended December 31, 2017, at 131–136.

1   Further, although they discuss credit ratings as a measure of business risk, the

2   implications of an authorized return so far removed from industry norms are considerable.

3   Putting aside the cash flow effects of an unduly low ROE, the increase in perceived

4   regulatory and business risk would be significant. As Standard & Poor's ("S&P") explains,

5   the regulatory regime is one of the most important factors in its rating analyses:

> 6 For a regulated utility company, the regulatory regime in which it
> 7 operates will influence its performance in profound ways. As such,
> 8 Standard & Poor's Ratings Services' regulatory advantage assessment -
> 9 - which informs both our business and financial risk scores - - is one of
> 10 the most important factors in our credit analysis of regulated utilities.[27]

11   As S&P also explains, regulatory advantage is "the most heavily weighted factor when

12   S&P Global Ratings analyzes a regulated utility's business risk profile."[28] S&P further

13   notes that:

> 14 The foundation of our opinion of a jurisdiction is the stability of its
> 15 approach to regulating utilities, encompassing transparency,
> 16 predictability, and consistency. Given the maturity of the U.S. investor-
> 17 owned utility industry, the long history of utility regulation (going back
> 18 to the early 20th century) and the well-established constitutional
> 19 protections accorded to utility investments, we emphasize the principle
> 20 of consistency when weighing regulatory stability. We also incorporate
> 21 the degree to which the regulatory framework either explicitly or
> 22 implicitly considers credit quality in its design.[29]

23   Among S&P's principal considerations in assessing regulatory advantage is "regulatory

24   stability", which includes three subfactors:

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[27]   Standard & Poor's Ratings Services, *How Regulatory Advantage Scores Can Affect Ratings On Regulated Utilities*, April 23, 2015, at 2.

[28]   S&P Global Ratings, *Assessing U.S. Investor-Owned Utility Regulatory Environments*, August 10, 2016, at 2.

[29]   *Ibid*.

1   • Transparency of the key components of the rate setting and how these are
2   assessed;

3   • Predictability that lowers uncertainty for the utility and its stakeholders; and

4   • Consistency in the regulatory framework over time.[30]

5   In a similar fashion, Moody's explains that its ratings are based on assessments of

6   multiple factors, 50.00 percent of which relate to the nature of regulation. Even if we

7   consider cash flow-related metrics, in aggregate those factors are given 40.00 percent

8   weight (*see* Chart 3, below).

9   **Chart 3: Moody's Ratings Criteria[31]**
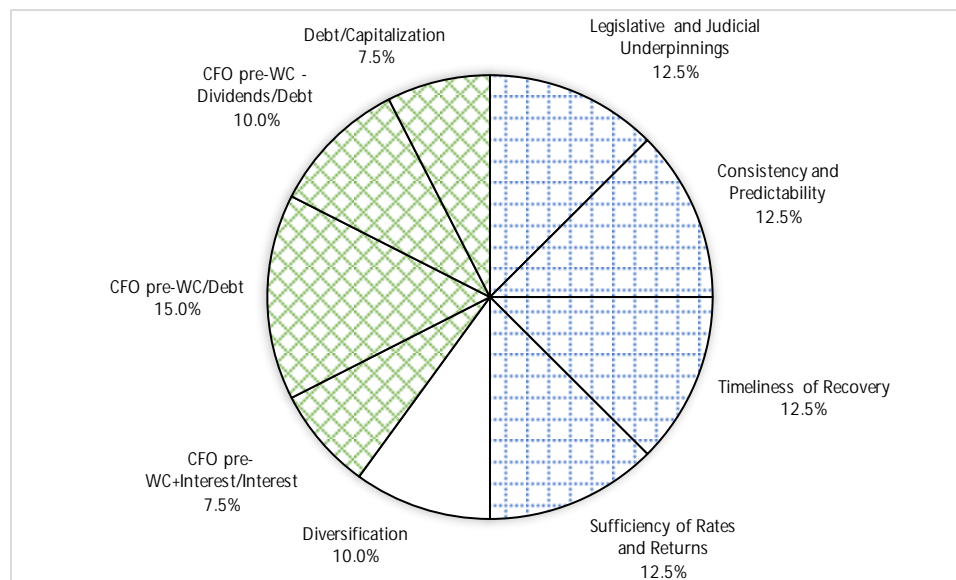
10   In summary, although the Advisors' ROE Witnesses discuss credit ratings as a

11   measure of equity risk, they do not discuss the implications of their recommendations for

12   the Company's credit profile.[32] In my view, if the City Council were to adopt the Advisors'

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[30]   *Ibid.*

[31]   Moody's Investors Service, *Regulated Electric and Gas Utilities*, June 23, 2017, at 4.

[32]   I address certain cash flow-related credit metrics later in my Rebuttal Testimony.

1   ROE Witnesses' recommendation, investors would assess a heightened degree of

2   regulatory risk, and would require higher returns for that risk, to the long-term detriment

3   of customers. That is especially the case, and it is especially concerning, given the

4   Company's below investment grade rating from Moody's.

5   Regardless of its derivation, I do not believe the Advisors' ROE Witnesses' 8.93

6   percent recommendation meets *Hope* and *Bluefield* "financial integrity", "comparable

7   risk", "capital attraction" and "end result" standards.[33]   The Company's below investment

8   grade from Moody's distinguishes it from others in Mr. Proctor's (and, therefore, Mr.

9   Watson's) proxy group. If credit ratings were proper measures of equity risk, there would

10   be no reasonable means of reconciling a below investment grade rating with an ROE so far

11   below those available to other electric and natural gas utilities, as the *Hope* and *Bluefield*

12   standards require.

13

14   **B.   Principal Reliance on a Single Method**

15   Q16. SHOULD A SINGLE METHOD, IN THIS CASE THE TWO-STAGE DCF MODEL, BE

16   GIVEN PRINCIPAL WEIGHT IN SETTING THE COMPANY'S RETURN ON

17   EQUITY?

18   A.   No, it should not. As explained in Section II, doing so is inconsistent with finance theory

19   and practice, as well as with decisions reached by regulatory commissions over the past

20   several years. As Chart 1 (above) demonstrates, since 2014 the Constant Growth DCF

21   model has produced ROE estimates consistently and meaningfully below returns then-

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[33]   *See* Revised Direct Testimony Robert B. Hevert, at 8–11.

1   authorized by regulatory commissions. Chart 4 (below) replicates Chart 1 and includes the

2   results of FERC's two-step DCF method.

3   **Chart 4: Authorized ROEs vs Constant Growth and Two-Step DCF Estimates[34]**
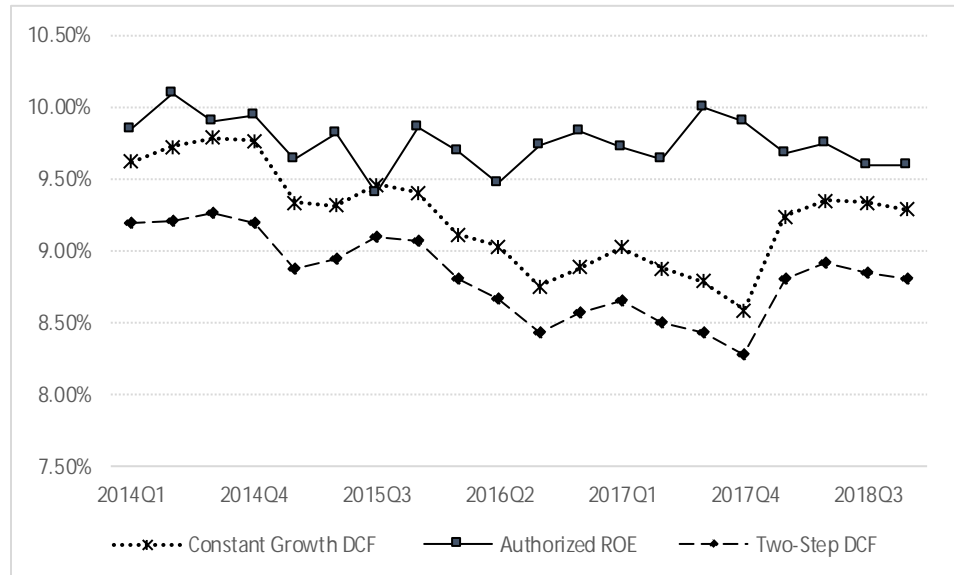
4   Q17.   LASTLY, WHAT IS YOUR RESPONSE TO MR. PROCTOR'S OBSERVATION

5   REGARDING THE RANGE OF YOUR ANALYTICAL RESULTS?

6   A.   Table No. 2 to Mr. Proctor's testimony (at page 49) provides the results of my three

7   methods, which run from a low of 8.37 percent to a high of 12.28 percent, a range of 391

8   basis points. Although Mr. Proctor is concerned with that variability, Mr. Watson's "two-

9   step" DCF results span from a low of 5.74 percent to a high of 10.64 percent,[35] a range of

10   490 basis points. That is, the 391-basis point range that concerns Mr. Proctor[36] is 99 basis

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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.

1   points less than Mr. Watson's range. If my range of results is a "concern" for Mr. Proctor,

2   it seems that concern would extend to Mr. Watson's results.

3   **C.   Proxy Group Selection**

4   Q18. BEFORE RESPONDING TO MR. WATSON'S DISCUSSION OF INDIVIDUAL

5   PROXY COMPANIES, DOES THE DIFFERENCE IN YOUR RESPECTIVE PROXY

6   GROUPS EXPLAIN THE DIFFERENCE IN YOUR ROE RECOMMENDATIONS?

7   A.   No, it does not. Although the Advisors' ROE Witnesses' recommendation is unduly low,

8   the composition of their proxy group is not the principal reason for that result. I also

9   appreciate that analysts may have reasonable differences in screening criteria, and how

10   those criteria are applied. Consequently, many of the analyses discussed below are based

11   on the Advisors' ROE Witnesses' respective proxy groups.

12   That said, Messrs. Proctor and Watson bring up certain points, including their focus

13   on credit ratings as a screening criterion and a direct measure of equity risk, that affect

14   other aspects of their conclusions. In particular, they argue their recommendation is

15   reasonable by reference to their proxy group's average credit rating (BBB+).[37] Their use

16   of credit ratings in that fashion raises three concerns.

17   First, credit notches within the investment grade rating category are not direct

18   measures of differences in equity risk. Second, if the Company is no less risky than its

19   peers, as Mr. Proctor's reference to S&P's credit ratings suggests, there is no reason why

20   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.

1   rated utilities.   Not only would that result be contrary to the *Hope* and *Bluefield*

2   "comparable risk" standard, it would be inconsistent with the risk/return relationship

3   integral to the one method Mr. Proctor applied, the Capital Asset Pricing Model. Lastly,

4   the Company's below investment grade rating from Moody's (1) distinguishes it from all

5   other companies in Mr. Watson's proxy group, (2) supports my approach to screening

6   proxy companies based on investment grade credit ratings, and (3) argues for an ROE

7   above, not significantly below, its peers.

8

9   Q19.   HOW DOES MR. WATSON USE CREDIT RATINGS AS A SCREENING CRITERION,

10   AND HOW DOES HIS APPROACH DIFFER FROM YOURS?

11   A.   Mr. Watson's screening criteria require proxy companies to have an issuer credit rating

12   (from Standard & Poor's) within one "notch" of the Company's BBB+ rating.[38] Mr.

13   Watson suggests "…credit ratings, as generated by companies such as Moody's Investors

14   Service ("Moody's") and Standard & Poor's Financial Services LLC Rating's Direct ("S&P")

15   seek to score companies such as ENO and other utilities as to their risks on a consistent and

16   comparable scale."[39] He concludes that "…when identifying companies having corresponding

17   risks and uncertainties as has ENO, comparable issuer credit ratings are an appropriate metric

18   for corresponding risks."[40]

19   As Mr. Watson points out, my approach is different; I require proxy companies to

20   have investment grade credit ratings, regardless of whether those ratings are within one

---

[38]   Direct Testimony of Byron S. Watson, at 26–27.

[39]   *Ibid*., at 25.

[40]   *Ibid*.

1   "notch" of the subject company. I do so for two reasons. First, utilities, including Mr.

2   Watson's proxy companies, tend to have high proportions of institutional ownership.[41] In

3   my experience, investment guidelines for institutional investors focus on investment grade

4   entities, not entities within one notch of a given company. Because institutional investors

5   own large percentages of utility equity securities, it is appropriate to reflect their investment

6   criteria in our screening process.

7   Second, much like Mr. Watson, Mr. Proctor argues the credit rating screen "is

8   appropriate because such screening will allow the Council useful information regarding the

9   required returns on companies having comparable credit risks to that of ENO."[42] I disagree

10   with the premise that differences in credit ratings are direct measures of differences in risks

11   faced by equity investors. As discussed above, from an equity investor's perspective the

12   critical issue is whether the subject company is above or below investment grade.

13   Lastly, neither Mr. Proctor nor Mr. Watson adequately reflect the Company's below

14   investment grade credit rating (from Moody's). Although Mr. Watson acknowledges the Ba1

15   rating Moody's assigns the Company, he seems to discount its importance, noting that but for

16   the Company's "small and concentrated service territory in a low-lying coastal region", the

17   Company would have been rated "A2".[43]

18

19   Q20.   WHY DO YOU BELIEVE DIFFERENCES IN INVESTMENT GRADE RATINGS ARE

20   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.

1   A.   First, credit ratings are opinions regarding the subject company's capacity to pay its

2   financial obligations as they come due and payable. As S&P notes:

3   An S&P Global Ratings issuer credit rating is a forward-looking opinion
4   about an obligor's overall creditworthiness. This opinion focuses on the
5   obligor's capacity and willingness to meet its financial commitments as
6   they come due.[44]

7   Credit ratings therefore speak to overall creditworthiness from the perspective of

8   debtholders, who are promised a series of specified coupon payments over the term of the

9   bond, and who have a contractual right to receive the bond's par value at maturity. Equity

10   investors receive no such promises; they hold a security that never matures, and receive no

11   repayment of principal by the issuing firm. Moreover, the amount and timing of dividends

12   are at the firm's sole discretion.   Equally important, equity investors are the residual

13   claimant on the firm's cash flows, with a liquidation preference subordinate to

14   bondholders. Simply put, shareholders bear greater risk than do bondholders in the same

15   firm. So, while credit ratings may be measures of the business and financial risks to which

16   debt investors are exposed, they are not full measures of risks to equity investors, and we

17   cannot draw firm inferences for one from the other.[45]

18

19   Q21.   HAVE YOU REVIEWED THE RELATIONSHIP BETWEEN MR. WATSON'S TWO-

20   STEP DCF RESULTS AND CREDIT RATINGS FOR HIS PROXY COMPANIES?

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[44]   https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352

[45]   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."

1   A.   Yes, I have. If it is the case that one-notch differences in credit ratings are measures of

2   differences in equity risk, those differences should be reflected in the DCF results. That

3   is, companies with lower credit ratings should have higher DCF results; the converse also

4   should be true. To test that relationship, I performed a regression analysis in which the

5   dependent variable was the DCF result and the explanatory variable was the credit score

6   (*i.e.*, Mr. Watson's "S&P Notches Below AAA" score[46]). The regression analysis showed

7   no significant statistical relationship between the two. In fact, the R-squared of the

8   regressions was only 0.03, which indicates that credit ratings accounted for, at most, 3.00

9   percent of the change in the DCF-estimated Cost of Equity.[47]

10

11 Q22. WHAT CONCLUSIONS DO YOU DRAW FROM THAT ANALYSIS?

12 A.   Mr. Watson's Two-Step DCF analysis results have no meaningful relationship to credit

13   ratings, and do not support his position that differences in credit rating notches are

14   measures of differences in the Cost of Equity.   Equally important, the Two-Step DCF

15   analysis do not reasonably reflect the incremental return required by equity investors for a

16   below investment grade company, such as ENO.[48]

17

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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.

1   Q23.   LASTLY, DO YOU HAVE ANY OBSERVATIONS REGARDING MR. WATSON'S

2   REVIEW OF SPECIFIC PROXY COMPANIES?

3   A.   Yes, I do. Although I appreciate there may be reasonable differences in screening methods,

4   there are fact-specific points I would like to address. For example, Mr. Watson suggests I

5   should have included Unitil, Inc., because it is included in Value Line's Electric Utility

6   (East) universe, and because I have testified on behalf of Unitil companies in other rate

7   proceedings.[49] As to Mr. Watson's first point, although Value Line does include Unitil in

8   its Electric Utility universe, it does not provide projected Earnings Per Share growth rates

9   for Unitil, which are used in my DCF analyses. Regarding his second point, the fact that I

10   have testified on behalf of Unitil in other cases has no bearing on whether I consider it an

11   appropriate proxy in this case. In each case, I develop the proxy group by reference to the

12   subject company, not by reference to companies on whose behalf I have submitted

13   testimony. The same applies to Mr. Watson's observation that I have testified on behalf of

14   FortisAlberta in a hearing before the Alberta Utility Commission[50] – it has no bearing on

15   how I would select a proxy group in this proceeding.

16   Mr. Watson's observations regarding Public Service Enterprise Group ("PSEG") is

17   an example of how we consider the same data source, but arrive at different conclusions.

18   Mr. Watson does not seem to disagree that PSEG's Power segment reported operating

19   income of negative $359 million in 2017, but positive operating income of $13 million,

20   and $1.43 billion in 2016 and 2015, respectively.[51] 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

26

1   that requires consideration in determining whether the company is a suitable proxy. In my

2   view, it is important to consider whether a single year's negative unregulated operating

3   income (which increases the portion of regulated operating income) reasonably represents

4   investors' views of the segment's long-term prospects. That is an area in which my

5   judgment differs from Mr. Watson's. I do not believe the analysis necessarily lends itself

6   to the "formulaic application" of criteria, as Mr. Watson suggests.[52]

7   Further, the fact that PSEG's Power segment was formed in response to regulatory

8   restructuring in New Jersey does not change the fact that it "integrates the operations of its

9   merchant nuclear and fossil generating assets with its power marketing businesses and fuel

10   supply functions through competitive energy sales in well-developed energy markets."[53]

11   It is a merchant (unregulated) segment and should be considered as such.[54]

12   Lastly, I disagree with Mr. Watson that Avangrid, Inc. ("Avangrid") should be

13   excluded from the proxy group. Avangrid meets my all my screening criteria. It also meets

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89.

[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.

1   all Mr. Watson's screening criteria.[55] Further, Avangrid's risk measures, as reported by

2   Value Line, are comparable to the companies in my and Mr. Watson's proxy groups.[56]

3   Avangrid is a publicly traded company[57] with two business segments: (1) Avangrid

4   Networks, which represents the U.S. regulated electric and natural gas utility operations

5   that serve 3.20 million customers in New York and New England; and (2) Avangrid

6   Renewables, which owns and operates renewable electricity capacity across 22 states.[58]

7   The regulated utility operations of Avangrid Networks account for 83.00 percent of

8   Avangrid's 2017 operating revenues, and more than 100.00 percent of its net income.[59]

9   Consequently, Avangrid's regulated operations represent a vast majority of total company

10   operations. Although its ultimate parent Iberdrola, S.A. ("Iberdrola"), owns approximately

11   81.60 percent of the outstanding common stock, Avangrid's stock price reflects the risks

12   associated with Avangrid's operations, not Iberdrola's. For these reasons, I believe it is

13   reasonable to include Avangrid in the proxy group.

14

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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.

[56]   Source: Value Line Investment Survey as of February 28, 2019.

[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.

[58]   Avangrid, Inc. SEC Form 10-K for the Year Ended December 31, 2017, at 6.

[59]   Avangrid, Inc. SEC Form 10-K for the Year Ended December 31, 2017, at 62.

1   **D.   Capital Asset Pricing Model**

2   Q24.   PLEASE SUMMARIZE MR. PROCTOR'S CAPM ANALYSES.

3   A.   Mr. Proctor provides two CAPM analyses, which vary based on his assumed risk-free rate.

4   In each case, he begins with the long-term arithmetic average return on large capitalization

5   stocks, as reported by Duff & Phelps. Mr. Proctor's calculations, which produce CAPM

6   estimates of 6.68 percent and 7.57 percent, are presented in Table 2, below.

7   **Table 2: Mr. Proctor's CAPM Estimates[60]**

	Arithmetic Mean	
Large-Cap Stocks	12.10%	12.10%
Long-term Gov't Bonds	6.00%	-
U.S. Treasury Bills	-	3.40%
Market Risk Premium	6.10%	8.70%
Beta Coefficient	0.59	0.59
Equity Risk Premium	3.62%	5.16%
Risk-Free Rate	3.06%	2.41%
Return on Equity	6.68%	7.57%

8   As Table 2 indicates, Mr. Proctor's analyses reflect two estimates of the risk-free rate: 3.06

9   percent (the current 30-year Treasury Bond yield), and 2.41 percent (the current 13-week

10   Treasury Bill yield).

11

12   Q25.   ARE THE 6.68 PERCENT AND 7.57 PERCENT ESTIMATES MR. PROCTOR'S

13   EVENTUAL CAPM RECOMMENDATION?

14   A.   No, they are not. As discussed below, Mr. Proctor focuses on the 7.57 percent result, which

15   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, <u>2018 SBBI Yearbook</u>, at 6-17.

1   incremental business risks (81 basis points), and the effect of common stock flotation costs

2   (three basis points).

3

4   ***Reasonableness of Mr. Proctor's CAPM Result***

5   Q26.   BEFORE DISCUSSING YOUR METHODOLOGICAL CONCERNS WITH MR.

6   PROCTOR'S APPROACH, DO YOU HAVE ANY GENERAL OBSERVATIONS

7   REGARDING HIS CAPM ESTIMATES?

8   A.   Yes, I do. In Table No. 1 (page 19) of his Testimony, Mr. Proctor provides "Summary

9   Statistics of Annual Total Returns" from 1960 through 2017 for several asset classes,

10   including large (capitalization) stocks, long-term Government bonds, intermediate-term

11   Government bonds, and U.S. Treasury bills. He presents the arithmetic mean and standard

12   deviation of annual returns for each, referring to the standard deviation as the "best measure

13   of risk".[61]

14   Plotting Mr. Proctor's data in risk/return space, we see a very strong relationship

15   between the two. In fact, the standard deviation explains about 97.50 percent of the change

16   in the annual (arithmetic) average return (the R^2 is about 0.975; *see*, Chart 5, below).[62] We

17   can use that relationship to assess the reasonableness of Mr. Proctor's CAPM estimates in

18   the following manner. First, based on Mr. Proctor's proposition that historical risks and

19   returns are the best measure of expected risks and returns,[63] 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.

1   line in Chart 5 expresses the market's expectations of both. Under that construct, any return

2   falling below the line does not sufficiently compensate investors for expected risk (it is

3   considered "inefficient"). At issue, therefore, is where Mr. Proctor's CAPM results fall in

4   the risk/return space his data provides.

5   To make that determination, I began with Mr. Proctor's observation that the

6   Company's S&P credit rating (BBB+) "falls within the range of [the] proxy group."[64]

7   Based on data provided by S&P Global Market Intelligence, I found the average S&P issuer

8   credit rating within the utility sector (including electric and gas utilities) currently is

9   BBB+.[65] It therefore follows that Mr. Proctor's CAPM estimates would apply to the broad

10   utility sector. To pair Mr. Proctor's CAPM estimates with the standard deviation of returns,

11   I calculated the standard deviation of annual total return on the Dow Jones Utility average

12   from 1928 through 2018, which I found to be about 20.60 percent (*see*, Chart 5, below).[66]

13   Combining that standard deviation with Mr. Proctor's CAPM results makes clear

14   his estimates are too low to be reasonable. A rational investor would not accept a return

15   so far below those expected of comparable-risk assets. Taking the analysis a step further,

16   if the market is efficient, the return on utility investments would have to increase well

17   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).

1   return would require a lower market price, a disadvantageous result for utilities requiring

2   continuing and efficient access to capital markets.

3   **Chart 5: Mr. Proctor's CAPM Estimate in Risk/Return Space[67]**
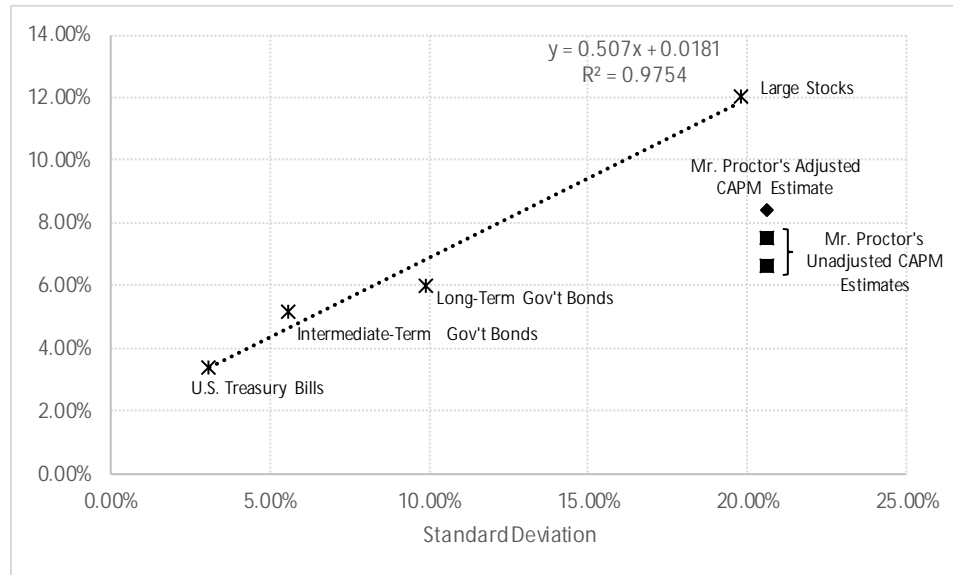
4   As Chart 5 demonstrates, Mr. Proctor's CAPM estimates, even adjusted for "business risk",

5   fall far below the line indicating the historical risk/return relationship.   His estimates

6   therefore provide too little return in exchange for taking on too much risk; it is "dominated"

7   by more efficient alternatives.

8

9   *Risk-Free Rate of Return*

10   Q27.   WHY DO YOU DISAGREE WITH MR. PROCTOR'S USE OF THE 13-WEEK

11   TREASURY BILL YIELD AS A MEASURE OF THE RISK-FREE RATE?

12   A.   As explained in my Revised Direct Testimony, the security used as the risk-free rate should

13   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.

1   investments".[68] Mr. Proctor disagrees with that approach, and did not consider his CAPM

2   results based on the 30-year Treasury yield.

3

4   Q28.   ON WHAT BASIS DOES MR. PROCTOR PREFER THE 13-WEEK TREASURY BILL

5   OVER THE 30-YEAR TREASURY BOND?

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

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

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

16   susceptible to inflation risk.

17   As to utility equity representing a long-duration investment, Mr. Proctor believes

18   my position simply is "wrong".[70] He argues that "[u]nlike for a bond, investments in an

19   electric utility's common equity do not have stated maturity dates", and that "[a]n investor

20   in an electric utility may hold its investment for 5 minutes, 30 years, or any time frame in

21   between."[71]

22

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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.

1   Q29.   DO YOU AGREE WITH MR. PROCTOR ON THAT POINT?

2   A.   No, I do not.   The proper tenor of the risk-free rate depends on the *duration* of the

3   underlying security, not a given investor's holding period.[72]   That position is well-

4   established and widely applied. As noted by Morningstar, the source on which Mr. Proctor

5   relies for the Market Risk Premium component of the CAPM:

6   The traditional thinking regarding the time horizon of the chosen
7   Treasury security is that it should match the time horizon of whatever is
8   being valued. When valuing a business that is being treated as a going
9   concern, the appropriate Treasury yield should be that of a long-term
10   Treasury bond. Note that the horizon is a function of the investment,
11   not the investor. *If an investor plans to hold stock in a company for only*
12   *five years, the yield on a five-year Treasury note would not be*
13   *appropriate since the company will continue to exist beyond those five*
14   *years.*[73]

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

16   "[i]n theory, when determining the risk-free rate and the matching [Equity Risk Premium]

17   you should be matching the risk-free security and the [Equity Risk Premium] with the

18   period in which the investment cash flows are expected."[74]   The Chartered Financial

19   Analyst program likewise notes the risk-free rate used in the CAPM should match the

20   timing of the expected asset's cash flows:

21   A risk-free asset is defined here as an asset that has no default risk. A
22   common proxy for the risk-free rate is the yield on a default-free
23   government debt instrument. In general, the selection of the appropriate
24   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., <u>2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook</u>, at 44. [emphasis added]

[74]   Shannon Pratt and Roger Grabowski, <u>Cost of Capital: Applications and Examples</u>, 3rd Ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2008), at 92. [clarification added]

1   If we are evaluating a project with an estimated useful life of 10 years,
2   we may want to use the rate on the 10-year Treasury bond.[75]

3   As these sources agree, it is the duration of cash flows, not the investor's holding period,

4   that determines the proper risk-free rate.

5

6   Q30.   PLEASE EXPLAIN THE TERM "DURATION" AND HOW IT IS USED IN PRACTICE.

7   A.   In finance, "duration" (whether for bonds or equity) typically refers to the present value

8   weighted time to receive a given security's cash flows. In terms of its practical application,

9   duration is a measure of the percentage change in the market price of a given stock in

10   response to a change in the implied long-term return of that stock. A common investment

11   strategy is to "immunize" the portfolio by matching the duration of investments with the

12   term of the underlying asset in which the funds are invested, or the term of a liability being

13   funded.

14   Using Mr. Watson's Two-Step DCF method, I was able to calculate the equity

15   duration of the companies in his proxy group. As demonstrated in ENO Exhibit RBH -22,

16   the mean and median equity duration for Mr. Watson's proxy group is about 30 years.

17   Although the current duration of 30-year Treasury bonds is 20 years,[76] it provides the

18   longest available duration and, therefore, is the proper security for his CAPM analyses. I

19   therefore continue to believe it is appropriate to use the long-term (*i.e.*, 30-year) Treasury

20   yield as the measure of the risk-free rate.

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[75]   2011 CFA Curriculum Level I, Volume 4 at 52.

[76]   *See* ENO Exhibit RBH-23.

1   Q31.   DO MR. PROCTOR'S OBSERVATIONS REGARDING INTEREST RATE AND

2   INFLATION RISK CHANGE YOUR POSITION?

3   A.   No, they do not. If Mr. Proctor is concerned with those risks, he should use the shortest-

4   term Treasury security, the four-week Treasury bill, as the risk-free security.[77] Because he

5   does not, Mr. Proctor may consider the issue as a matter of degree, recommending the 13-

6   week Treasury yield simply because it is a shorter-term security than the 30-year bond. As

7   discussed above, however, the relevant perspective is duration matching, not the maturity

8   of a given Treasury security in isolation.

9

10   Q32.   PUTTING ASIDE THE ISSUE OF EQUITY DURATION, DOES MR. WATSON'S DCF

11   MODEL RECOGNIZE THE PERPETUAL NATURE OF EQUITY?

12   A.   Yes, it does. As Mr. Watson correctly observes, his DCF model assumes an infinite

13   horizon.[78] If it did not, the model would produce implausibly low results. As shown in

14   ENO Exhibit RBH-24, for example, an assumed holding period of five years produces

15   mean and median ROE estimates of about negative 38.00 percent; a ten-year holding period

16   produces an expected ROE of about negative 12.70 percent. The only way Mr. Watson's

17   DCF results can be realized is if the shares were sold at the end of those holding periods,

18   and the prices at which they are sold reflect cash flows in perpetuity (*see*, ENO Exhibit

19   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.

1   because the longest-dated Treasury security is 30 years, that is the appropriate term for this

2   purpose.

3

4   *Market Risk Premium*

5   Q33.   PLEASE   BRIEFLY   SUMMARIZE   HOW   MR.   PROCTOR   ESTIMATED   THE

6   EXPECTED MARKET RISK PREMIUM.

7   A.   Mr. Proctor's two Market Risk Premium estimates begin with the long-term arithmetic

8   average return on large capitalization stocks, as provided by Duff & Phelps, from which

9   he subtracts the total return on long-term Government securities, and the 13-week Treasury

10   Bill yield.[79]

11

12   Q34.   DO YOU AGREE WITH MR. PROCTOR'S USE OF HISTORICAL ESTIMATES OF

13   THE MARKET RISK PREMIUM?

14   A.   No, I do not. The Market Risk Premium represents the additional return required by equity

15   investors to assume the risks of owning the "market portfolio" of equity relative to long-

16   term Treasury securities. As with other elements of Cost of Equity analyses, the Market

17   Risk Premium is meant to be a forward-looking parameter. Relying on a Market Risk

18   Premium calculated using historical returns may produce results that are inconsistent with

19   investor sentiment and current conditions in capital markets. The fundamental analytical

20   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).

1   risk-free rate, Beta, and the Market Risk Premium) are consistent with market conditions

2   and investor expectations. As, Morningstar observes:

3   It is important to note that the expected equity risk premium, as it is used
4   in discount rates and cost of capital analysis, is a forward-looking
5   concept. That is, the equity risk premium that is used in the discount rate
6   should be reflective of what investors think the risk premium will be
7   going forward.[80]

8   I also disagree with Mr. Proctor's view that the Market Risk Premium is static over

9   time and across capital market environments.[81] Longstanding financial research has shown

10   the Market Risk Premium to vary over time and with market conditions. French, Schwert,

11   and Stambaugh, for example, found the Market Risk Premium to be positively related to

12   predictable market volatility.[82]   Using forward-looking measures of the expected market

13   return, Harris and Marston found "…strong evidence…that market risk premia change over

14   time and, as a result, use of a constant historical average risk premium is not likely to mirror

15   changes in investor return requirements."[83] Among their findings is that the Market Risk

16   Premium is inversely related to Government bond yields. That is, as interest rates fall, the

17   Market Risk Premium increases. Unlike Mr. Proctor's position, financial researchers have

18   found the Market Risk Premium to be time-varying, and a function of economic parameters

19   including interest rates.[84]

---

[80]   Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 53.

[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."

[82]   Kenneth R. French, G. William Schwert, Robert F. Stambaugh, *Expected Stock Returns and Volatility*, Journal of Financial Economics 19 (1987), at 27.

[83]   Robert S. Harris, Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts,* Financial Management, Summer 1992, at 69.

[84]   As explained in my Revised Direct Testimony at 36–37, there is a similar negative relationship between

1   Q35.   WHAT DO YOU CONCLUDE FROM THOSE ANALYSES?

2   A.   The principal conclusion is that the Market Risk Premium is not static, but changes over

3   time and inversely to the level of Treasury yields. That finding is important, if only because

4   the current Treasury yield remains below the 6.00 percent yield that underlies Mr. Proctor's

5   Market Risk Premium calculation (based on 30-year yields).

6

7   Q36.   DO YOU AGREE WITH MR. PROCTOR'S USE OF THE TOTAL RETURN ON

8   LONG-TERM GOVERNMENT BONDS IN CALCULATING THE MARKET RISK

9   PREMIUM?

10   A.   No, I do not. As Duff & Phelps points out, the total return on a security is composed of

11   three components: (1) the income return; (2) capital gains (or capital losses, if the value of

12   the security falls); and (3) reinvestment return.[85]   The income return is generally defined

13   as the coupon, or interest rate on the security, which does not change over the life of the

14   security. In contrast, the value of the security rises or falls as interest rates change, resulting

15   in uncertain capital gains. Because the income return is the only "riskless" component of

16   the total return, it is the measure that should be used in calculating the Market Risk

17   Premium.

18

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interest rates and the Equity Risk Premium.

[85]   Duff & Phelps, 2018 SBBI Yearbook, at 2-7.

1   Q37.   LASTLY, MR. PROCTOR BELIEVES YOUR FORWARD-LOOKING MARKET RISK

2   PREMIUM ESTIMATE IS TOO HIGH, LARGELY BECAUSE IT IS GREATER THAN

3   HISTORICAL EXPERIENCE.[86] WHAT IS YOUR RESPONSE TO MR. PROCTOR ON

4   THAT POINT?

5   A.   I disagree. First, as explained above, contrary to Mr. Proctor's view, longstanding

6   published research has shown the Market Risk Premium to be time-varying, and a function

7   of variables such as expected volatility, and interest rates. Mr. Proctor's position that an

8   expected Market Return, or Market Risk Premium, should only be assessed by reference

9   to historical data is misplaced.[87] That aside, as discussed in my response to Mr. Walters,

10   my market risk premium estimates are consistent with historical observations and have

11   occurred roughly half the time (*see* Chart 21, below) between 1926 and 2017.[88]

12   Second, the method I applied to estimate the expected market return is consistent

13   with academic research, for example, by Harris and Marston.[89] It is a reasonable method,

14   used by finance researchers to understand the factors affecting the Market Risk Premium.

15

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[86]   Direct Testimony of James M. Proctor, at 55–56.

[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.

[88]   *See* ENO Exhibit RBH-31.

[89]   Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts Forecasts*, Darden Graduate School of Business, University of Virginia, Working Paper No. 99-08, (1999).

1   *Constancy of Beta Coefficients*

2   Q38.   AT PAGE 33 OF HIS TESTIMONY MR. PROCTOR REFERS TO CHANGES IN BETA

3   COEFFICIENTS, ARGUING THAT THOSE CHANGES PROVIDE "ADDITIONAL

4   EVIDENCE BUSINESS RISK IS DECREASING." WHAT IS YOUR RESPONSE TO

5   MR. PROCTOR ON THAT POINT?

6   A.   I agree with Mr. Proctor's observation, but disagree with the conclusion he draws from it.

7   As discussed in my Revised Direct Testimony, Beta coefficients reflect two components:

8   (1) the volatility of the subject company's returns relative to the overall market's return

9   volatility, and (2) the correlation in returns between the subject company and the overall

10   market.[90] Looking at those individual parameters, since 2013 the correlation between Mr.

11   Proctor's proxy group and the S&P 500 has declined, but the relative volatility has

12   increased (*see*, Chart 6, below).

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[90]   Revised Direct Testimony of Robert B. Hevert, at 31.

1   **Chart 6: Components of Beta Coefficients Over Time**[91]
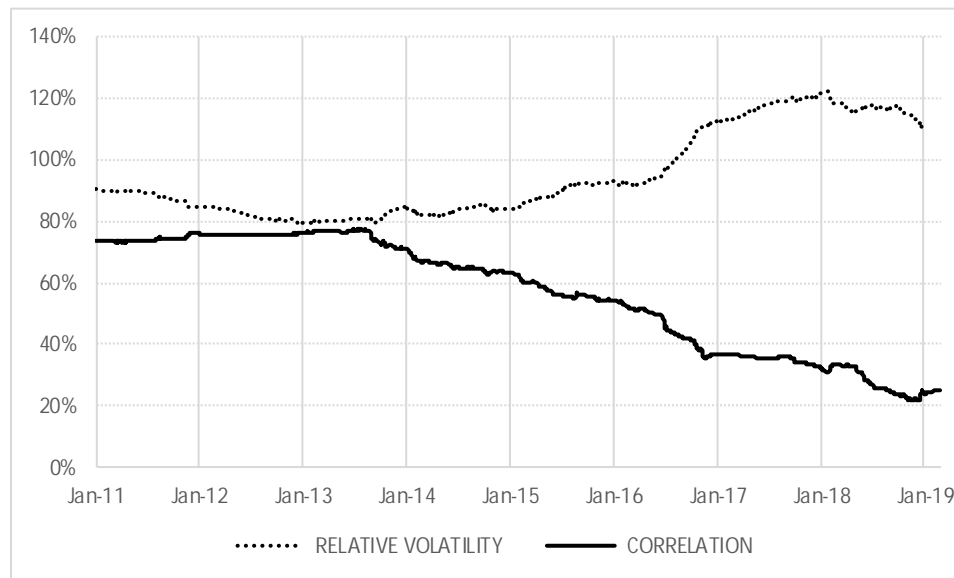
2   Q39.   WHAT CONCLUSIONS DO YOU DRAW FROM THAT DATA?

3   A.   In reviewing historical market data, Mr. Proctor observes that "[e]conomic and financial

4   literature and experts consider the standard deviation of returns on investment to be the

5   best measure of risk."[92] By that standard, risk for utility investors has been increasing

6   relative to the overall market (that is, relative volatility has increased). As Chart 6

7   demonstrates, the downward movement in Beta coefficients is related to the decrease in

8   correlation coefficients, not a decrease in the relative volatility of utility returns.

9   At issue, then is why correlations have fallen, and whether we should view that

10   change as a measure of investors' long-term expectations. As noted earlier, beginning in

11   2012 the Federal Reserve began its third round of Quantitative Easing, which was meant

12   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.

1   been to encourage investors, at times, to "reach for yield" by investing in dividend-paying

2   sectors, such as utilities. When macroeconomic conditions evolved such that interest rates

3   began to increase or other growth-based sectors appeared more appealing, investors rotated

4   out of the utility sectors.

5   Similarly, because (as discussed in my Revised Direct Testimony)[93] utilities faced

6   downward credit pressure due to the TCJA, and because they could not benefit from the

7   TCJA in ways other sectors could, utilities became relatively less attractive. In short, since

8   2012 federal policies affected trading decisions in ways that have caused the utility sector's

9   correlation with the overall market to fall, causing the decline in Beta coefficients Mr.

10   Proctor observes. As discussed in my Revised Direct Testimony, those policies now are

11   being "normalized".[94]

12   The question is whether the currently low Beta coefficients adequately reflect

13   expected systematic risk and, therefore, required returns. As discussed below, published

14   research has found low-Beta coefficient companies (such as utilities) have tended to earn

15   returns greater than those predicted by the CAPM. Consequently, the relatively low Beta

16   coefficients Mr. Proctor observes likely under-estimate investors' return requirements.

17

18   **E.   Discounted Cash Flow Analyses**

19   Q40. PLEASE BRIEFLY DESCRIBE MR. WATSON'S CONSTANT GROWTH DCF

20   ANALYSIS AND RESULTS.

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[93]   Revised Direct Testimony of Robert B. Hevert, at 61.

[94]   *Ibid*., at 72.

1   A.   Mr. Watson calculates an average dividend yield of 3.38 percent by dividing each proxy

2   company's annualized dividend by its monthly average stock price for the six-month period

3   ending December 2018.[95] For the expected growth rate, Mr. Watson relies on Earnings

4   Per Share growth rate projections from Thomson Reuters.[96] Based on those estimates, Mr.

5   Watson calculates a Constant Growth DCF-based range of 5.13 percent to 12.11 percent,

6   with mean and median results of 8.60 percent and 8.16 percent, respectively.[97]

7

8   Q41. WHAT CONCERNS DOES MR. WATSON RAISE REGARDING THE CONSTANT

9   GROWTH DCF METHOD?

10   A.   Mr. Watson summarizes his concern by observing "trees don't grow to the sky".[98]   He

11   argues that any company whose expected growth rate exceeds expected GDP growth

12   eventually will swallow the entire economy. In the context of the Constant Growth DCF

13   model, however, the relevant question is whether the assumed growth rate is fundamentally

14   and empirically related to stock valuation levels. As discussed in my Revised Direct

15   Testimony, that is the case for expected earnings growth rates.[99] Nonetheless, Mr. Watson

16   addresses his concern by applying the Two-Step DCF method.

17

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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.

1   Q42.   PLEASE SUMMARIZE MR. WATSON'S TWO-STEP DISCOUNTED CASH FLOW

2   MODEL.

3   A.   Mr. Watson's Two-Step method is based on the approach used by the FERC, which applies

4   weights of two-thirds and one-third, respectively, to analysts' earnings growth rate

5   projections, and projected growth in nominal Gross Domestic Product ("GDP").   As with

6   FERC's approach, Mr. Watson's long-term growth rate of 4.42 percent is taken from three

7   sources: (1) the Energy Information Administration ("EIA"), (2) the Social Security

8   Administration ("SSA"), and (3) IHS Global Insights.[100]   Based on those inputs, Mr.

9   Watson produces ROE estimates ranging from 5.74 percent to 10.64 percent, with mean

10   and median estimates of 8.33 percent and 8.09 percent, respectively. Mr. Watson relies on

11   the 8.09 percent median result as his (unadjusted) ROE recommendation.[101]

12

13   Q43.   AT PAGES 20 AND 21 OF HIS DIRECT TESTIMONY, MR. WATSON IS CRITICAL

14   OF THE LONG-TERM GDP GROWTH RATE ASSUMED IN YOUR MULTI-STAGE

15   DCF ANALYSIS.   WHAT IS YOUR RESPONSE TO MR. WATSON ON THAT

16   POINT?

17   A.   First, as demonstrated in Charts 19 and 20 in my response to Mr. Walters, my long-term

18   growth rate is consistent with historical observed nominal GDP. Further, as to the SSA

19   GDP growth rate forecast Mr. Watson cites (and as explained further in my response to

---

[100]   Direct Testimony of Byron S. Watson, at 18–19.

[101]   Exhibit No.__(BSW-4), at 1.

1   Mr. Walters), my growth rate estimate falls within the range of the "cases" SSA

2   considers.[102]

3   Mr. Watson also points to the Congressional Budget Office ("CBO"), which

4   provides a real GDP annual growth rate estimate of 1.90 percent over the 2019 – 2028

5   forecast horizon. He suggests the Council take those projections into account.[103]   The

6   CBO, however, provides updates regarding its forecasting record. In that context, the CBO

7   noted that comparisons to other forecasts are not always apt, at least in part because they

8   may be based on different assumptions and used for different purposes.[104]   The CBO also

9   observes that it is required to assume that future fiscal policy generally will reflect current

10   law, so that it may provide a benchmark against which proposed changes in law may be

11   assessed.[105]   The CBO goes on to explain that "because forecasters make different

12   assumptions about future fiscal policy, it is difficult to compare the quality of forecasts

13   without considering the role of expected changes in laws."[106]   Given that purpose and

---

[102]   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.

[103]   Direct Testimony of Byron S. Watson, at 20–21.

[104]   *CBO's Economic Forecasting Record: 2017 Update*, October 2017, at 4–5.

[105]   *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."

[106]   *CBO's Economic Forecasting Record: 2017 Update*, October 2017, at 4–5.

1   structure, I disagree that the CBO's forecasts should be used to validate Mr. Watson's

2   result.

3   The CBO also notes that among its two-year forecasts (since the early 1980s), the

4   forecast error for "real output growth" and inflation (measured by the Consumer Price

5   Index) has been 1.30 percentage points and 0.90 percentage points, respectively.[107] That

6   range of error, if applied to the 1.90 percent long-term CBO forecast noted by Mr. Watson,

7   suggests that the 5.45 percent Mr. Watson finds concerning is within a reasonable range.[108]

8   Second, although Mr. Watson argues that because it has been used by FERC his

9   approach is reasonable, in its recent *Order Directing Briefs,* FERC concluded that "relying

10 on the DCF methodology alone will not produce a just and reasonable ROE"[109] and instead

11 proposes to include the Bond Yield Plus Risk Premium, Expected Earnings, and CAPM

12 approaches, to estimate the Cost of Equity.

13

14 Q44.   IS YOUR MULTI-STAGE DCF MODEL DEPENDENT ON A LONG-TERM GROWTH

15   RATE ASSUMPTION, AS MR. WATSON SUGGESTS?[110]

16 A.   No, it is not. As I explained in my Revised Direct Testimony, an alternative to using a

17   terminal growth rate is to develop the terminal price based on Price/Earnings ratios. Those

18   results are presented in Table 6 (page 30) of my Revised Direct Testimony.

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[107]   *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, *Order Directing Briefs*, 165 FERC ¶ 61,118 (November 15, 2018) at para. 34.

[110]   Direct Testimony of Byron S. Watson, at 16.

1

2 Q45. AS A PRACTICAL MATTER, DO THE FORECAST HORIZONS IN THE EIA AND

3   GLOBAL INSIGHTS PROJECTIONS CORRESPOND TO MR. WATSON'S TWO-

4   STEP DCF METHOD?

5 A. No, they do not. As noted earlier, the "two-step" DCF method is applied in a manner

6   similar to the Constant Growth DCF model; the only difference is that the growth rate is a

7   weighted average of analysts' earnings growth projections, and nominal GDP growth rate

8   projections. We can convert Mr. Watson's approach to a true two-step DCF analysis, in

9   which the first stage growth rate applies for a finite period, and the long-term growth rate

10   applies from that point on (in perpetuity). In that case, the DCF estimate is the Internal

11   Rate of Return ("IRR") that sets the market price equal to the present value of the projected

12   dividends. To determine the year in which the second stage growth applies, we only need

13   set the IRR equal to Mr. Watson's "two-step" DCF result.

14   To do so, I first replicated Mr. Watson's Constant Growth DCF results, based on

15   the fundamental Present Value formula:

16 $$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \cdots + \frac{D_\infty}{(1+k)^\infty} .$$

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

18 $$k = \frac{D(1+g)}{P_0} + g .$$

19   I then altered the Present Value formula such that the growth in dividends would change

20   from the first-stage growth to the second stage in a given year (which I refer to as the

21   "transition year"). At that point, all that was needed was to find the transition year that

22   caused the IRR to equal Mr. Watson's two-step DCF estimate (by company).

1   As shown in ENO Exhibit RBH-22, Mr. Watson's "two-step" DCF approach

2   implicitly assumes the first stage growth rate transitions to his assumed 4.42 percent growth

3   rate in the 35th year. Mr. Watson has not explained why that is a reasonable assumption,

4   or how it corresponds to the forecast horizons from the sources he cites. In my view,

5   assuming – implicitly or explicitly – growth rates will transition in the 35th year, without a

6   basis for that assumption is nearly arbitrary. Because it is the principal method on which

7   Mr. Watson relies, I do not believe his "two-step" DCF approach should be given weight

8   in determining the Company's ROE.

9

10   **F.   Bond Yield Plus Risk Premium Approach**

11   Q46. PLEASE SUMMARIZE MR. PROCTOR'S RESPONSE TO YOUR BOND YIELD

12   PLUS RISK PREMIUM ANALYSIS.

13   A.   Mr. Proctor believes the approach should be "discouraged" because it:

14   … is neither based on sound economic theory, a mathematical model,
15   nor observed investor behavior in the markets of debt and equity
16   securities. Instead, it is based on the observed behavior of regulatory
17   commissioners setting an authorized ROE. That is, regulatory agencies
18   setting a commission-authorized ROE which may be based on any
19   number of economic or non-economic factors.[111]

20   In short, Mr. Proctor feels the approach is "naïve and over-simplified", susceptible to bias

21   from settlements, and "does not address the relationship between the opportunity cost of

22   equity and interest rates from a free market-based perspective."[112]

23

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[111]   Direct Testimony of James M. Proctor, at 58.

[112]   *Ibid*., at 58–59.

1 Q47. WHAT IS YOUR RESPONSE TO MR. PROCTOR'S POSITION THAT THE RISK

2   PREMIUM ANALYSIS RELIES ON UTILITY COMMISSIONS' BEHAVIOR

3   RATHER THAN INVESTOR BEHAVIOR?

4 A.   Although they are based on regulatory proceedings, those cases, and their associated

5   decisions, reflect the same type of market-based analyses at issue in this proceeding. In

6   my experience in over 250 cases, capital market conditions and the concerns of investors

7   are not foreign concepts to regulatory commissions. And although regulatory commissions

8   must balance the interests of investors and ratepayers, investors are aware of that

9   obligation.

10   Because authorized returns are publicly available (the proxy companies disclose

11   authorized returns, by jurisdiction, in their 2017 SEC Form 10-Ks),[113] it is reasonable to

12   conclude that data is reflected, at least to some degree, in investors' return expectations

13   and requirements. In my view, Mr. Proctor's 7.57 percent CAPM result, which he argues

14   is based on a more defensible method, is so far removed from the returns investors know

15   to be available elsewhere that investors would not see it as meeting the *Hope* and *Bluefield*

16   standards.

17   As to Mr. Proctor's view that the approach is not "based on sound economic

18   theory"[114], again I disagree. At footnote 34 to my Revised Direct Testimony, I referred to

19   Brigham, Shome, and Vinson's article, *The Risk Premium Approach to Measuring a*

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[113] *See*, *for example*, American Electric Power Company, Inc., SEC Form 10-K for the year ended December 31, 2017, at 4; Entergy Corporation., SEC Form 10-K for the year ended December 31, 2017, at 31; WEC Energy Group, Inc., SEC Form 10-K for the year ended December 31, 2017, at 139-143; Xcel Energy, Inc., SEC Form 10-K for the year ended December 31, 2017, at 131-136.

[114] Direct Testimony of James M. Proctor, at 57.

1   *Utility's Cost of Equity*. In that article, the authors point out that "with 'proper' regulation,

2   utility stocks would provide a better hedge against unanticipated inflation than would

3   bonds."[115]   In that case, if concerns regarding future inflation increase, the perceived risk

4   of bonds would increase more than the perceived risk of equity. That is, the return required

5   on equity would increase less than the return required on bonds, thereby decreasing the

6   Equity Risk Premium.

7   In the same footnote I referred to Harris and Marston who (as noted earlier) found

8   the Equity Risk Premium to change inversely to changes in interest rates. I also referred

9   to Maddox, Pippert, and Sullivan, whose results "indicate a statistically significant inverse

10   relationship between interest rates and utility equity risk premiums." Mr. Proctor's view

11   that the method is not based on a sound theory or model simply is incorrect – it is based on

12   a theory, and a model, supported by published financial literature and research.

13   Lastly, as noted earlier, Mr. Proctor and Mr. Watson point to FERC as support for

14   their use of the "two-step" DCF method. FERC, however, now believes the Bond Yield

15   Plus Risk Premium approach should be among the four methods used to estimate the Cost

16   of Equity.[116]

17

18   Q48.   DOES YOUR BOND YIELD PLUS RISK PREMIUM MODEL PROVIDE

19   EMPIRICALLY MEANINGFUL RESULTS?

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[115]   Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, The Risk Premium Approach to Measuring a Utility's Cost of Equity, Financial Management (Spring 1985), at 43.

[116]   Docket Nos. EL14-12-003 and EL15-45-000, *Order Directing Briefs*, 165 FERC ¶ 61,118 (November 15, 2018) at para. 18. Docket No. EL11-66-001, *et al*., *Order Directing Briefs* 165 FERC ¶ 61,030 (October 16, 2018) at para. 17.

1   A.   Yes, it does. As shown in Chart 1 (page 37) of my Revised Direct Testimony, the model's

2   R^2 is about 74.00 percent, and the inverse relationship between the Equity Risk Premium

3   and the 30-year Treasury yield is statistically significant at the 99.00 percent confidence

4   level. That is, changes in interest rates explain about 74.00 percent of the change in

5   authorized ROEs. If Mr. Proctor believes other variables should be included in the

6   analysis, he has not explained what they are, or how they would contribute to the remaining

7   26.00 percent of explanatory value needed to produce a perfect statistical fit.

8   To help put the model's explanatory value in perspective, I calculated the R^2

9   associated with the Beta coefficient for each company in Mr. Proctor's proxy group. As

10   Mr. Proctor is aware, Value Line calculates its Beta coefficients using linear regression

11   analysis, in which the subject company's return is the dependent variable, and the market

12   return is the independent variable. Although Value Line does not provide the R^2 for its

13   Beta coefficients, I was able to replicate the calculation based on Value Line's convention

14   (weekly returns, using the New York Stock Exchange Index as the market index). As ENO

15   Exhibit RBH-27 demonstrates, the average R^2 for Mr. Proctor's group is 6.80 percent. That

16   is, whereas the explanatory value of my Bond Yield Plus Risk Premium method is 74.00

17   percent, the average explanatory value of Mr. Proctor's Beta coefficients is less than 7.00

18   percent.[117]

19

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[117]   By pointing out that difference, I am not suggesting the CAPM should not be used.

1   Q49.   EARLIER YOU REFERRED TO FOUR METHODS THAT THE FERC HAS

2   PROPOSED TO ESTIMATE THE COST OF EQUITY. WHAT IS THE FOURTH

3   METHOD THE FERC HAS PROPOSED TO ESTIMATE THE COST OF EQUITY?

4   A.   In addition to the two-step DCF approach, the CAPM, and the Bond Yield Plus Risk

5   Premium approach, the FERC has proposed using the Expected Earnings approach.[118] The

6   Expected Earnings approach calculates the projected returns on book value for the electric

7   industry group as a whole and for the specific firms in the proxy group individually. The

8   Expected Earnings approach is based on the intuitively simple concept that when faced

9   with alternative investments of comparable risk, investors will choose that with the higher

10   expected return. In that fundamental sense it is consistent with the economic principle of

11   opportunity costs, and the *Hope* and *Bluefield* "comparable risk" standard.

12

13   Q50.   HAVE YOU PREPARED AN EXPECTED EARNINGS ANALYSIS FOR YOUR

14   PROXY GROUP?

15   A.   Yes, I have. To do so, I gathered the three-to-five year projected earned Return on Common

16   Equity[119] from the latest Value Line report for each proxy company. I adjusted those

17   projected returns to account for the fact that they reflect common shares outstanding at the

18   end of the period, rather than the average shares outstanding over the course of the year.[120]

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[118]   Docket Nos. EL14-12-003 and EL15-45-000, *Order Directing Briefs*, 165 FERC ¶ 61,118 (November 15, 2018) at para. 18. Docket No. EL11-66-001, *et al*., *Order Directing Briefs* 165 FERC ¶ 61,030 (October 16, 2018) at para. 17.

[119]   For the projected period 2021-2023, or 2022-2024. *See* ENO Exhibit RBH-20.

[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. *See*, Leopold A. Bernstein, Financial Statement Analysis: Theory, Application, and Interpretation, Irwin, 4th Ed., 1988, at 630.

1   That analysis indicates a median Cost of Equity of 10.52 percent, which is within my

2   recommended range and supports the conclusion that the Advisors' ROE Witnesses' 8.93

3   percent recommendation is well below a reasonable estimate of the Company's Cost of

4   Equity.

5

6   **G.   Business Risk Adjustment**

7   Q51.   PLEASE BRIEFLY SUMMARIZE MR. PROCTOR'S PROPOSED BUSINESS RISK

8   ADJUSTMENT.

9   A.   Mr. Proctor does not appear to disagree with the proposition that the Company is risker

10   than its peers. In his view, "its geographic location, its small size, and its propensity to

11   incur significant storm damage"[121] is reason to provide a return in excess of his CAPM

12   estimates. To arrive at his estimate, Mr. Proctor calculates the standard deviation of his

13   proxy group's Beta coefficient (9.33 percent), which he multiplies by his estimated Market

14   Risk Premium (8.70 percent), producing an adjustment of 81 basis points.[122] Mr. Proctor

15   believes the sum of his CAPM estimate (7.57 percent), his business risk adjustment (0.81

16   percent), and his flotation cost adjustment (discussed below; 0.03 percent), 8.42 percent, is

17   a reasonable estimate of the Company's Cost of Equity.[123]

18

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

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[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.

1   A.   No, I do not. Earlier I addressed Mr. Proctor's view that 8.42 percent is a reasonable

2   estimate of the Company's Cost of Equity; I will not repeat those arguments here. Those

3   points aside, I fundamentally disagree with the method by which Mr. Proctor developed

4   his estimate.

5

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

7   A.   In my view, Mr. Proctor's approach captures statistical variation among the proxy

8   companies' Beta coefficients; it is not a measure of fundamental business risk. Even if it

9   were, there is no particular reason why one standard deviation is the proper adjustment. As

10   Mr. Proctor's Exhibit No.__(JMP-9) demonstrates, at the (approximately) 95.00 percent

11   confidence level, the Beta coefficient adjustment would be 1.62 percent, for an adjusted

12   ROE estimate of 9.20 percent.[124] What Mr. Proctor fails to consider is that even at that

13   higher confidence level, his method would produce a result near the lowest ROE authorized

14   since at least 1980 for a vertically integrated electric utility.[125] That is, even with a risk

15   adjustment two times Mr. Proctor's proposal, the effect would be an ROE that suggests

16   risk among the very lowest of utilities, not among the highest.

17   Moreover, in applying Mr. Proctor's approach it is difficult to disentangle the effect

18   of the variation among the proxy companies' Beta coefficients and the statistical properties

19   of individual Beta coefficients. As noted earlier, Beta coefficients tend to have relatively

20   low R^2 values (market returns tend to explain relatively low proportions of changes in

---

[124] $(0.7797 - 0.5931) \times 8.70\% = 1.62\%$; $9.20\% = (0.78 \times 8.70\%) + 2.41\%$

[125]   The lowest authorized ROE for a vertically integrated electric utility since 1980 is 9.00 percent. Source: Regulatory Research Associates.

1   company-specific returns). A statistical reality is that with low R^2 values come relatively

2   high standard errors (*see*, ENO Exhibit RBH-27). Consequently, what Mr. Proctor

3   attributes to incremental business risk may be not much more than random error.

4   Those practical points aside, Mr. Proctor's method runs counter to financial

5   research. For example, Mr. Proctor argues his adjustment is meant to capture, among other

6   things, the Company's relatively small size. As discussed in my Revised Direct Testimony,

7   however, Beta coefficients do not reflect the risks associated with small size.[126] I explained

8   that published research has found stock returns are better explained as a function of

9   variables such as size and Market/Book values *in addition to* the single-factor Beta

10   coefficient. Based on data provided by Duff & Phelps, I calculated the size premium alone

11   to be 101 basis points.[127]

12   That 101-basis point adjustment does not address the span of incremental risks Mr.

13   Proctor identifies - it addresses the Company's relatively small size, only. One means of

14   capturing the additional return associated with those additional risks is to recognize, as the

15   Advisors' ROE Witnesses do, that geographic location and storm risk are two factors

16   driving Moody's below investment grade rating for ENO.[128] With that point in mind, I

17   reviewed the incremental return required on below investment grade utility debt relative to

18   investment grade debt. Based on data from Bloomberg Professional, since February 2018,

19   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.

[127]   *Ibid*., at 53–54. *See* ENO Exhibit RBH-11.

[128]   Direct Testimony of Byron S. Watson, at 25–26; Direct Testimony of James M. Proctor, at 61.

1   and utility bonds rated below investment grade (in the BB ratings category) has been about

2   220 basis points.[129]

3   Although I believe equity return requirements would be much higher than spreads

4   in the bond market, if we simply use this measure and Mr. Proctor's 7.57 percent

5   unadjusted return, the corresponding Cost of Equity would be approximately 9.77 percent

6   (7.57 percent plus 2.20 percent). Even then, the result is about the same as the average

7   authorized ROE. If we assume the 220-basis point adjustment does not reflect the risks

8   associated with small size, the result would be 10.78 percent (9.77 percent plus 1.01

9   percent).

10   I appreciate there may be some overlap between the 220-basis point credit spread

11   and my 101-basis point small size adjustment, such that they are not necessarily additive.[130]

12   As noted earlier, however, equity investors bear the residual risk of ownership in

13   perpetuity. And although below investment grade debt has risks greater than its investment

14   grade counterparts, it still has protections not available to equity investors, and a priority

15   claim on cash flows relative to equity investors. Consequently, the Cost of Equity would

16   increase more than the cost of debt, such that the combined 321-basis point adjustment (to

17   Mr. Proctor's 7.57 percent unadjusted result) would be a reasonable estimate of the

18   Company's ROE (and just three basis points above my 10.75 percent recommendation).

19

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[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". *See* Moody's Investors Service, Credit Opinion, *Entergy New Orleans, Inc*., October 13, 2017.

1   Q54.   HAVE YOU CONSIDERED OTHER MEASURES OF THE INCREMENTAL RETURN

2   ASSOCIATED WITH THE RISKS MR. PROCTOR OBSERVES?

3   A.   Yes, I have. Rather than using the standard deviation of Beta coefficients within Mr.

4   Proctor's proxy group, I reviewed the Beta coefficients of companies with characteristics

5   corresponding to the Company's below-investment grade rating. To do so, I developed a

6   comparison group of companies that (1) are classified by Value Line as operating in the

7   Electric Utility, Power, or Diversified Natural Gas industries, and (2) have Financial

8   Strength Ratings (also by Value Line) of "B+" or lower.

9

10   Q55.   WHY DID YOU APPLY THOSE SPECIFIC CRITERIA?

11   A.   First, Value Line is a widely recognized source of financial information, covering industry

12   sectors that are relevant to this analysis. Second, Value Line's "Financial Strength Rating"

13   considers several factors including "[b]alance sheet leverage, business risk, the level and

14   direction of profits, cash flow, earned returns, cash, corporate size, and stock price", each

15   of which is an important consideration to equity investors. By selecting companies

16   operating in the electric utility and energy industries, with Financial Strength Ratings

17   similar to ENO's, we are able to develop a group whose Beta coefficients reasonably reflect

18   the risks associated with a below investment grade credit rating.

19

20   Q56.   WHY DID YOU SELECT COMPANIES WITH FINANCIAL STRENGTH RATINGS

21   OF "B+" OR LOWER?

22   A.   I did so because the lowest Financial Strength rating of any company in the Value Line

23   Electric Utility universe is "B+". Of the five Electric Utility companies with a B+ Financial

1   Strength rating, only Pacific Gas and Electric, however, has a below investment grade

2   rating from either S&P or Moody's.[131]

3   As shown in Table 3 below, the average Beta coefficient for all companies (within

4   the sectors noted above) with Financial Strength Ratings of "B+" or lower is 1.12; the

5   average for companies with "B+" ratings is also 1.12. In both cases, the average was quite

6   near the median and the skew was negligible.

7   **Table 3: Average, Median Beta Coefficients[132]**

OVERALL	Average	1.12
	Median	1.15
	Std. Dev.	0.72
	Skew	0.01
	Count	107
FSR = B+	Average	1.12
	Median	1.20
	Std. Dev.	0.49
	Skew	0.20
	Count	21

8   I considered 1.10 a conservative estimate of the Beta coefficient for companies with

9   Financial Safety Ratings of B+. The difference between 1.10 and Mr. Proctor's proxy

10   group average Beta coefficient (0.59) is 0.51 which, when multiplied by Mr. Proctor's

11   Market Risk Premium (8.70 percent) produces an incremental equity return requirement of

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[131]   Those four companies include CenterPoint Energy, Edison International, Pacific Gas & Electric Company, PNM Resources, and Unitil, Inc.

[132]   Source: Value Line.

1   4.44 percent. Adding that additional return to Mr. Proctor's unadjusted CAPM result (7.57

2   percent) suggests an adjusted ROE of 12.01 percent.[133]

3

4   Q57.   ARE YOU SUGGESTING THAT THE COMPANY'S ROE SHOULD BE SET AT 12.01

5   PERCENT?

6   A.   No, I continue to recommend 10.75 percent. The analyses discussed above, however,

7   demonstrate that Mr. Proctor's CAPM estimate and proposed business risk adjustment do

8   not reasonably reflect ENO's Cost of Equity. There is no reasonable means of reconciling

9   an ROE of 8.38 percent – including his 81-basis point business risk adjustment – with the

10   data and methods frequently used to determine the Cost of Equity.

11

12   **H.   Additional ROE Considerations**

13   *Tax Cuts and Jobs Act*

14   Q58.   PLEASE BRIEFLY SUMMARIZE MR. PROCTOR'S POSITION REGARDING THE

15   TCJA'S EFFECT ON THE COMPANY'S COST OF EQUITY.

16   A.   Mr. Proctor raises two arguments. First, he suggests "if" there is any increase in risk

17   associated with the TCJA it would be industry-wide and reflected in his and Mr. Watson's

18   analyses.[134] Second, Mr. Proctor believes "any over-all negative impact from the TCJA of

19   2017 on ENO's business risk is short-lived and immaterial".[135]

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[133]   12.01% = (0.51 x 8.70%) + 7.57%

[134]   Direct Testimony of James M. Proctor, at 45–46.

[135]   *Ibid*., at 46.

1

2   Q59.   WHAT IS YOUR RESPONSE TO MR. PROCTOR ON THOSE POINTS?

3   A.   As to Mr. Proctor's first argument, it is important to recall that all models produce ranges

4   of results.[136] The important analytical consideration is whether there are factors that may

5   help determine where the Cost of Equity likely falls within those ranges. As discussed

6   below, the TCJA is one such factor. Regarding his second point, my Revised Direct

7   Testimony noted that because utilities cannot benefit from the TCJA in ways other

8   industries can, utilities became less attractive relative to other industry sectors.[137]   That

9   change in valuation has been meaningful, and longer-lived than Mr. Proctor supposes.

10   Third, the TCJA will affect each company differently and rating agencies are

11   evaluating how each has addressed these effects. Moody's stated it would "continue to

12   monitor the financial impact of tax reform on each company, including its regulatory

13   approach to rate treatment",[138] which suggests likewise treatment by equity investors.

14

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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.

[138]   Moody's Investors Service, *Rating Action: Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform,* January 19, 2018.

1   *Implications of the Formula Rate Plan and Other Rate Mechanisms*

2   Q60.   PLEASE SUMMARIZE MR. PROCTOR'S POSITION REGARDING VARIOUS RATE

3   STRUCTURES AND THEIR EFFECT ON THE COMPANY'S CREDIT PROFILE AND

4   COST OF CAPITAL.

5   A.   Mr. Proctor argues that the Company's "favorable ratemaking considerations, separately

6   and collectively, decreases regulatory lag" which "should provide ENO enhanced financial

7   credit metrics and sustain or improve its credit profile."[139]

8

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

10   A.   I disagree. Mr. Proctor's argument appears to be that revenue stabilization mechanisms

11   *necessarily* are credit enhancing – that they materially improve the utility's financial

12   integrity, thereby reducing its cost of capital. He fails to consider that rate structures such

13   as the Formula Rate Plan are more likely to be credit supportive – helping utilities maintain

14   their credit profiles in the face of countervailing forces. That is, but for the rate structures,

15   the utility's credit profile would come under pressure, likely increasing its cost of capital.

16   Even if it were the case that revenue stabilization mechanisms mitigate some measure of

17   "risk," they would affect the Company's Cost of Equity only if: (1) the effect of the

18   mechanism was to reduce the Company's risk below that of its peers; and (2) investors

19   knowingly reduced their return requirements as a direct consequence of the mechanisms.

20

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[139]   Direct Testimony of James M. Proctor, at 26.

1 Q62. DOES FINANCIAL THEORY REQUIRE A REDUCTION IN THE COST OF EQUITY

2 IN CONNECTION WITH STRUCTURES SUCH AS THE FORMULA RATE PLAN?

3 A. No, it does not. As Mr. Proctor recognizes, in Modern Portfolio Theory (which forms the

4 basis of the CAPM) risk is defined as the uncertainty, or variability, of returns. Modern

5 Portfolio Theory was advanced by recognizing that total risk may be separated into two

6 distinct components: non-diversifiable risk, which is that portion of risk that can be

7 attributed to the market as a whole; and non-systematic (or diversifiable) risk, which is

8 attributable to the idiosyncratic nature of the subject company, itself. As discussed in my

9 Revised Direct Testimony, non-diversifiable risk is measured by the Beta coefficient

10 within the CAPM structure.[140]

11 Under Modern Portfolio Theory (and the CAPM) an investor would not be

12 indifferent to a reduction in expected ROE in return for the implementation of rate

13 structures unless those structures specifically reduce non-diversifiable risk. That is, any

14 reduction in the Cost of Equity depends on the type of risk that is reduced; if the risk

15 assumed to be mitigated by the rate structures is diversifiable, there would be no reduction

16 in the Cost of Equity even if total risk (diversifiable plus non-diversifiable risk) has been

17 reduced. If, however, rate structures mitigate increased systematic risk associated with the

18 factors that drove their implementation in the first place, there likewise would be no effect

19 on the Cost of Equity. Mr. Proctor assumes, but does not demonstrate, any risks he believes

20 to be mitigated by the Company's rate structures are systematic in nature, that systematic

---

140 Revised Direct Testimony of Robert B. Hevert, at 30–31.

1   risk was not increased before the structures were implemented and, therefore that the rate

2   structures necessarily reduce the Company's Cost of Equity.

3   Lastly, under the "comparable risk" standard and the economic principle of

4   opportunity costs, the Cost of Equity cannot be considered in isolation, it must be viewed

5   on a comparative basis. Putting aside his disregard of Modern Portfolio Theory, Mr.

6   Proctor simply has not shown the Company would be so less risky than its peers that its

7   Cost of Equity would be 8.42 percent.

8

9 *Flotation Cost Adjustment*

10 Q63. PLEASE SUMMARIZE MR. PROCTOR'S RECOMMENDATION REGARDING

11   FLOTATION COSTS.

12 A.   Mr. Proctor agrees an adjustment for flotation costs is reasonable, although he suggests I

13   have calculated the approximately nine basis point adjustment based on flotation costs of

14   1.12 percent of gross equity issuance proceeds. As noted in ENO Exhibit RBH-12,

15   however, the applicable flotation cost rate is 2.525 percent; it is that rate which produces

16   the nine-basis point adjustment. In any event, Mr. Proctor argues flotation costs should be

17   calculated net of taxes, and recommends an adjustment of three basis points.[141]

18

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

20 A.   No, I do not. First, as noted above the appropriate flotation cost rate is 2.525 percent,

21   which represents the weighted average rate over several years and across many companies.

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[141]   Direct Testimony of James M. Proctor, at 62–63.

1   Because equity has an indefinite life, the flotation costs adjustment should reflect the best

2   estimate of issuances costs "of various vintages and types of equity capital."[142]

3   Second, I disagree with Mr. Proctor's view that the flotation cost rate should be

4   calculated on a tax-effected basis. Flotation costs are not operating expenses and are not

5   recovered through the Company's revenue requirement. Even if they were, the recovery

6   would be of the cost itself (amortized over some period). Rather, flotation costs are a

7   permanent reduction in equity capital; the adjustment that Mr. Proctor adopts reflects that

8   position. That method, which is consistent with that recommended by Dr. Morin, does not

9   consider income taxes. But even if we did make a tax adjustment, the flotation cost would

10   be about six basis points, not nearly enough to bring Mr. Proctor's ROE recommendation

11   to a reasonable level.

12

13   *Double Leverage Adjustment*

14   Q65. PLEASE SUMMARIZE MR. WATSON'S PROPOSED "DOUBLE LEVERAGE"

15   ADJUSTMENT TO THE COMPANY'S CAPITAL STRUCTURE.

16   A.   Mr. Watson argues a utility engages in "double leverage" when it borrows debt at the parent

17   level "and places that money into its utility subsidiaries as common equity providing a

18   potential return which is likely greater than its original borrowed cost."[143] In his view, the

19   fact that the parent company (Entergy Corporation) has more debt than its utility operating

20   subsidiaries is evidence of "double leverage", requiring the imposition of a hypothetical

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[142]   Roger A. Morin, PhD, <u>New Regulatory Finance</u>, Public Utilities Reports, Inc., 2006, at 337.

[143]   Direct Testimony of Byron S. Watson, at 51.

1   capital structure.[144] Mr. Watson reasons that "allowing ENO rates reflective of an equity

2   ratio of 52.2% when the Entergy Corp. equity ratio is 34.1% would constitute double

3   leverage."[145]

4   As discussed below, extended to its logical conclusion, Mr. Watson's theory would

5   require every operating subsidiary to be financed in the same proportions as the parent, in

6   this case, with 34.10 percent common equity. But he does not make that recommendation,

7   recognizing that doing so "reasonably might not be considered prudent."[146] On that point,

8   we agree. Instead, Mr. Watson concludes that "a reasonable estimate of Entergy's benefit

9   at ratepayer expense from ENO's double leverage is closer to $1.5 million and $0.3 million

10   annually for electric and gas respectively based on the average non-ENO EOC equity

11   ratio."[147]

12   In summary, Mr. Watson appears to believe Entergy Corporation has engaged in

13   "double leverage", which would require a 34.10 percent equity ratio for ratemaking

14   purposes. But he chooses not to go that far, concluding the proper average equity ratio for

15   other Entergy Corporation operating utilities is 50.00 percent.[148]

16

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144   *Ibid*.

145   *Ibid*.

146   *Ibid*., at 54.

147   *Ibid*.

148   *Ibid*., at 55.

1   Q66.   DO YOU AGREE WITH MR. WATSON'S CONCLUSIONS?

2   A.   No, I do not. As discussed below, Mr. Watson's approach is internally inconsistent, not

3   supported by basic financial theory, removed from regulatory practice, and would have the

4   unintended effect of increasing risks to investors and costs to ratepayers.

5

6   Q67.   TURNING TO YOUR FIRST POINT, WHY DO YOU BELIEVE MR. WATSON'S

7   RECOMMENDATION IS INTERNALLY INCONSISTENT?

8   A.   Double leverage cannot be not a matter of degree. Here, Mr. Watson argues the parent

9   company has borrowed at debt cost rates and invested that capital in subsidiaries' equity.

10   That argument assumes, however, that cash is not fungible, that it can be traced from its

11   source (the borrowed debt) to its use (invested equity). If that is the case, there is only one

12   outcome: The 34.10 percent parent company equity ratio must be applied to all Entergy

13   utility operating companies.

14   Simply, if Mr. Watson's capital structure recommendation is predicated on his

15   finding of double leverage, he should not recommend anything but 34.10 percent. In

16   addressing that point, the Arkansas Public Service Commission noted that the issue at hand

17   was whether "certain liabilities can be specifically identified and associated with certain

18   assets",[149] noting the testimony of Staff witness Dr. Berry, who stated that:

19   You either think fungibility is appropriate, or you don't. You don't draw
20   the line and say, 'Well, certain liabilities are fungible, but certain other
21   liabilities are not.' It's either all or nothing with fungibility.[150]

---

[149]   Arkansas Public Service Commission, Docket No. 84-199-U, Order No. 7, at 12.

[150]   *Ibid*., at 13.

1   By recommending a 50.00 percent equity ratio, Mr. Watson effectively has assumed

2   fungibility can be partially applied.

3

4 Q68. PLEASE NOW EXPLAIN WHY YOU BELIEVE MR. WATSON'S ARGUMENT IS

5   NOT SUPPORTED BY FINANCIAL THEORY.

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

7   (1) every dollar of external capital raised by the parent company can be specifically traced

8   to an eventual use, (2) all subsidiaries can and should be financed in the same proportions

9   as the parent, and (3) the return required on an investment depends on the source of funds,

10   not on the risks attendant to the investment, itself.

11   As to the first assumption, Mr. Watson has provided no information regarding how

12   individual sources of capital raised at the parent level were invested in ENO, or any other

13   Entergy Corporation subsidiary. That he did not do so is not surprising; it is a long-held

14   understanding in corporate finance that cash is fungible and cannot be traced to specific

15   uses. In that regard, the Federal Power Commission noted "[i]t is generally impossible to

16   specifically trace the source of funds used for various corporate purposes…"[151] Similarly,

17   the New Hampshire Public Service Commission stated that:

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

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[151]   United States Federal Power Commission, Order No. 561, February 2, 1977, at 2.

[152]   New Hampshire Public Utilities Commission, DT 02-110, Order No. 24,625, January 1, 2004.

1   Regarding the second assumption, Mr. Watson's reference to the parent company

2   capital structure runs counter to the widely accepted practice of applying the "stand-alone"

3   approach, which treats each utility subsidiary as its own company. Under the stand-alone

4   approach, the cost of capital is determined using the subsidiary's capital structure and cost

5   of debt and equity; the Cost of Equity is estimated by reference to a proxy group of firms

6   of comparable risk. As discussed further below, the stand-alone approach recognizes that

7   the return should be based on the relative risk of the investment rather than the source of

8   financing. That is, the Cost of Equity is the risk-adjusted opportunity cost to the investors

9   and not the cost of the specific capital sources being employed by investors.

10   Under the stand-alone approach, ownership does not affect the operating utility's

11 capital structure or cost of capital. Parent entities, like other investors, have capital

12 constraints and must consider the attractiveness of the expected risk-adjusted return of each

13 investment alternative as part of their capital budgeting process. The opportunity cost

14 concept applies regardless of the source of the funding. When funding is provided by a

15 parent entity, the return still must be sufficient to provide an incentive to the firm to allocate

16 equity capital to the subsidiary or business unit rather than other internal or external

17 investment opportunities. That is, the regulated subsidiary must compete for capital with

18 its affiliates and with other, similarly situated utility companies. In that regard, investors

19 value corporate entities on a sum-of-the-parts basis and expect each division within the

20 parent company to provide an appropriate risk-adjusted return. It therefore is important

21 that the authorized capital structure reflects the risks and prospects of the utility's

22 operations and supports the utility's financial integrity from a stand-alone perspective.

1   The stand-alone approach has been long-supported in published financial literature.

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

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

11   The use of the operating subsidiary's actual capital structure – the capital funding

12   the utility plant and equipment that enables utility service – also is consistent with FERC's

13   precedent, under which the commission prefers to use the applicant's capital structure,

14   where possible.[154] In particular, FERC will use the utility operating company's capital

15   structure if it meets three criteria: (1) it issues its own debt without guarantees; (2) it has

16   its own bond rating; and (3) it has a capital structure within the range of capital structures

17   approved by the commission.[155] FERC noted that if those conditions are not met, it may

18   apply the consolidated capital structure. In those cases, "[u]se of the parent's market driven

19   capital structure when the operating company's own capital structure is outside the range

20   of reasonable capital structures ensures that the operating company receives a reasonable

21   return, while also protecting ratepayers against higher rates resulting from equity ratios

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[153]   Richard H. Pettway, Bradford D. Jordan, *Diversification, Double Leverage, and the Cost of Capital*, The Journal of Financial Research, Vol. VI, No. 4, Winter 1983, at 289. Please note, the authors use the terms "independent company" and "stand alone" interchangeably.

[154]   *See Transcontinental Gas Pipe Line Corp,* 80 FERC ¶ 61,157, 61,657 (1997) ("Opinion No. 414").

[155]   148 FERC ¶ 61,049 Docket No. EL14-12-000, at 190.

1   outside the reasonable range."[156] FERC also noted that it does not apply a specific cap to

2   the equity ratio. Rather, the commission stated that:

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

7   FERC therefore has recognized that the capital structure is fundamentally tied to the assets

8   being financed, and to the nature of utility operations.

9   Lastly, imposing the parent company's capital structure on the subsidiary assumes

10   all the subsidiary's equity was provided by the parent. That clearly is not the case; retained

11   earnings are derived from the subsidiary's operations. In the case of ENO, as of 2017

12   approximately $190.40 million of its $415.50 Total Proprietary Capital (or 45.80 percent)

13   was derived from retained earnings.[157]

14

15   Q69. PLEASE DISCUSS MR. WATSON'S THIRD IMPLICIT ASSUMPTION, THAT THE

16   REQUIRED RETURN ON AN INVESTMENT DEPENDS ON ITS SOURCE OF

17   FUNDS.

18   A.   As noted earlier, Mr. Watson believes debt raised at the parent level has been used to

19   finance equity investments at the subsidiary level, "providing a return which is likely

20   greater than its original borrowed cost."[158] Because investors tend to be risk averse, the

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[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.

1   return they require depends on the risk of the investment, not the source of capital used to

2   fund the investment.

3   Under Mr. Watson's construct, the required return depends on the source of

4   financing, not on the risks of the underlying utility operations. Two utilities identical in all

5   respects but for their form of ownership should have the same cost rates. The position that

6   a company would have a different value depending on how investors fund their equity

7   investments violates the widely acknowledged economic "law of one price", which states

8   that in an efficient market, identical assets would have the same value.

9   That discussion suggests a second point: If the common equity of a subsidiary were

10   held by both the parent and an external investor, the equity held by the parent would have

11   one required return, and the equity held by outside investors would have another. To the

12   extent required returns differed, so would the value of the equity. But in an efficient

13   market, identical assets must have the same price (value). If not, the difference quickly

14   would be arbitraged away. As Dr. Morin notes:

15   Just as individual investors require different returns from different assets in
16   managing their personal affairs, why should regulation cause parent
17   companies making investment decisions on behalf of their shareholders to
18   act any differently? A parent company normally invests money in many
19   operating companies of varying sizes and varying risks. These subsidiaries
20   pay different rates for the use of investor capital, such as long-term debt
21   capital, because investors recognize the differences in capital structure, risk,
22   and prospects between the subsidiaries. Yet, the double leverage calculation
23   would assign the same return to each activity, based on the parent's cost of
24   capital. Investors recognize that different subsidiaries are exposed to
25   different risks, as evidenced by the different bond ratings and cost rates of
26   operating subsidiaries. The same argument carries over to common equity.
27   If the cost rate for debt is different because the risk is different, the cost rate

1   for common equity is also different and the double leverage adjustment
2   shouldn't obscure this fact.[159]

3   Further to that point, the Maryland Public Service Commission specifically rejected the

4   use of double leverage in a 2007 rate proceeding, stating:

5   We reject People's Counsel's proposed capital structure [reflecting a
6   double leverage adjustment] because it suffers from numerous flaws.
7   First, it assumes that the rate of return depends on the source of capital
8   rather than the risks faced by the capital.[160]

9 Q70. LASTLY, WHY DO YOU BELIEVE MR. WATSON'S RECOMMENDATION

10   WOULD HAVE THE EFFECT OF INCREASING THE COST OF CAPITAL?

11 A.   I believe that is the case for two reasons. First, it would require more financial leverage

12   (debt) in the Company's capital structure, creating additional financial risk and, therefore,

13   increasing the cost of capital. As Brigham and Gapenski point out, "…the use of debt, or

14   financial leverage, concentrates the firm's business risk on its stockholders."[161] Financial

15   leverage and the cost of capital therefore are inextricably related; as financial risk increases,

16   so does the Cost of Equity. Mr. Watson's recommendation to increase financial leverage

17   therefore would put upward pressure on the Company's cost of capital.

18   Second, as noted earlier, 50.00 percent of the factors Moody's considers in arriving

19   at credit rating determinations relate to the nature of regulation, and the regulatory

20   environment. Here, the Company's proposed capital structure is highly consistent with

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[159]   Roger A. Morin, PhD, New Regulatory Finance, Public Utilities Reports, Inc., 2006, at 524.

[160]   Maryland Public Service Commission, Order No. 81517, Case No. 9092, In the Matter of the Application of Potomac Electric Power Company for Authority to Revise its Rate and Charges for Electric Service and for Certain Rate Design Changes, July 19, 2007. [clarification added].

[161]   Eugene F. Brigham, Louis C. Gapenski, Financial Management, Theory and Practice, 1994, The Dryden Press, at 528.

1   industry practice; as discussed in my Revised Direct Testimony, the proxy group average

2   equity ratio has been 53.15 percent,[162] somewhat higher than the Company's proposed

3   52.20 percent equity ratio.   If the City Council were to adopt Mr. Watson's

4   recommendation, the increased debt leverage not only would erode cash flow-related credit

5   metrics, it would introduce an element of regulatory risk that certainly would be of concern

6   to both debt and equity investors. In that case, the costs of debt and equity would increase.

7

8   **IV. RESPONSE TO AIR PRODUCTS WITNESS WALTERS**

9   Q71. PLEASE SUMMARIZE MR. WALTER'S RECOMMENDATION REGARDING THE

10   COMPANY'S COST OF EQUITY.

11   A.   Mr. Walters recommends an ROE of 9.35 percent, within a range of 9.00 to 9.70 percent.[163]

12   Mr. Walters establishes his recommended ROE by reference to: (1) his constant growth

13   DCF model using both consensus analyst growth rates and a sustainable growth rate (with

14   median and average results ranging from 7.69 percent to 9.30 percent);[164] (2) his Multi-

15   Stage DCF method (with median and mean results of 7.67 percent and 7.78 percent,

16   respectively);[165] (3) his Risk Premium study (ranging from 9.60 percent to 9.70 percent);[166]

17   and (4) his CAPM analyses (ranging from 7.30 percent to 8.20 percent).[167] Mr. Walters'

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[162]   See ENO Exhibit RBH-13; updated to 53.44 percent in ENO Exhibit RBH-21.

[163]   Direct Testimony of Christopher C. Walters, at 3.

[164]   *Ibid*., at 36.

[165]   *Ibid*., at 36.

[166]   *Ibid*., at 42.

[167]   *Ibid*., at 48.

1   9.35 percent recommendation represents the approximate midpoint of his DCF (9.00

2   percent) and Risk Premium (9.70 percent) analyses.[168]

3

4   Q72.   WHAT ARE THE PRINCIPAL ANALYTICAL AREAS IN WHICH YOU DISAGREE

5   WITH MR. WALTERS?

6   A.   The principal areas in which I disagree with Mr. Walters include: (1) the effect of market

7   conditions and utility risk profiles on the Company's Cost of Equity; (2) the application of

8   the Constant Growth DCF model, and interpretation of its results; (3) the application of the

9   Multi-Stage DCF model; (4) the Market Risk Premium component of his CAPM analysis,

10   in particular the expected market return from which the Market Risk Premium is calculated;

11   (5) the assumptions and methods underlying Mr. Walters' Risk Premium analyses; and (6)

12   Mr. Walters' assessment of the Company's relative risk.

13

14   **A.   Market Conditions and Utility Risk Profiles**

15   Q73.   WHAT   IS   YOUR   RESPONSE   TO   MR.   WALTERS'   OBSERVATION   THAT

16   UTILITIES RESPRESENT A "LOW RISK"[169] INVESTMENT?

17   A.   If Mr. Walters' point is that utilities are less risky than the broad market, there is no dispute;

18   the fact that utilities tend to have Beta coefficients less than 1.00 shows that to be the case.

19   At the same time, the average Beta coefficient for Mr. Walters' proxy group is 0.60,[170]

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[168]   *Ibid.*, at 49.

[169]   *Ibid.*, at 81.

[170]   Source: Schedule CCW-15, *Ibid.*, at 44.

1   suggesting a meaningful degree of risk. For example, in 2008, when the market lost about

2   40.00 percent of its value, the SNL Electric Company index lost about 27.00 percent of its

3   value.[171] In fact, from September through December 2008, when the overall market lost

4   about 28.00 percent of its value, the correlation between the SNL Electric Company Index

5   and the S&P 500 averaged approximately 80.00 percent.[172] That is, when the capital

6   markets became increasingly distressed, utility valuations also decreased, much like the

7   overall market, but not to the same extent.

8

9   Q74.   MR. WALTERS REFERS TO SEVERAL RECENT REPORTS BY S&P, MOODY'S,

10   AND FITCH, CONCLUDING THAT THE CURRENT RATING OUTLOOK FOR

11   REGULATED UTILITIES IS STABLE.[173] DO YOU HAVE A RESPONSE TO MR.

12   WALTERS ON THAT POINT?

13   A.   Yes. I recognize that Mr. Walters referred to certain of the rating agency reports discussed

14   in my Revised Direct Testimony. He notes those reports discuss the uncertainties

15   surrounding the implications of tax reform,[174] a point also discussed in my Revised Direct

16   Testimony.[175]

17

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[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.

1   Q75.   WHAT ARE SOME OF THE POTENTIAL IMPLICATIONS OF RATING AGENCY

2   COMMENTS REGARDING UTILITY CAPITAL EXPENDITURES?

3   A.   Mr. Walters' Figure 2 demonstrates that utility capital investment has "increased

4   considerably" and is expected to "remain high" in the 2018-2020 forecast period relative

5   to the prior ten-year historical period.[176] All three rating agencies have observed the

6   negative effects of the TCJA on utilities' cash flow and the potential consequences for their

7   credit profiles;[177] Moody's did so as recently as June 2018. It therefore is clear that

8   continued access to external capital at reasonable rates will be important to fund capital

9   expenditures, as Mr. Walters observes.[178] It also is clear that the markets in which that

10   capital will be raised reflect higher expected interest rates and greater volatility than those

11   experienced even over the past two years.[179]

12

13   Q76.   DO YOU HAVE ANY OBSERVATIONS REGARDING THE ANNUAL AVERAGE

14   AUTHORIZED RETURNS DISCUSSED IN PAGES 4-5 OF MR. WALTERS' DIRECT

15   TESTIMONY?

16   A.   Yes, I do. Average annual data obscures variation in returns and does not address the

17   number of cases or the jurisdictions issuing orders within a given year. For example, one

18   year may have fewer cases decided, and a relatively large portion of those cases decided

---

[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.

1   by a single jurisdiction. As shown in Chart 12, if all authorized ROEs are charted, rather

2   than the simple average, there is no meaningful trend since 2014; time explains less than

3   1.00 percent of the change in ROEs, and the trend is statistically insignificant.

4   **Chart 12: Electric Authorized Returns (2014-2019)[180]**
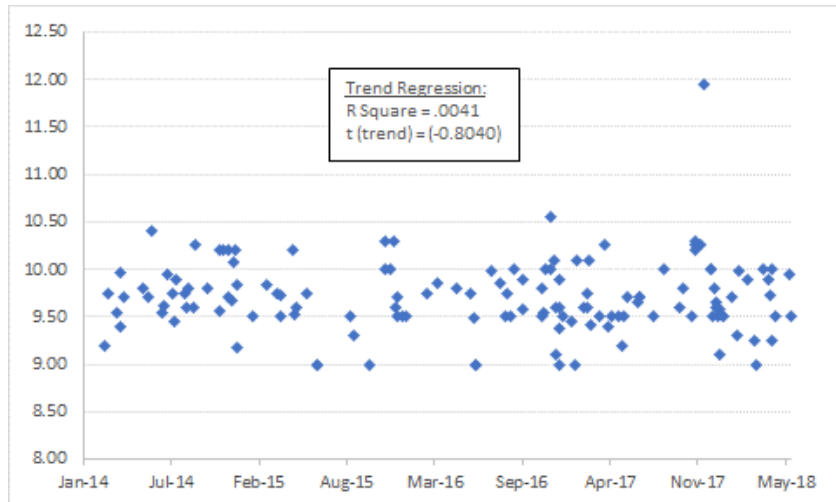
5   From a slightly different perspective, the recent fluctuations around the annual

6   average authorized return data are well within the standard deviation of authorized ROEs,

7   as shown in Table 5, below.

8   **Table 5: Mean and Standard Deviation of Authorized Returns (2014-2019)[181]**

Year	Average	Standard Deviation
2014	9.78%	0.30
2015	9.64%	0.38
2016	9.66%	0.35
2017	9.74%	0.48
2018	9.60%	0.32

---

[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.

1   From that perspective as well, there is no reason to conclude authorized returns have fallen

2   since 2014.

3   Mr. Walters also argues that "the most frequent distribution of authorized equity

4   returns is less than 9.7%".[182] In support of his argument, he presents the distribution of

5   authorized ROEs for the years 2016, 2017, and 2018 in his Table 1. However, Mr. Walters'

6   Table 1 includes authorized ROEs for electric distribution utilities, including ROEs

7   authorized under the Illinois Formula Rate proceedings.[183] If Mr. Walters' Table 1 were

8   revised to present the statistics for only vertically integrated electric utilities, the result

9   would demonstrate that (1) the mean was 9.75 percent, (2) the median was 9.70 percent,

10   and (3) a majority of authorized ROEs were 9.70 percent and higher (*see* Table 6 below).

11   **Table 6: Distribution of Authorized ROEs: Vertically Integrated Electric Cases[184]**

Year	Average	Median	Share of Decisions 9.70% and Higher
2016	9.77%	9.78%	55.00%
2017	9.80%	9.65%	46.43%
2018	9.68%	9.75%	59.09%
Total	9.75%	9.70%	52.86%

---

[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.

1   **B.   Constant Growth DCF Model**

2   Q77.   AS A PRELIMINARY MATTER, DOES MR. WALTERS GIVE HIS CONSTANT

3   GROWTH DCF RESULTS ANY WEIGHT IN ARRIVING AT HIS 9.35 PERCENT ROE

4   RECOMMENDATION?

5   A.   Yes.   As noted earlier, Mr. Walters' 9.35 percent recommendation represents the

6   approximate midpoint of his 9.00 percent to 9.70 percent recommended range. The lower

7   bound of Mr. Walters' range (9.00 percent) is based on his DCF results, and the upper

8   bound (9.70 percent) is based on his Risk Premium results. [185] To arrive at his DCF-based

9   recommendation, Mr. Walters gives primary weight to his Constant Growth DCF model

10   results based on analysts' growth rate projections (8.86 percent to 9.30 percent), but notes

11   he "also considers the results of [his] other DCF models."[186]

12

13   Q78.   DO YOU HAVE ANY CONCERNS WITH THE CONSTANT GROWTH DCF MODEL

14   IN GENERAL AND THE WEIGHT MR. WALTERS APPLIES TO THOSE RESULTS

15   IN PARTICULAR?

16   A.   Yes, I do. In addition to the reasons discussed in Section II, the Constant Growth DCF

17   model is based on several underlying assumptions establishing an inverse relationship

18   between expected growth and the dividend yield. Under those assumptions, as higher

19   growth produces higher prices, and lower dividend yields. Conversely, lower growth

20   produces lower prices, and higher dividend yields. Contrary to those fundamental

---

[185]   Direct Testimony of Christopher C. Walters, at 49.

[186]   *Ibid.*, at 38. Clarification added.

1   assumptions, Mr. Walters' Constant Growth DCF analysis applies historically high

2   valuations (*see* Chart 13, below), but comparatively low growth rates.

3   **Chart 13: Mr. Walters' Proxy Group Rolling Average P/E Ratio[187]**
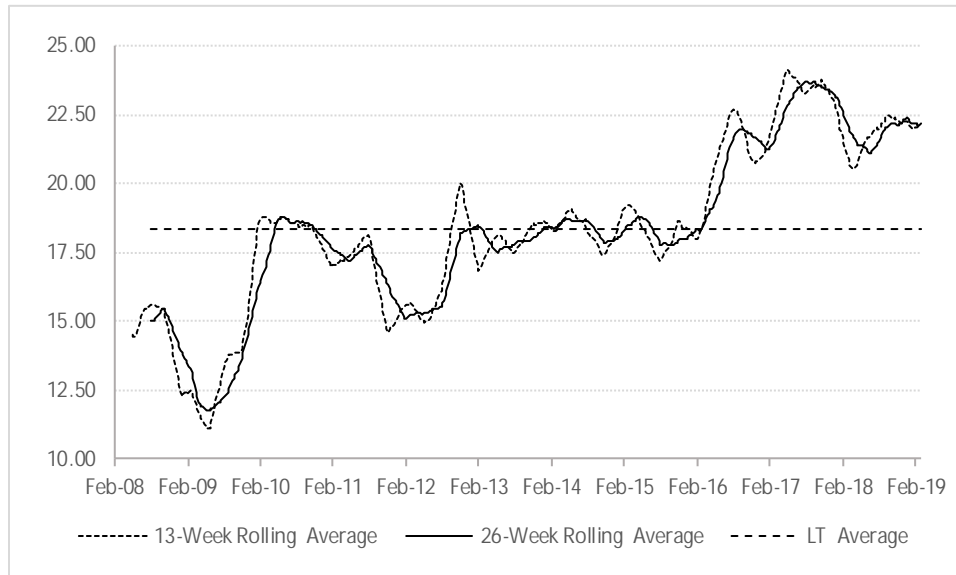
4   As Mr. Walters acknowledges, unsustainable expansions in P/E ratios create

5   analytical concerns. For example, at pages 46-47 of his Direct Testimony, Mr. Walters

6   discusses the Market Risk Premium component of his CAPM and explains Ibbotson &

7   Chen's finding regarding an "abnormal expansion" of P/E ratios relative to earnings and

8   dividend growth. Because higher P/E ratios were not explained by higher growth in

9   earnings or dividends, Ibbotson and Chen's analyses required adjustments.[188] Duff &

10   Phelps, the source referenced by Mr. Walters, provides that adjustment using three-year

11   average P/E ratios, rather than relying on the current year, because "the three-year average

12   allows the adjustment to smooth out the volatility of extraordinary events and allows

---

[187]   Source: S&P Global Market Intelligence. Rolling 13-week and 26-week average.

[188]   Direct Testimony of Christopher C. Walters, at 47, <u>citing</u> Duff & Phelps <u>2018 Valuation Handbook</u>, at 3-43.

1   earnings to better reflect a normalized trend."[189] Duff & Phelps recognized that the long-

2   term trend of the level of P/E ratios is important, and that abnormally high P/E ratios will

3   produce questionable analytical results.

4   The same conditions hold here. As shown in Chart 13, the utility sector has

5   undergone an "abnormal expansion" in P/E ratios, which should not be expected to remain

6   constant in perpetuity. Consequently, Constant Growth DCF results reflecting abnormal

7   capital market conditions should be viewed with caution and given less weight. Whereas

8   Duff & Phelps recognized and adjusted its analyses to reflect the abnormal expansion in

9   P/E ratios, Mr. Walters' DCF analyses, and his interpretation of their results, do not. In

10   short, I disagree with Mr. Walters' conclusions and continue to believe less weight should

11   be given to the Constant Growth DCF model under current market circumstance.

12

13   **C.   Application of the Multi-Stage DCF Model**

14   Q79. DO YOU AGREE WITH MR. WALTERS' APPLICATION OF THE MULTI-STAGE

15   DCF MODEL?

16   A.   No, I do not. Mr. Walters' Multi-Stage DCF model contains several assumptions that

17   produce unreasonably low ROE estimates. In particular, Mr. Walters' model assumes a

18   perpetual growth rate beginning in the eleventh year of his model (that is, beginning in

19   calendar year 2029) based on a GDP growth rate projection that actually ends in 2029.[190]

20   In addition, Mr. Walters assumes all dividends are received at year-end, rather than over

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[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.

1   the course of the year.

2

3   Q80.   HOW DOES MR. WALTERS' ASSUMPTION AS TO THE TIMING OF DIVIDEND

4   PAYMENTS UNREASONABLY DECREASE HIS MULTI-STAGE DCF MODEL

5   RESULTS?

6   A.   Mr. Walters notes that quarterly dividends in his Constant Growth DCF model were

7   "annualized (multiplied by 4)."[191] Considering that Mr. Walters' proxy companies pay

8   dividends on a quarterly basis, assuming (as Mr. Walters has done) that the entire dividend

9   is paid at the end of that year essentially defers the timing of the quarterly cash flows (that

10   is, the quarterly dividends) until year-end, even though they are paid throughout the year.

11   A reasonable method of reflecting the timing of quarterly dividend payments is to assume

12   cash flows are received in the middle of each year (*i.e.*, the "mid-year convention"). As

13   Duff & Phelps notes:

14   Common practice in business valuation is to assume that the net cash
15   flows are received on average continuously throughout the year
16   (approximately equivalent to receiving the net cash flows in the middle
17   of the year), in which case the present value factor is generally based on
18   a mid-year convention (e.g., $(1+k)0.5$).[192]

19   Q81.   WOULD MR. WALTERS' MULTI-STAGE DCF RESULTS BE DIFFERENT IF HE

20   APPLIED THE MID-YEAR CONVENTION?

21   A.   Yes. ENO Exhibit RBH-28, which replicates Mr. Walters' Schedule CCW-9, demonstrates

22   that his model assumes year-end cash flows. As ENO Exhibit RBH-28 also demonstrates,

---

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

[192]   Duff & Phelps, 2016 Valuation Handbook, Guide to Cost of Capital at 1-4.

1   simply changing the dividend timing to reflect the mid-year convention increases the mean

2   and median results by approximately 13 basis points (from 7.78 percent and 7.67 percent,

3   to 7.91 percent and 7.80 percent, respectively). Even with that change, however, Mr.

4   Walters' model produces results too low to be reasonable estimates of the Company's Cost

5   of Equity.

6

7   Q82.   PLEASE FURTHER EXPLAIN YOUR CONCERN WITH THE LONG-TERM

8   GROWTH RATE IN MR. WALTERS' MULTI-STAGE DCF MODEL.

9   A.   The long-term growth rate represents the expected rate of growth, in perpetuity, as of the

10   beginning of the third, or terminal, stage. It is an important parameter, given that it

11   accounts for more than 70.00 percent of the model's results.[193] Mr. Walters' assumed

12   terminal growth rates is not consistent with his model's structure, nor is it consistent with

13   measures of growth noted elsewhere in his testimony.

14

15   Q83.   TURNING TO YOUR SECOND POINT, HOW DOES MR. WALTERS' ASSUMED

16   4.19 PERCENT GDP GROWTH RATE CONFLICT WITH OTHER ASPECTS OF HIS

17   ANALYSES?

18   A.   In his Table 7, Mr. Walters presents the results of his various analyses, including his 8.20

19   percent CAPM estimate. That estimate relies, in part, on a Market Risk Premium of 7.70

20   percent, which is based on an expected market return of 11.30 percent.[194] 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.

1   ENO Exhibit RBH-16, the current expected market dividend yield is approximately 2.10

2   percent, suggesting an expected growth rate of about 9.20 percent (11.30 percent - 2.10

3   percent). At pages 29-30 of his testimony, Mr. Walters compares utility earnings growth

4   rates to his expected GDP growth rate, concluding that one should correlate to the other.

5   If that is the case, Mr. Walters' CAPM analysis assumes economic growth could be as high

6   as 9.20 percent, well in excess of the 4.19 percent growth rate he uses to assess my

7   estimates.

8

9   Q84.   HAVE YOU CONSIDERED HOW MR. WALTERS' MULTI-STAGE DCF RESULTS

10   WOULD CHANGE IF IT INCLUDED A TERMINAL GROWTH RATE IN THE

11   RANGE OF 9.20 PERCENT?

12   A.   Yes. Rather than assume 9.20 percent, I solved for the terminal growth rate that would

13   produce mean and median ROE estimates of about 9.55 percent, consistent with the 2018

14   average authorized ROE provided in Mr. Walters' Schedule CCW-11. I then considered

15   that terminal growth rate relative to the 9.20 percent growth rate associated with Mr.

16   Walters' expected market return. As ENO Exhibit RBH-28 demonstrates, using Mr.

17   Walters' Multi-Stage DCF model (including the mid-year convention), a terminal growth

18   rate of 6.26 percent produces mean and median ROE estimates of 9.61 percent and 9.50

19   percent, respectively (average of 9.55 percent). That growth rate (6.26 percent) falls below

20   the midpoint of the 4.19 percent and 9.20 percent growth rates assumed in Mr. Walters'

21   other analyses (that midpoint being 6.70 percent). It also falls below the long-term average

22   nominal GDP growth rate of 6.34 percent reported by the Bureau of Economic Analysis.

1   Assuming the 6.70 percent midpoint as the terminal growth rate produces an average ROE

2   estimate of about 9.97 percent, well above Mr. Walters' 9.35 percent recommendation.

3

4   Q85.   WHAT CONCLUSIONS DO YOU DRAW FROM THOSE ANALYSES?

5   A.   Adjusting Mr. Walters' Multi-Stage DCF model to reflect growth rates associated with

6   other aspects of his analyses produces ROE estimates consistent with returns authorized in

7   other jurisdictions, and closer to my recommended range.

8

9   **D.   Application of the CAPM**

10   Q86.   PLEASE BRIEFLY SUMMARIZE MR. WALTERS' CAPM ANALYSIS AND

11   RESULTS.

12   A.   Mr. Walters' two CAPM estimates (7.30 percent and 8.20 percent) are based on two

13   measures of principally historical Market Risk Premium estimates, *Blue Chip Financial*

14   *Forecasts*' projected 30-year Treasury yield of 3.60 percent as the risk-free rate and an

15   average Beta coefficient of 0.60 as reported by Value Line.[195] Based on his assessment of

16   risk premiums in the current market, Mr. Walters relies on the high-end 8.20 percent

17   CAPM.[196] Mr. Walters' analyses assume Market Risk Premium estimates of 7.70 percent

18   (based on the long-term historical arithmetic average real market return from 1926 through

19   2017 as reported by Duff & Phelps, adjusted for current inflation forecasts) and 6.10

20   percent (based on the historical difference between the average return on the S&P 500 and

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[195]   *Ibid.*, at 48 and Schedule CCW-16.

[196]   *Ibid.*, at 48.

1   the average total return on long-term government bonds).[197] Combining those Market Risk

2   Premium estimates with his projected long-term risk-free rate, Mr. Walters develops

3   expected market returns in the range of 9.70 percent to 11.30 percent.[198]

4

5   Q87.   TURNING FIRST TO THE EXPECTED TOTAL MARKET RETURN, DO YOU

6   AGREE WITH MR. WALTERS' 9.70 PERCENT AND 11.30 PERCENT ESTIMATES?

7   A.   No, I do not. As a practical matter, Mr. Walters' 9.70 percent expected total market return

8   estimate, which is 236 basis points below the long-term average market return, falls outside

9   the range of average returns during the period 1976-2017 using 50-year annual averages;

10   his higher 11.30 percent estimate falls in the bottom 22nd percentile of the average return

11   over the last fifty years. [199] A helpful perspective on the historical market return is the

12   rolling 50-year average annual market return. As Mr. Walters points out, from 1926

13   through 2017 the arithmetic average market return was 12.10 percent.[200] Over time, the

14   rolling fifty-year mean return has been quite consistent, in the range of approximately 12.00

15   percent.[201] Taken from that perspective, Mr. Walters' 9.70 percent expected market return

16   is well below the long-term market experience and, therefore, is not reasonable.

17

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[197]   *Ibid*., at 45 and Schedule CCW-16.

[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.

[199]   Rolling average basis.

[200]   Direct Testimony of Christopher C. Walters, at 45.

[201]   Source: Duff & Phelps 2018 SBBI Yearbook, Appendix A-1.

1   Q88.   DO YOU AGREE WITH MR. WALTERS' USE OF THE HISTORICAL AVERAGE

2   MARKET RISK PREMIUM?

3   A.   No. For the reasons discussed in my response to the Advisors' Witness Mr. Proctor, I do

4   not agree that the historical average Market Risk Premium is appropriate for the CAPM.

5

6   **E.   Application of the Risk Premium Model**

7   Q89.   PLEASE BRIEFLY DESCRIBE MR. WALTERS' RISK PREMIUM ANALYSES.

8   A.   Mr. Walters defines the "Risk Premium" as the difference between average annual

9   authorized equity returns for electric utilities and a measure of long-term interest rates each

10   year from 1986 through 2018.[202] Mr. Walters' first approach calculates the annual risk

11   premium by reference to the 30-year Treasury yield, and his second approach considers the

12   average A-rated utility bond yield.[203]   In each case, Mr. Walters establishes his risk

13   premium estimate by reference to five-year and ten-year rolling averages. The lower and

14   upper bounds of Mr. Walters' Risk Premium range are defined by the lowest and highest

15   rolling average, respectively, regardless of the year in which those observations

16   occurred.[204]

17   Regarding the period over which he gathers and analyzes his data, Mr. Walters

18   argues his 33-year horizon is "appropriate"[205] for developing an Equity Risk Premium

19   estimate. On page 39 of his Direct Testimony, Mr. Walters further states "it is reasonable

---

[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.

1   to assume that averages of annual achieved returns over long time periods will generally

2   converge on the investors' expected returns" and concludes his risk premium study is based

3   on "investor expectations, not actual investment returns, and, thus, need not encompass a

4   very long historical time period."[206] Based on those assumptions, Mr. Walters calculates

5   a range of risk premium estimates of 4.25 percent to 6.72 percent using his Treasury bond

6   analysis, and 2.88 percent to 5.57 percent using his A-rated utility bond analysis.[207]

7   Combined with a 3.60 percent projected Treasury yield, a 4.44 percent A-rated

8   utility bond yield estimate, and a 4.96 percent Baa-rated utility bond yield estimate, Mr.

9   Walters' Risk Premium analysis produces results ranging from 7.32 percent to 10.53

10   percent.[208] To calculate his Risk Premium-based ROE recommended range, Mr. Walters

11   gives 75.00 percent weight to the high end of his risk premium estimates and 25.00 percent

12   to the low end. The 9.60 percent low end of his Risk Premium-based range reflects his

13   weighted risk premium estimates using the 13-week average utility bond yields of 4.44

14   percent and 4.96 percent.[209] Applying the same 75.00 percent and 25.00 percent weighting

15   to his high and low Treasury yield estimates, respectively, Mr. Walters produces the upper

---

[206]   *Ibid.*, at 40.

[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 x 7.32%) + (0.125 x 7.84%) + (0.375 x 10.01%) + (0.375 x 10.53%)

1   bound of his range of 9.70 percent.[210] Mr. Walters then concludes that upper bound of his

2   range (9.70 percent) is the appropriate Risk Premium-based ROE estimate.[211]

3

4   Q90. DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING MR. WALTERS'

5   RISK PREMIUM ESTIMATES AND HOW THEY WEIGH IN HIS OVERALL ROE

6   RECOMMENDATION?

7   A.   Yes, I do.   In assessing his DCF analyses, Mr. Walters relied on his highest results,

8   effectively discarding several other results that ranged from 7.67 percent to 7.92 percent.[212]

9   Similarly, in assessing his CAPM analysis, Mr. Walters relied on his high-end result,

10   discarding an 7.30 percent estimate.[213]   In his Risk Premium analysis, however, Mr.

11   Walters retained risk premiums that produced ROE estimates below the DCF and CAPM

12   estimates he discarded. Despite their low levels, Mr. Walters gave those risk premium

13   estimates (producing ROE results of 7.32 percent, 7.84 percent, and 7.85 percent) weights

14   of 25.00 percent in aggregate. Mr. Walters offers no explanation as to why he would

15   exclude DCF results of 7.92 percent and lower, yet include Risk Premium results of 7.32

16   percent, 7.84 percent, and 7.85 percent. The effect of including his low Risk Premium

17   results is to reduce his ROE range.

18

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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.

1 Q91. WHAT ARE YOUR SPECIFIC CONCERNS WITH MR. WALTERS' RISK PREMIUM

2   ANALYSIS?

3 A.   I have three concerns with his analysis: (1) Mr. Walters' method understates the required

4   risk premium in the current market because it ignores an important relationship confirmed

5   by his own data, *i.e.,* that the risk premium is inversely related to the level of interest rates

6   (whether measured by Treasury or utility bond yields); (2) the low end of Mr. Walters'

7   Risk Premium results is far lower than any ROE authorized since at least 1986 and, as such,

8   has no relevance in estimating the Company's Cost of Equity; and (3) Mr. Walters suggests

9   that a Market/Book ("M/B") ratio of 1.00 is a relevant benchmark for assessing authorized

10   ROEs.[214]

11

12 Q92. TURNING FIRST TO THE ISSUE OF M/B RATIOS, DO YOU AGREE WITH MR.

13   WALTERS THAT M/B RATIOS SHOULD BE USED TO ASSESS THE

14   REASONABLENESS OF ROE RECOMMENDATIONS?

15 A.   No. Although Mr. Walters frames his discussions in the context of authorized returns

16   "sufficient to support market prices that at least exceeded book value,"[215] he does not

17   suggest whether the M/B ratio should exceed some level or even explain the relationship

18   between authorized returns and M/B ratios.

19   The M/B ratio equals the market value (or stock price) per share, divided by the

20   total common equity (or the book equity) per share. Book value per share is an accounting

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214   *Ibid.*, at 37–38.

215   *Ibid.*

1   construct, which reflects historical costs. In contrast, market value per share (*i.e.,* the stock

2   price) is forward-looking, and a function of many variables, including (but not limited to)

3   expected earnings and cash flow growth, expected payout ratios, measures of "earnings

4   quality," the regulatory climate, the equity ratio, expected capital expenditures, and the

5   earned return on common equity.

6

7   Q93.   ARE YOU AWARE OF ANY PUBLISHED RESEARCH THAT ADDRESSES THE

8   ISSUE OF M/B RATIOS IN THE CONTEXT OF THE CONSTANT GROWTH DCF

9   MODEL?

10   A.   Yes. As Branch *et al.* point out, the M/B ratio generally is greater than or equal to one

11   because the value of the firm as a going concern (price per share) generally exceeds the

12   liquidation value (book value per share) and "…firms having going concern values greater

13   than their liquidation values (most firms) and firms having finite prices (all firms) should

14   have ROE > R> G."[216] Taken from that perspective M/B ratios in excess of unity should

15   not be surprising; if the liquidation value exceeds the market value, the company would be

16   liquidated.

17

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

19   MARKET?

20   A.   Yes, they have. As Chart 14 (below) demonstrates, since 1990 the average M/B ratio for

21   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.

1   **Chart 14: S&P 500 Market/Book Ratio Over Time[217]**

2   If investors, over many years and across many companies, felt that the returns they

3   expected had so significantly exceeded the returns they required, they would adjust their

4   requirements.

5   That finding also is consistent with U.S. Generally Accepted Accounting Principles

6   ("GAAP") and International Financial Reporting Standards, which require firms to carry

7   the value of assets on their books at the historical cost of those assets. Only under specific

8   circumstances may the value of certain financial investments be carried at market value.[218]

9   As a result:

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

---

[217]   Source: Bloomberg Professional.

[218]   Financial Accounting Standards Board Rule 157.

1   most other firms, accountants do not mark the net assets involved with

2   operations to market. The application of historical cost accounting,

3   exacerbated by the application of conservative accounting, introduces a

4   difference between price and book value.[219]

5

6   Q95.   ARE YOU AWARE OF RESEARCH FOCUSING ON THE M/B RATIOS OF

7   REGULATED UTILITIES?

8   A.   Yes, such research has long concluded that regulation may not necessarily result in M/B

9   ratios approaching unity. As noted by Phillips in 1993:

10   Many question the assumption that market price should equal book value,

11   believing that 'the earnings of utilities should be sufficiently high to achieve

12   market-to-book ratios which are consistent with those prevailing for stocks

13   of unregulated companies.' [220]

14   In 1988 Bonbright stated:

15   In the first place, commissions cannot forecast, except within wide limits,

16   the effect their rate orders will have on the market prices of the stocks of

17   the Company they regulate. In the second place, whatever the initial market

18   prices may be, they are sure to change not only with the changing prospects

19   for earnings, but with the changing outlook of an inherently volatile stock

20   market. In short, market prices are beyond the control, though not beyond

21   the influence, of rate regulation. Moreover, even if a commission did

22   possess the power of control, any attempt to exercise it ... would result in

23   harmful, uneconomic shifts in public utility rate levels. [221]

24   As noted by Stewart Myers in 1972:

25   In short, a straightforward application of the cost of capital to a book value

26   rate base does not automatically imply that market and book values will be

27   equal. This is an obvious but important point. *If straightforward*

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[219]   S. H. Penman, S.A. Richardson, and I. Tuna, "*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.

[220]   Charles F. Phillips, The Regulation of Public Utilities – Theory and Practice (Public Utility Reports, Inc., 1993) at 395.

[221]   James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates (Public Utilities Reports, Inc., 1988), at 334.

1   *approaches did imply equality of market and book values, then there would*
2   *be no need to estimate the cost of capital.* It would suffice to lower (raise)
3   allowed earnings whenever markets were above (below) book [emphasis
4   added].[222]

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

6   ratios equal 1.00:

7   The third and perhaps most important reason for caution and skepticism is
8   that application of the DCF model produces estimates of common equity
9   cost that are consistent with investors' expected return only when stock
10   price and book value are reasonably similar, that is, when the M/B is close
11   to unity. As shown below, application of the standard DCF model to utility
12   stocks understates the investor's expected return when the market-to-book
13   (M/B) ratio of a given stock exceeds unity. This was particularly relevant
14   in the capital market environment of the 1990s and 2000s whose utility
15   stocks are trading at M/B ratios well above unity and have been for nearly
16   two decades. The converse is also true, that is, the DCF model overstates
17   the investor's return when the stock's M/B ratio is less than unity. The
18   reason for the distortion is that the DCF market return is applied to a book
19   value rate base by the regulator, that is, a utility's earnings are limited to
20   earnings on a book value rate base.[223]

21

22   Q96.   WHAT WOULD BE THE RESULT IF REGULATORY COMMISSIONS DID FORCE

23   M/B RATIOS TOWARD UNITY?

24   A.   Looking to Mr. Walters comparison group, the average capital loss for equity investors

25   would be about 51.30 percent.[224] That loss would not just affect investors, it also would

26   substantially diminish the ability of utilities to attract external capital.   To summarize, if

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[222]   *See*, Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 366, citing Stewart C. Myers, *The Application of Finance Theory to Public Utility Rate Cases*, The Bell Journal of Economics and Management Science, Vol. 3, No. 1 (Spring 1972), at 76.

[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.

1   regulatory commissions were to set rates with an eye toward moving the M/B ratio toward

2   unity, that practice may well impede the ability to attract the capital required to support its

3   operations, especially in markets during which the M/B ratio for the overall market is

4   significantly greater than 100.00 percent.

5

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

7   A.   Yes. It is important to keep in mind that in practice, the M/B ratio is used as a measure of

8   relative, not absolute valuation. That is, it typically is used by investors to assess the value

9   of an asset or enterprise relative to the prevailing M/B ratios of comparable assets or

10   enterprises.   Its use as a measure of relative value simply reflects the practical

11   understanding that no one model, including the present value structure that underlies the

12   Constant Growth DCF model, should be relied on as the sole measure of value.

13

14   Q98.   WHAT DID YOUR ANALYSIS OF MR. WALTERS' RISK PREMIUM ANALYSES

15   INDICATE?

16   A.   Because Mr. Walters failed to consider the inverse relationship between interest rates and

17   the Equity Risk Premium, his Risk Premium ROE estimates are biased downward.

18   Considering first the Treasury yield-based analysis, I plotted the yields and Risk Premia

19   over the 1986 to 2018 period included in Mr. Walters' analysis. Chart 15 (below) clearly

20   indicates the inverse relationship between interest rates and the Equity Risk Premium,

21   based on Mr. Walters' data.

1 **Chart 15: Mr. Walters' Treasury Yield-Based Risk Premium Data[225]**
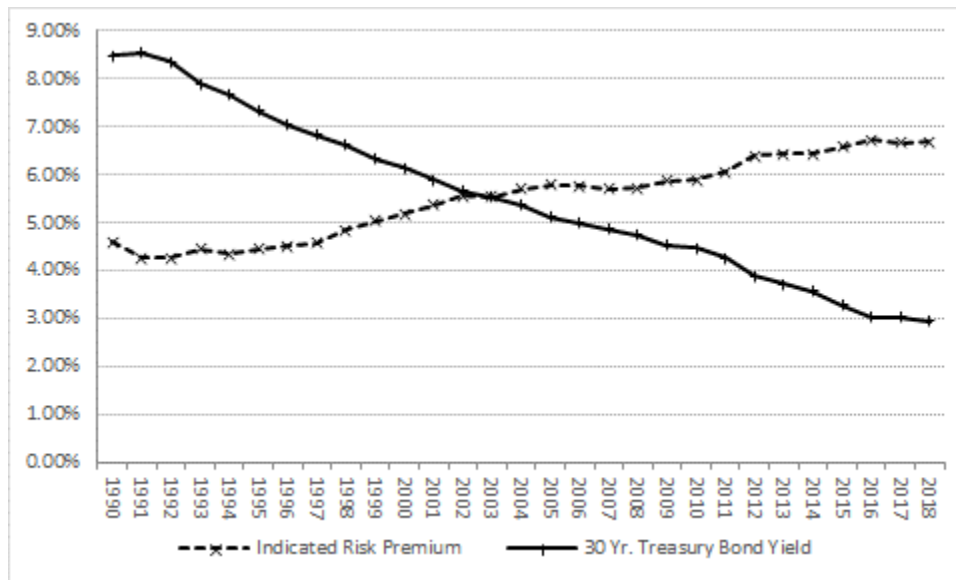
2   There are several other points made clear in Chart 15. First, the low end of Mr.

3 Walters' Risk Premium range, 4.25 percent, was observed in the five-year period ending

4 1991. There is little question that Risk Premium estimates associated with economic

5 environments 28 years ago have little to do with current market conditions. For example,

6 prior to 2002, Treasury yields exceeded the Risk Premium (on a five-year average basis).

7 As Chart 15 (*see also* ENO Exhibit RBH-29) demonstrates, since then, the opposite has

8 been true – the Risk Premium has consistently exceeded Treasury yields. It therefore is

9 clear that the low end of Mr. Walters' range has little, if any, relevance to the current market

10 environment.

11   The high end of Mr. Walters' range, 6.72 percent, occurred more recently (for the

12 five-year period ending 2016). In fact, as Schedule CCW-11 indicates, Mr. Walters' Equity

13 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.

1   through 2018.[226] Adding that 6.75 percent Equity Risk Premium to Mr. Walters' projected

2   Treasury yield of 3.60 percent produces an ROE estimate of 10.35 percent, within my

3   recommended ROE range.

4

5   Q99.   HAS THE RISK PREMIUM INCREASED AS TREASURY YIELDS HAVE

6   DECREASED?

7   A.   Yes. The relationship between the five-year average Equity Risk Premium and Treasury

8   yields is very clear. A simple linear regression demonstrates the two are highly related,

9   with a Coefficient of Determination (R-Square) of approximately 96.50 percent (*see* Chart

10   16, below).[227]

11

---

[226]   Based on Indicated Risk Premium.

[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]

1   **Chart 16: Treasury Yield vs. Equity Risk Premium**

2   **(Five-Year Rolling Average)[228]**
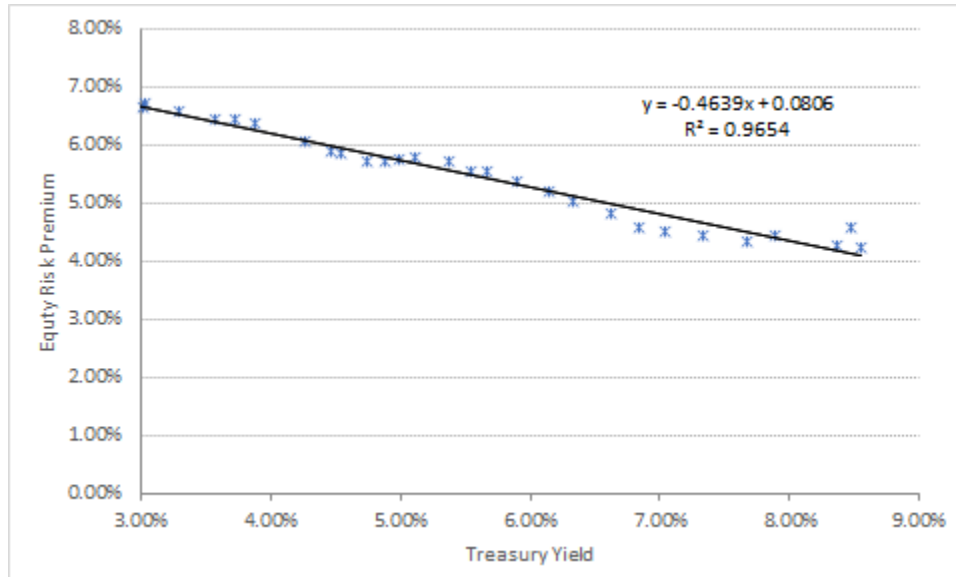
3   Turning back to Mr. Walters' data, a simple linear regression analysis using annual

4   (rather than the rolling-average data) demonstrates that for every 100-basis point decrease

5   in Treasury yields, the Equity Risk Premium increases by approximately 44 basis points

6   (*see* ENO Exhibit RBH-30).[229]   Similarly, the Equity Risk Premium increases

7   approximately 45 basis points for every 100-basis point decrease in utility bond yields.

8   Those results are consistent with those reported by Maddox, Pippert, and Sullivan, who

9   determined that the Risk Premium would increase by 37 basis points for every 100-basis

10   point change in the 30-year Treasury yield.[230]

---

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

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

[230]   *See* Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Vol. 24, No. 3, Autumn 1995 at 93.

1   Contrary to Mr. Walters' position, accounting for additional factors, such as credit

2   spreads (taken from Mr. Walters' exhibits), does not change the sign, statistical

3   significance, or the magnitude of the slope coefficient.[231]

4

5   Q100. WHAT ARE YOUR CONCLUSIONS REGARDING MR. WALTERS' RISK

6   PREMIUM ANALYSIS?

7   A.   Mr. Walters' use of rolling average estimates analysis does not negate the effect of his

8   reliance on outdated and unrepresentative data, and the conclusions he draws from that

9   data. Although he argues more variables are at play, Mr. Walters' own data strongly

10   support the finding that the Equity Risk Premium is inversely related to interest rates.

11   Taking that finding into account leads ROE estimates of nearly 10.00 percent, relative to

12   his 9.35 percent recommendation.[232]

13

14   **F.   Response to Mr. Walters' Criticisms of Company Analyses**

15   Q101. PLEASE SUMMARIZE MR. WALTERS' CRITICISMS OF YOUR COST OF EQUITY

16   ANALYSES.

17   A.   Mr. Walters asserts my estimated ROE is overstated and should be rejected because (1) my

18   Constant Growth DCF results are based on unsustainably high growth rates; (2) my Multi-

19   Stage DCF is based on an "unrealistic" long-term growth rate, a "manipulated" dividend

20   payout ratio, and "unjustified" terminal P/E ratio assumptions; (3) my CAPM is based on

---

[231]   *See* ENO Exhibit RBH-30.

[232]   *See*, *for example*, ENO Exhibit RBH-29, which present a range of results from 9.71 percent to 9.99 percent.

1   inflated estimates of the Market Risk Premia; and (4) my Bond Yield Plus Risk Premium

2   is based on an inflated utility Equity Risk Premium.[233] Additionally, Mr. Walters asserts

3   that ENO's business risks are captured in its credit rating and that a flotation cost

4   adjustment is not appropriate.[234]

5

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

7   A.   Although he accepts most companies in my proxy group, Mr. Walters is critical of NextEra

8   Energy, Inc. ("NextEra") and Southern Company ("Southern"), due to a transaction

9   between the two companies in which Next Era acquired Gulf Power Company and Florida

10   City Gas from Southern.[235]

11

12   Q103. DO YOU AGREE THAT THE TRANSACTION BETWEEN NEXTERA AND

13   SOUTHERN IS SIGNIFICANT ENOUGH TO WARRANT THEIR REMOVAL FROM

14   THE PROXY GROUP?

15   A.   No, I do not. The purchase of Gulf Power Company and Florida City Gas from Southern

16   Company ("Southern") is not transformative to the buyer or seller, either in terms of

17   relative market capitalization or operations. As Mr. Walters notes:

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

---

[233]   Direct Testimony of Christopher C. Walters, at 51.

[234]   *Ibid*., at 60–64.

[235]   *Ibid*,, at 20.

1   impacts the reliability of the DCF and risk premium estimates for a
2   company involved in M&A.[236]

3   I agree with Mr. Walters on those points. However, Mr. Walters has not provided any

4   evidence to demonstrate NextEra and Southern's market factors were "distorted" by the

5   transaction. As shown in Chart 17 below, there was no significant effect on the stock prices

6   of the two companies at the time of the announcement. Over the last year (with the

7   exception of early August due to Southern's announcement of increased project costs at its

8   Vogtle nuclear plant[237]), NextEra and Southern have generally traded consistent with other

9   electric utilities (as measured by the SNL Electric Index). Consequently, I have kept

10   NextEra and Southern in my proxy group.

11   **Chart 17: Stock Price Change in NextEra and Southern**
12   **(January 2018 – February 2019)[238]**


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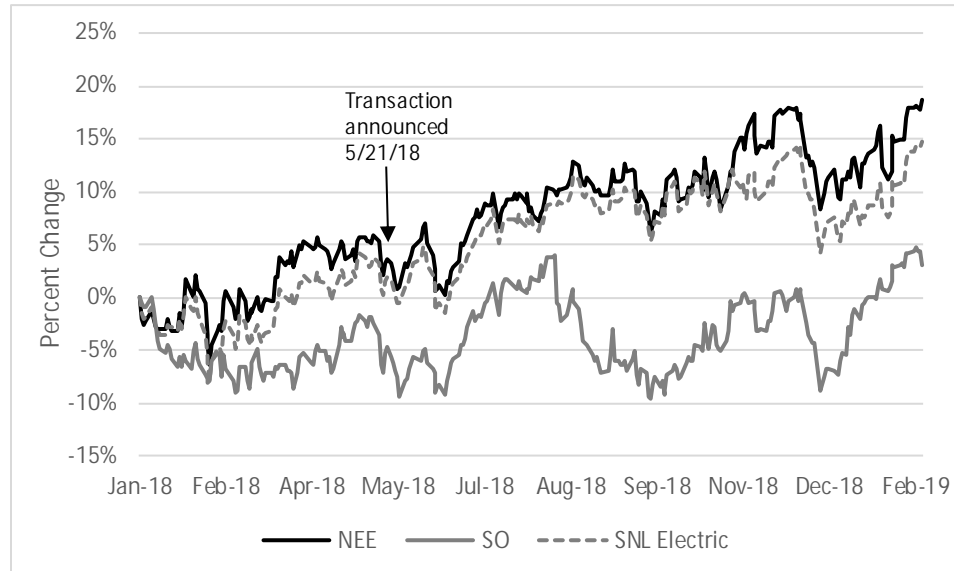
[236]   *Ibid*.

[237]   *See, e.g*., Regulatory Research Associates, "Southern CEO: Vogtle nuke write-off is 'short-term pain, but long-term gain'," August 8, 2018.

[238]   Source: S&P Global Market Intelligence.

1   Q104. ARE THE GROWTH RATES USED IN YOUR CONSTANT GROWTH DCF

2   ANALYSIS "UNSUSTAINABLY HIGH"?

3   A.   No, they are not. A capital appreciation rate of 5.67 percent (*i.e.*, the average growth rate

4   in the Constant Growth DCF analysis in my Revised Direct Testimony) and higher has

5   occurred quite often (*see* Chart 18 below).[239] That is, Chart 18 shows the number of times

6   historical observations have been in certain ranges. The growth rates Mr. Walters asserts

7   are "unsustainably high" by historical standards represent approximately the 42nd

8   percentile of the actual capital appreciation rates observed from 1926 to 2017.

9   **Chart 18: Frequency Distribution of Capital Appreciation Returns, 1926-2017[240]**

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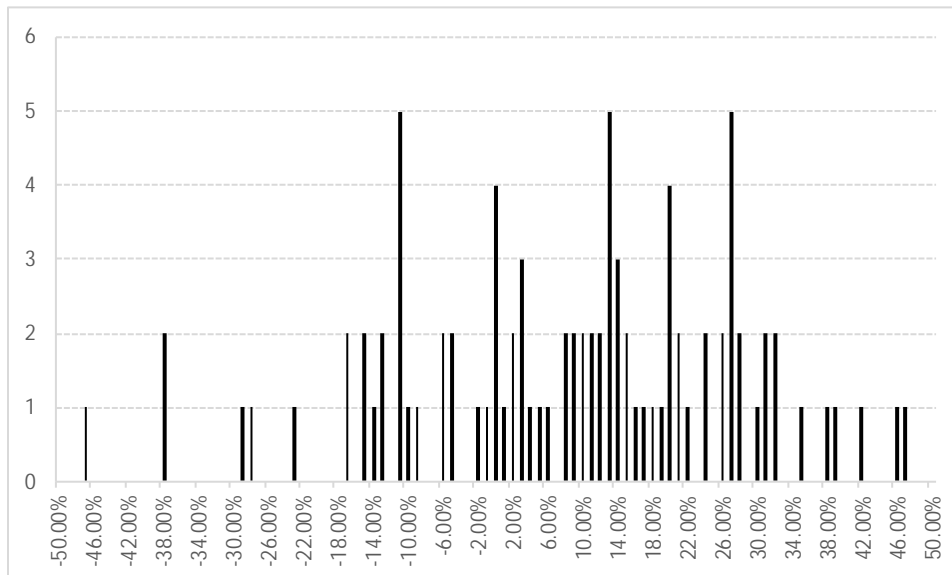
[239]   Under the Constant Growth DCF model's assumptions, the growth rate equals the rate of capital appreciation.

[240]   Duff & Phelps, 2018 SBBI Yearbook, at A-3.

1 Q105. PLEASE RESPOND TO MR. WALTERS' ASSERTION THAT YOUR MULTI-STAGE

2   DCF LONG-TERM GROWTH RATE IS INCONSISTENT WITH OTHER

3   CONSENSUS ESTIMATES OF LONG-TERM GDP GROWTH.

4 A. The long-term growth rate in my multi-stage DCF analysis reflects growth expectations

5   beginning ten years in the future, whereas Mr. Walters' consensus GDP projections are

6   current five- and ten-year projections. Because there are no consensus forecasts that begin

7   in ten years, it is reasonable to assume that real growth will revert to its long-term average

8   over time. Because the terminal growth rate reflects expected growth in perpetuity, the

9   term of even the longest GDP forecast considered by Mr. Walters does not reflect the

10   expected, perpetual nature of the terminal growth assumed in the DCF model.

11   In his Multi-Stage DCF analysis, Mr. Walters cites to projections from the EIA,

12   Congressional Budget Office, and other sources including the SSA, and suggests that the

13   terminal growth rate in my Multi-Stage DCF analysis is too high.[241] Because of the

14   inherent uncertainty in economic projections, the SSA provides three sets of projections,

15   including intermediate, low-cost, and high-cost scenarios.[242] My long-term growth

16   estimate falls well within the range of the "scenarios" that the SSA considers.[243]

17   Mr. Walters' 4.19 percent long-term sustainable growth rate also is inconsistent

18   with market measures cited elsewhere in his testimony. For example, Mr. Walters does

---

[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.

1   not consider the use of long-term historical data to develop his terminal growth rate, yet he

2   relies on long-term historical data in his CAPM analyses. That is, because Mr. Walters's

3   CAPM analysis looks to the long-term historical average Market Risk Premium, which

4   depends (at least in part) on long-term macroeconomic growth, he also should consider the

5   long-term GDP growth in the Multi-Stage DCF analysis. To that point, the data on which

6   Mr. Walters relies to perform his analysis undermines his claim that a 4.19 percent estimate

7   of long-term GDP growth is reasonable. According to Duff & Phelps (which provides the

8   data Mr. Walters relies on to estimate the historical Market Risk Premia), the arithmetic

9   average historical capital appreciation rate is 7.80 percent, which is substantially higher

10   than Mr. Walters' 4.19 percent estimate of long-term GDP growth.[244]

11   Historically, average annual GDP growth rates as low as 4.19 percent have been

12   infrequent. When measured over five-year periods, average annual GDP growth exceeded

13   4.19 percent in 71 of 85 periods. The same conclusion holds when growth is measured

14   over ten-year periods; the average annual GDP growth rate was greater than 4.19 percent

15   in 68 of 80 periods (*see* Charts 19 and 20 below).

---

[244]   Duff & Phelps, <u>2018 Valuation Handbook: Guide to Cost of Capital</u> at 2-4. Even if we were to consider the geometric 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.

1   **Chart 19: Average Annual GDP Growth Measured over Five-Year Periods[245]**
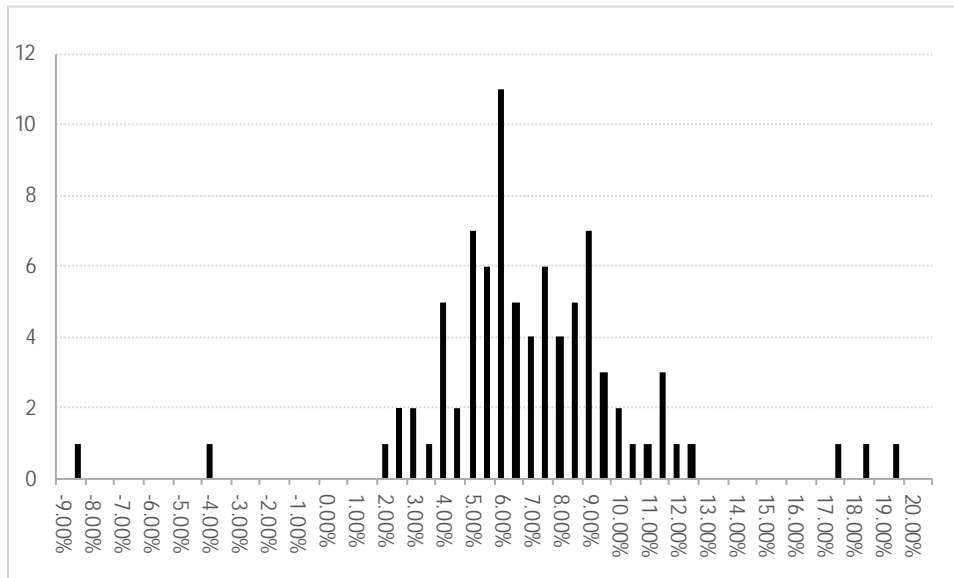
2   **Chart 20: Average Annual GDP Growth Measured over Ten-Year Periods[246]**

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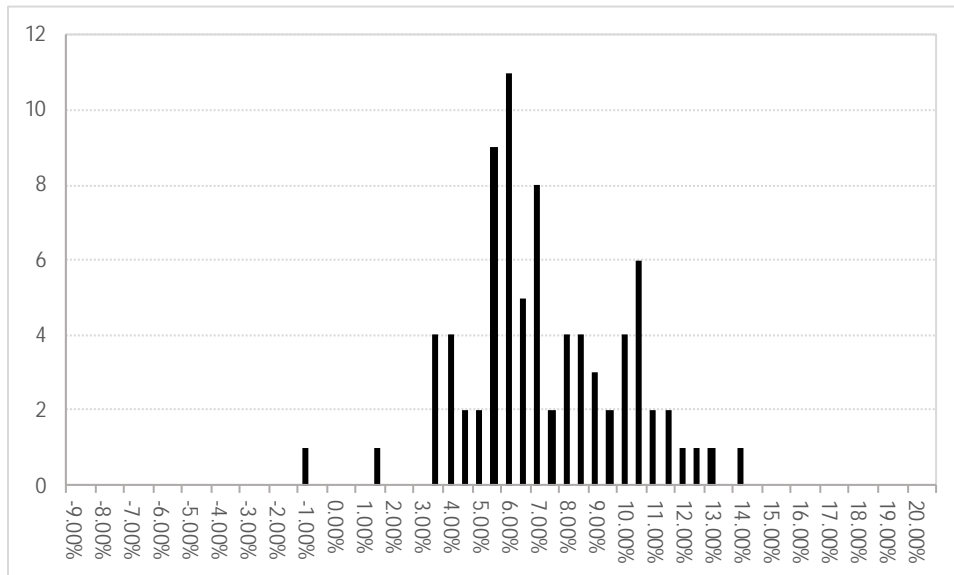
[245]   Bureau of Economic Analysis.

[246]   Bureau of Economic Analysis.

1 Q106. WHAT IS YOUR RESPONSE TO MR. WALTERS' ASSERTION THAT YOUR

2 PAYOUT RATIO ASSUMPTION IS UNREASONABLE?

3 A. Mr. Walters argues there is "no basis" to expect the dividend payout ratio of the proxy

4 group to increase or change between growth stages of the model.[247] I disagree. There are

5 several reasons why management may adjust dividend payments in the near term, such as

6 increases or decreases in expected capital spending. Because we cannot say those factors

7 will remain constant forever, it is reasonable to assume over time, payout ratios will revert

8 to their long-term average.

9 Several of Mr. Walters' proxy companies recently have discussed target payout

10 ratios that are highly consistent with my 65.57 percent terminal payout ratio. For example,

11 in late 2018 and early 2019 investor relations presentations, Alliant Energy, American

12 Electric Power, and NorthWestern Corporation noted target payout ratios in the range of

13 60.00 percent to 70.00 percent.[248] Additionally, RRA expects the dividend payout ratio for

14 electric utilities to rise from 61.70 percent in 2018 to 63.70 percent by 2021.[249] Because

15 my projected payout ratio is consistent with both historical experience and industry

16 expectations, it is entirely appropriate.

17

---

[247] Direct Testimony of Christopher C. Walters, at 59.

[248] Alliant Energy, UBS Midstream, MLP and Utilities Conference, January 15, 2019; American Electric Power, Evercore ISI Utility CEO Retreat, January 10-11, 2019; and NorthWestern Energy, Wells Fargo Energy Symposium, New York, December 5–6, 2018.

[249] Regulatory Research Associates Financial Focus *Utility Dividends: 2018 Review and Outlook*, January 24, 2019, at 8.

1 Q107. PLEASE RESPOND TO MR. WALTERS' CRITICISM OF YOUR TERMINAL P/E

2 MULTI-STAGE DCF APPROACH.[250]

3 A. My terminal P/E approach is consistent with the fundamental assumptions underlying the

4 Constant Growth DCF method. As discussed earlier in my response to Mr. Walters, the

5 utility sector recently has undergone an "abnormal expansion" in P/E ratios, which have

6 weighed on the Constant Growth DCF model's results. Mr. Walters cannot support the low

7 Constant Growth DCF estimates that result from abnormally high P/E ratios and that weigh

8 directly in his 9.35 percent ROE recommendation while criticizing the same assumption in

9 my Multi-Stage DCF model.

10

11 Q108. PLEASE SUMMARIZE MR. WALTERS' CONCERNS WITH YOUR CAPM

12 ANALYSIS.

13 A. Mr. Walters' concerns with my CAPM analysis lie primarily with my Market Risk

14 Premium estimates.[251] In particular, Mr. Walters argues my 15.73 percent and 16.10

15 percent projected returns on the market are "inflated."[252] Mr. Walters further argues there

16 is a "mismatch" between my calculation of the expected market return and the projected

17 Treasury yields used in my CAPM analyses.[253]

18

---

[250]   Direct Testimony of Christopher C. Walters, at 55, 60–61.

[251]   *Ibid*., at 62–63.

[252]   *Ibid*., at 63.

[253]   *Ibid*.

1   Q109.   WHAT IS YOUR RESPONSE TO MR. WALTERS?

2   A.   I disagree. The market return estimates presented in my Revised Direct Testimony, which

3   Mr. Walters asserts are "inflated,"[254] represent the approximately 53rd and 54th percentile

4   of actual returns observed from 1926 to 2017. Moreover, because market returns

5   historically have been volatile, my market return estimates are statistically

6   indistinguishable from the long-term arithmetic average market data on which Mr. Walters

7   relies.[255]

8   Mr. Walters also asserts the Market Risk Premia estimated from my projected

9   market returns are "inflated and not reliable."[256] I therefore gathered the annual Market

10   Risk Premia reported by Duff and Phelps and produced a histogram of the observations

11   (recall that Mr. Walters includes historical data among the methods he uses to estimate the

12   Market Risk Premium). The results of that analysis, which are presented in Chart 21 below,

13   demonstrate Market Risk Premia of at least 12.99 percent (the high end of the range of the

14   Market Risk Premium estimates in my Revised Direct Testimony) occur approximately

15   40.00 of the time.

---

[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.

1   **Chart 21: Frequency Distribution of Observed Market Risk Premia, 1926 – 2017[257]**
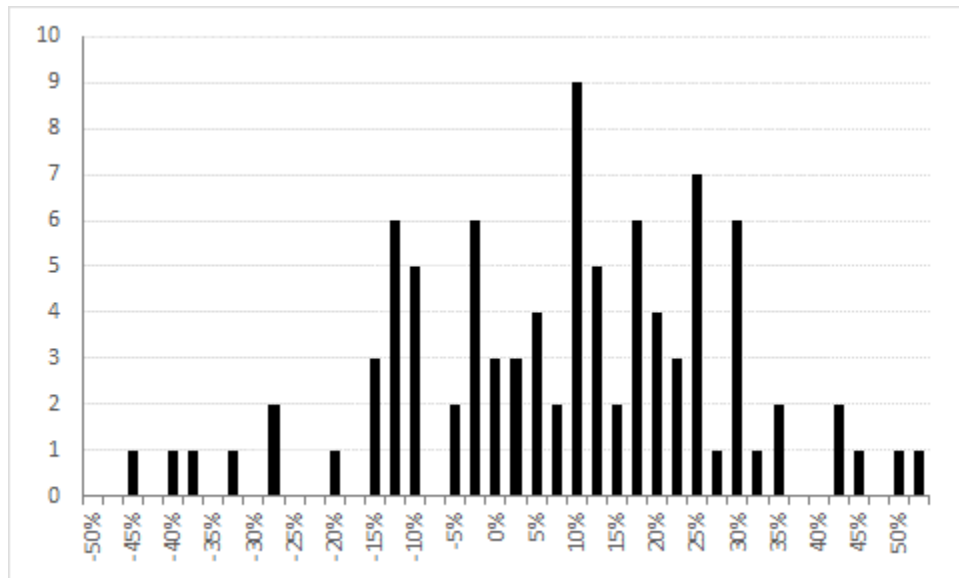
2   Q110. MR. WALTERS ALSO SUGGESTS YOUR EXPECTED MARKET RETURN IS

3   INFLATED BECAUSE THE EXPECTED GROWTH RATES EXCEED THE

4   HISTORICAL RATE OF CAPITAL APPRECIATION.[258] WHAT IS YOUR RESPONSE

5   TO MR. WALTERS ON THAT POINT?

6   A.   First, Mr. Walters refers to capital appreciation rates in the range of 6.00 percent to 7.80

7   percent.[259] To the extent either is meaningful in this context, it is the latter, which is the

8   arithmetic mean. That simply is because the arithmetic mean reflects uncertainty, whereas

9   the geometric mean (the 6.00 percent rate) equates a beginning value to an ending value,

10   with no uncertainty regarding the path from the beginning to the end. Because we are

---

[257]   ENO Exhibit RBH-31.

[258]   Direct Testimony of Christopher C. Walters, at 64–65.

[259]   *Ibid*., at 64.

1   focused on forward-looking estimates, which necessarily reflect uncertainty, the arithmetic

2   average capital appreciation rate is the appropriate measure.

3   Second, although Mr. Walters references the long-term capital appreciation rate, he

4   does not refer to the long-term average "income" rate (the dividend yield) of 4.00 percent,

5   or that the current expected market dividend yield is about 2.10 percent.[260]   Under the

6   "sustainable growth" model, the higher growth rates and lower dividend yields associated

7   with the current expected market return simply may mean that companies are retaining

8   more of their earnings relative to the historical average. In that case, the sustainable growth

9   method would produce growth rates higher than the historical average. Consequently, Mr.

10   Walters' observation that current expected growth rate is higher than the historical growth

11   rate does not demonstrate my estimates are unreasonable.

12

13   Q111. WHAT IS YOUR RESPONSE TO MR. WALTERS' CONCERN THAT THERE IS A

14   "MISMATCH" BETWEEN THE EXPECTED MARKET RETURN, AND THE

15   PROJECTED TREASURY YIELDS IN YOUR CAPM ANALYSIS?

16   A.   Mr. Walters argues that there is an "error" in my calculations because the risk-free rate

17   used to calculate the market risk premium is not the same risk-free rate used in my CAPM

18   estimates based on the near-term projected Treasury yields.[261] That is, Mr. Walters appears

19   to argue that the risk-free rate used to calculate the Market Risk Premium should be the

20   same as the risk-free rate term in the CAPM.[262]

---

[260]   Source: Bloomberg Professional, Value Line. *See* ENO Exhibit RBH-16.

[261]   Direct Testimony of Christopher C. Walters, at 65.

[262]   That is, Mr. Walters argues that in my analyses the term "r_f" should be the same number in the CAPM

1   Despite that concern, Mr. Walters' CAPM analysis relies on a method of

2   calculation that is comparable to mine. As Mr. Walters explains, his long-term historical

3   Market Risk Premium estimate (6.10 percent) is the difference between the average market

4   return (approximately 12.10 percent) and the total return of long-term Government bonds

5   (approximately 6.00 percent).[263] But his CAPM estimate, which is presented in his

6   Schedule CCW-16, assumes a risk-free rate component of 3.60 percent, not the 6.00

7   percent used in his Market Risk Premium calculation. That is, Mr. Walters' CAPM

8   estimate includes the same type of "mismatch" he claims is an "error" on my part. Had he

9   chosen to use the 6.00 percent risk-free rate that underlies the 12.10 percent market return,

10   Mr. Walters' CAPM estimate would have been 240 basis points higher.[264]

11

12   Q112. AT PAGE 81 OF HIS DIRECT TESTIMONY, MR. WALTERS ARGUES THAT YOUR

13   CONSIDERATION OF PROJECTED TREASURY YIELDS IS "UNREASONABLE"

14   BECAUSE YOU DO NOT CONSIDER "THE HIGHLY LIKELY OUTCOME THAT

15   CURRENT OBSERVABLE INTEREST RATES WILL PREVAIL DURING THE

16   PERIOD IN WHICH RATES DETERMINED IN THIS PROCEEDING WILL BE IN

17   EFFECT." IS MR. WALTERS CORRECT?

18   A.   No, he is not. Mr. Walters argues the "accuracy of forecasted interest rates is problematic

19   at best."[265] He states that over the last several years, "current observable interest rates are

---

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.

1   just as likely to accurately predict future interest rates as are economists' projections."[266]

2   Although Mr. Walters suggests current yields are a "more accurate predictor" of future

3   yields, he has not indicated what that level of accuracy might be, or how it figures in his

4   conclusion.   As Chart 22 (below) demonstrates, using the same quarterly convention

5   applied in Schedule CCW-18 (that is, comparing forecasts five quarters in the future to the

6   actual yields observed in those forecast quarters) shows actual yields were not accurate

7   predictors of future yields.   In fact, the forecast error generally was positive through 2015,

8   indicating that observed yields over-predicted actual yields.

9   **Chart 22: Forecast Error of Spot 30-Year Treasury Yields[267]**
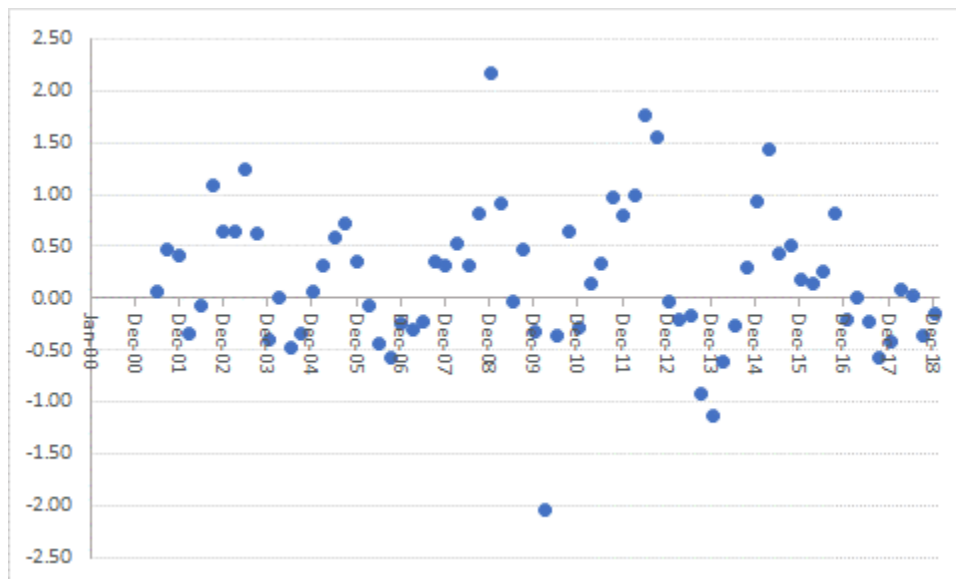
10   Those results make intuitive sense.   During much of the review period (2000

11   through 2018), interest rates were undergoing a secular decline; with the 2008/2009

12   recession, interest rates became the subject of Federal monetary policies specifically

---

[266]   *Ibid.,* at 82.

[267]   Source: Bloomberg Professional.

1   designed to keep them low. Because yields fell during that time, prior quarters were likely

2   to over-estimate future quarters.

3   Although interest yields steadily declined between 2000 and 2015, as noted in my

4   Revised Direct Testimony, in December 2015 the Federal Reserved began its process of

5   monetary policy normalization.[268]   The effect of that change in policy and improving

6   economic conditions is shown in Chart 23 (below), which limits the review period to the

7   seventeen quarters from December 2014 through December 2018. As interest rates have

8   begun to increase, spot Treasury yields have begun to under-project future yields.

9   **Chart 23: Forecast Error of Spot 30-Year Treasury Yields**
10   **Since December 2014[269]**

$y = -0.0009x + 37.127$
$R^2 = 0.5729$

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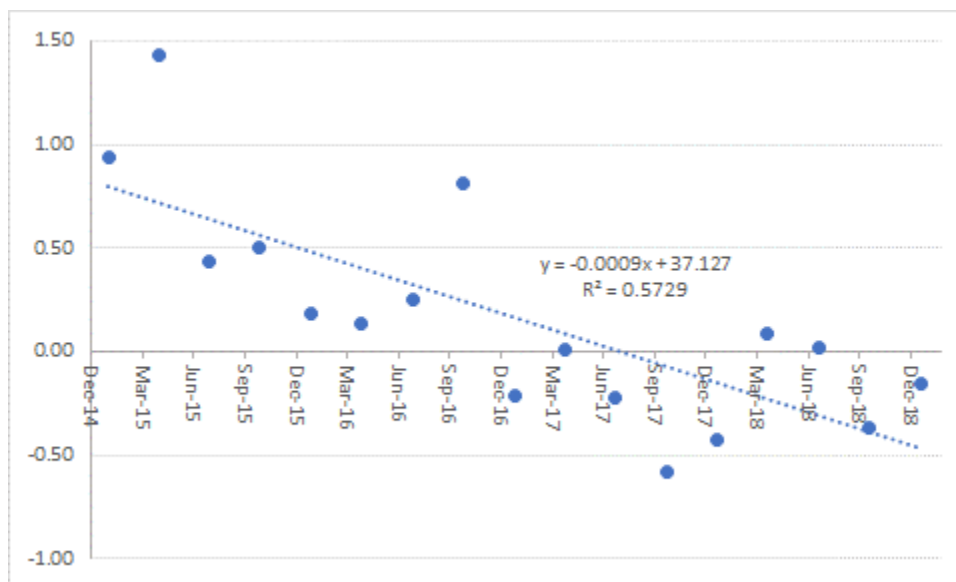
[268]   Revised Direct Testimony of Robert B. Hevert, at 67.

[269]   Source: Bloomberg Professional.

1   To the extent interest rates continue to increase, Mr. Walters' suggested approach of using

2   spot yields as a measure of forecast yields will systematically under-estimate Treasury

3   yields, and therefore systematically bias downward his model results.

4

5   Q113. PLEASE SUMMARIZE MR. WALTERS' CRITICISMS OF YOUR BOND YIELD

6   PLUS RISK PREMIUM ANALYSIS.

7   A.   Mr. Walters' concern with my Bond Yield Plus Risk Premium analysis is my "contention"

8   of a "simplistic inverse relationship" between the Equity Risk Premium and interest rates,

9   which he suggests is not supported by academic research.[270] He argues that the relevant

10   factor explaining changes in the Equity Risk Premiums is the change to equity risk relative

11   to debt risk, not changes in interest rates alone. Additionally, Mr. Walters asserts that the

12   relationship between the Equity Risk Premium and interest rates is weaker in "the 2010

13   through the April 2018 post-recession period".[271]

14

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

16 A.   Regarding the inverse relationship between the Equity Risk Premium and interest rates,

17   several academic studies support my findings.[272] Regarding his analysis using my data

---

[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.

[272]   *See*, *e.g.*, Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, *An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry*, Financial Management, Autumn 1995, at 89-95.

1   over the 2010 to June 2018 period, Mr. Walters argues that because the "R-squared" is only

2   45.00 percent, it suggests there is not a "strong relationship" between the two variables.[273]

3   I disagree. The salient question is whether the relationship is statistically significant. As

4   shown in Table 7, the T-statistics show that both the intercept and the 30-year Treasury

5   yield (the independent variable) are highly significant.[274]

6   **Table 7: Regression Coefficients for Bond Yield Plus Risk Premium Analysis,**

7   **January 2010 - June 2018**

	Coefficient	T-Statistic	P-Value	Standard Error
Intercept	-0.0103	-2.235	0.026	0.005
30-Year Treasury Yield	-0.0222	-16.367	0.000	0.001

8

9   Q115. DID YOU PERFORM ANY ADDITIONAL ANALYSES TO ADDRESS MR.

10   WALTERS' CONCERN REGARDING THE EFFECT OF EXPECTED MARKET

11   VOLATILITY AND INTEREST RATE ENVIRONMENTS ON YOUR RESULTS?

12   A.   Yes, I did. Although for the reasons discussed above I continue to believe the Risk

13   Premium is properly specified, I performed an additional analysis to specifically include

14   the effect of equity market volatility and credit spreads (*see* ENO Exhibit RBH-32). As

15   with my original Bond Yield Plus Risk Premium analysis, I defined the Risk Premium as

16   the dependent variable and the prevailing 30-year Treasury yield as an independent

17   variable. I then included two additional explanatory variables: (1) the VIX (the Chicago

18   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.

1   volatility); and (2) the credit spread between the 30-year Treasury yield and the Moody's

2   Baa Utility Index (as a measure of incremental risk).[275] In both instances, the statistically

3   significant inverse relationship between Treasury yields and the Risk Premium remains,

4   and the resulting ROE estimates are generally consistent with those of my original and

5   updated Bond Yield Plus Risk Premium analysis.[276]

6   Lastly, applying Mr. Walters' projected 3.60 percent 30-year Treasury yield to the

7   alternative Bond Yield Plus Risk Premium Analysis discussed above produces an ROE

8   estimate of 9.96 percent relative to Mr. Walters' 9.35 percent recommendation (*see* ENO

9   Exhibit RBH-32).[277]

10

11   Q116. WHAT IS MR. WALTERS' CONCERN WITH YOUR EVALUATION OF THE

12   COMPANY'S CAPITAL EXPENDITURE PLAN AS IT RELATES TO THE COST OF

13   EQUITY?

14   A.   Mr. Walters argues ENO's capital expenditure forecasts are not "out of line" with the utility

15   industry."[278] He point to his Schedule CCW-1,[279] noting that "the industry as a whole is

16   expected to require access to the external capital markets due to producing less cash flow

---

[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.

1   per share than capital spending per share."[280] However, nowhere does his analysis compare

2   ENO to "the utility industry", or demonstrate it is in line with the industry. As noted in my

3   Revised Direct Testimony, the Cost of Equity is necessarily a comparative exercise;

4   therefore, any analysis must compare the subject company to a comparable peer group,[281]

5   as I have done in ENO Exhibit RBH-8. As I demonstrated in ENO Exhibit RBH-8, the

6   Company's planned capital expenditures (as a share of net plant) are well above the proxy

7   group.

8

9   Q117. PLEASE SUMMARIZE MR. WALTERS' TESTIMONY AS IT RELATES TO

10   FLOTATION COSTS.

11   A.   Mr. Walters argues that the flotation cost adjustment is unreasonable because it is "not

12   based on the recovery of prudent and verifiable actual flotation costs incurred by ENO."[282]

13

14   Q118. WHAT IS YOUR RESPONSE TO MR. WALTERS REGARDING THE NEED TO

15   RECOVER FLOTATION COSTS?

16   A.   As explained in my Revised Direct Testimony, flotation costs are not reflected on the

17   income statement as they are not current expenses. Rather they are part of the invested

18   costs of the utility and are reflected on the balance sheet under "paid in capital."[283] Whether

19   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.

1   than the gross proceeds. Because flotation costs permanently reduce the equity portion of

2   the balance sheet, an adjustment must be made to the ROE to ensure that the authorized

3   return enables investors to realize their required return.

4   I have provided an illustrative example of the effect of flotation costs on the ROE

5   in ENO Exhibit RBH-33.[284] As shown in that exhibit, due to the effect of flotation costs,

6   an authorized return of 10.87 percent would be required to realize an ROE of 10.75 percent

7   (*i.e.,* a 12-basis point flotation cost adjustment). If flotation costs are not recovered, the

8   growth rate falls and the ROE decreases to 10.63 percent (*i.e.,* below the required return).[285]

9

10   **V.   RESPONSE TO CRESCENT CITY POWER USERS' GROUP WITNESS BAUDINO**

11   Q119. PLEASE   SUMMARIZE   MR.   BAUDINO'S   ROE   ANALYSES   AND   ROE

12   RECOMMENDATION IN THIS PROCEEDING.

13   A.   Mr. Baudino recommends an ROE of 9.35 percent, which is based on the results of his

14   Constant Growth DCF analyses applied to the proxy group of 22 companies used in my

15   Revised Direct Testimony.[286] Mr. Baudino also performs two CAPM analyses, which he

16   uses in support of his DCF results and recommended ROE.[287]

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[284]   This example is based on an analysis performed by Dr. Roger Morin. *See* Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at 330–332.

[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*.

1   Q120. WHAT ARE THE PRINCIPAL AREAS IN WHICH YOU DISAGREE WITH MR.

2   BAUDINO'S ROE ANALYSES?

3   A.   The principal areas in which I disagree with Mr. Baudino include: (1) his reliance on the

4   Constant Growth DCF model to determine the Company's Cost of Equity; (2) the growth

5   rates applied in the Constant Growth DCF model; (3) the application of the Multi-Stage

6   DCF model; (4) the risk-free rate and Market Risk Premium used in the CAPM; (5) whether

7   the Bond Yield Plus Risk Premium analysis provides reasonable estimates of the

8   Company's Cost of Equity; (6) our respective assessments of the Company's level of

9   business and financial risk; and (7) interpretation of current capital market conditions and

10   their effect on ROE.

11

12 Q121. AS A PRELIMINARY MATTER, MR. BAUDINO NOTES YOUR ROE

13   RECOMMENDATION IGNORES YOUR DCF RESULTS AND SUGGESTS YOUR

14   ROE RANGE SHOULD BE REJECTED BY THE CITY COUNCIL AS

15   UNSUPPORTED BY YOUR ANALYSES.[288]   WHAT IS YOUR RESPONSE?

16 A.   As noted in my Revised Direct Testimony and throughout my Rebuttal Testimony, all

17   models are subject to limiting assumptions and no single model is more reliable than all

18   others under all market conditions.   As also noted in my Revised Direct Testimony, it is

19   my view that the Constant Growth DCF model is subject to several assumptions that likely

20   are not consistent with current market conditions, and therefore should be given less weight

21   in the current capital market.   To that point (and as noted earlier), authorized returns

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[288]   *Ibid.*, at 33–39.

1   consistently have exceeded Constant Growth DCF estimates.[289] Further, as discussed in

2   Section II above, other regulatory commissions and the FERC have found it appropriate to

3   place less weight on the DCF model results. As to Mr. Baudino's argument that I reject

4   the results of two of my four methods, he rejects two out of his three approaches, relying

5   exclusively on his Constant Growth DCF model results. Lastly, although Mr. Baudino

6   argues that relying on the high DCF results is inappropriate, his 9.35 percent

7   recommendation is based on his high DCF result.[290]

8

9   **A.   Application of the Constant Growth DCF Model**

10   Q122. PLEASE BRIEFLY DESCRIBE MR. BAUDINO'S CONSTANT GROWTH DCF

11   ANALYSIS AND RESULTS.

12   A.   Mr. Baudino calculates an average dividend yield of 3.26 percent by dividing each proxy

13   company's annualized dividend by its monthly stock price for the six-month period ending

14   December 2018.[291] Mr. Baudino notes that the average dividend yield for the proxy group

15   ranged from 3.23 percent to 3.30 percent during the six-month period.[292] For the expected

16   growth rate, Mr. Baudino relies on Earnings Per Share growth rate projections from Value

17   Line, Zacks, and First Call, as well as dividend per share ("DPS") growth rate projections

18   from Value Line.[293] Mr. Baudino then calculates DCF results based on the mean and

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289   *See* Chart 1.

290   Direct Testimony of Richard A. Baudino, at 30.

291   *Ibid.*, at 20.

292   *Ibid.*

293   *Ibid.* at 22.

121

1   median growth rate of the four sources noted above, producing eight ROE estimates,

2   ranging from 8.52 percent to 9.36 percent.[294]

3   Mr. Baudino refers to the DCF results produced using mean growth rates as

4   "Method 1", and DCF results produced using median growth rates as "Method 2". The

5   mean DCF results of his Methods 1 and 2 were 9.05 percent and 8.97 percent,

6   respectively.[295]

7

8   Q123. DO YOU AGREE WITH MR. BAUDINO THAT DIVIDEND GROWTH RATES ARE

9   APPROPRIATE MEASURES OF EXPECTED GROWTH FOR THE CONSTANT

10   GROWTH DCF MODEL?

11   A.   No, I do not. As discussed in my Revised Direct Testimony, academic literature supports

12   the use of earnings growth rates in the DCF model.[296] Earnings growth is the fundamental

13   driver of the ability to pay dividends. As noted in my Revised Direct Testimony, to reduce

14   growth to a single measure we assume a fixed payout ratio, and a constant growth rate for

15   earnings per share ("EPS"), DPS, and book value per share ("BVPS").[297] ENO Exhibit

16   RBH-34 illustrates that under the strict assumptions of the Constant Growth DCF model,

17   earnings, dividends, book value, and stock prices all grow at the same, constant rate in

18   perpetuity. Because earnings are the fundamental driver of dividends, and knowing

19   investors tend to value common equity on the basis of Price/Earnings ratios, the Cost of

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[294]   *Ibid.* at 23.

[295]   *Ibid.*

[296]   *See* Revised Direct Testimony of Robert B. Hevert, at 19–21.

[297]   *Ibid.,* at 18–19.

1   Equity is a function of the expected growth in earnings, not dividends. That is, earnings

2   growth enables both dividend and book value growth. Book value can increase over time

3   only through the addition of retained earnings, or with the issuance of new equity. Both of

4   those factors are derivative of earnings: retained earnings increases with the amount of

5   earnings not distributed as dividends; and the price at which new equity is issued is a

6   function of the EPS and the then-current P/E ratio.

7   In addition, Value Line is the only service on which Mr. Baudino relies that

8   provides DPS growth projections. To the extent that the earnings projections services such

9   as Zacks and First Call represent consensus estimates, the results are less likely to be

10   skewed in one direction or another as a result of an individual analyst.

11

12   **B.   DCF Model Assumptions**

13   Q124. PLEASE BRIEFLY DESCRIBE MR. BAUDINO'S CONCERNS WITH YOUR

14   ARGUMENTS REGARDING THE ASSUMPTIONS OF THE DCF MODEL.

15   A.   Mr. Baudino argues: (1) the industry's current payout ratio's departure from the long-term

16   average is not a valid concern; and (2) the industry's current P/E ratio's departure from its

17   long-term average is not a valid concern.[298]

18

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[298]   Direct Testimony of Richard A. Baudino, at 37.

1   Q125. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S CONCERN WITH YOUR

2   ASSUMPTION REGARDING PAYOUT RATIOS?

3   A.   As discussed in my responses to Mr. Walters (above), it is reasonable to assume, as Mr.

4   Baudino recognizes,[299] that near-term payout ratios will revert to the long-term industry

5   average over the horizon of the DCF analysis and that assumption is consistent with the

6   stated payout ratio targets of several electric utility companies.[300] In that regard, it is the

7   Constant Growth DCF model relied on by Mr. Baudino (which assumes that payout ratios

8   will remain unchanged in perpetuity) that is inconsistent with investor expectations.

9

10   Q126. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S CONCERN WITH YOUR

11   ASSUMPTION REGARDING P/E RATIOS?

12   A.   Mr. Baudino observes that current stock prices reflect investors' required ROE.[301]

13   However, as explained in my response to the Advisors' ROE Witnesses, the DCF model

14   will not produce accurate estimates of the market-required ROE if the market price

15   diverges from intrinsic value as defined by the present value formula.

16   The equity valuation levels recently observed more likely arose from the "reach for

17   yield" that sometimes occurs during periods of low Treasury yields. During those periods,

18   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.

1   source of income (that is, for the dividend yield).[302] Then, when interest rates increased,

2   investors rotated out of the utility sector, causing prices to fall. Because the Constant

3   Growth DCF model assumes a constant P/E ratio in perpetuity, in periods of elevated P/E

4   ratios, the Constant Growth DCF model understates the required return. As discussed in

5   my Revised Direct Testimony, interest rates are expected to increase.[303] Consequently, it

6   is unreasonable to place significant weight on the Constant Growth DCF model's results

7   when the assumptions underlying that model are plainly inconsistent with market

8   expectations.

9

10   **Q127. HAVE THERE BEEN RECENT PERIODS WHEN UTILITY VALUATION LEVELS**

11   **WERE HIGH RELATIVE TO BOTH THEIR LONG-TERM AVERAGE AND THE**

12   **MARKET?**

13   A.   Yes. For example, between July and December 2016, the S&P Electric Utility Index lost

14   approximately 9.00 percent of its value. At the same time, the S&P 500 increased by

15   approximately 7.00 percent, indicating that the utility sector under-performed the market

16   by about 16.00 percent. Also during that time, the 30-year Treasury yield increased by as

17   much as approximately 95 basis points (an increase of approximately 44.00 percent). More

18   recently, between January and March 2018, the S&P Electric Utility Index lost

19   approximately 7.00 percent of its value while the S&P 500 increased by approximately

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

[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.

1   2.00 percent, an under-performance of about 9.00 percent as the 30-year Treasury yield

2   increased by nearly 40 basis points. The point simply is that as interest rates increased,

3   utility valuations fell. As shown in Chart 24, below, since the Federal Reserve began

4   raising interest rates in 2015, utilities (as measured by the S&P 500 Utilities Index) have

5   underperformed the broad market by a substantial margin.

6   **Chart 24: S&P 500 Utilities vs S&P 500 Returns**[304]

7   **C.   Multi-Stage DCF Analysis**

8   Q128. DO YOU AGREE WITH MR. BAUDINO'S ASSERTION THAT YOUR LONG-TERM

9   GROWTH RATE ESTIMATE IS OVERSTATED?[305]

10   A.   No. For the reasons explained in my response to the Advisors' ROE Witnesses and Mr.

11   Walters, my long-term growth rate is reasonable and consistent with historical growth. The

12   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.

1   bounds of the long-term growth estimates Mr. Baudino uses in his Constant Growth DCF

2   analysis (mean rates ranging from 5.36 percent to 6.00 percent, and median rates ranging

3   from 5.17 percent to 6.00 percent).[306]

4

5   **D.   Capital Asset Pricing Model**

6   Q129. PLEASE SUMMARIZE MR. BAUDINO'S CAPM ANALYSES.

7   A.   Mr. Baudino performs two sets of CAPM analyses. His first set calculates two Market

8   Risk Premium measures, which rely on the forecasted total market return as determined

9   using Value Line projections, and six-month averages of five and 30-year Treasury security

10   yields (*i.e.*, 2.85 percent and 3.17 percent, respectively).[307] Mr. Baudino assumes a total

11   growth rate for the market of 10.25 percent, using the average of the book value and

12   earnings growth forecasts (8.50 percent and 12.00 percent, respectively) for all companies

13   covered by Value Line. Mr. Baudino combines that average growth rate with Value Line's

14   average expected dividend yield of 1.19 percent for the same group of companies, which

15   results in an estimated market return of 11.50 percent. Mr. Baudino then averages that

16   estimate with Value Line's projected annual total return of 16.00 percent to arrive at his

17   final expected market return of 13.75 percent.[308]

18   Mr. Baudino's two Market Risk Premium measures represent the difference

19   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).

[308]   Direct Testimony of Richard A. Baudino, at 26. Exhibit__(RAB-4).

1   past six months on five- and 30-year Treasury securities. Mr. Baudino arrives at his CAPM

2   results using the average Value Line Beta coefficient of 0.60 for his proxy companies.[309]

3   Mr. Baudino's second set of CAPM analyses calculate the geometric and arithmetic

4   mean long-term annual returns on stocks, and long-term annual income returns on long-

5   term government bonds, resulting in two historical measures of the Market Risk

6   Premium.[310] Mr. Baudino uses those two Market Risk Premium measures in combination

7   with the current five and 30-year Treasury bond yield and the average Value Line Beta

8   coefficient to calculate two additional CAPM results. Lastly, Mr. Baudino considers an

9   adjusted historical Market Risk Premium calculated by Dr. Roger Ibbotson and Dr. Peng

10   Chen, and reported by Duff & Phelps.[311]

11   Although Mr. Baudino advises the City Council to consider only his DCF results

12   in establishing the Company's ROE, he does report CAPM results ranging from 9.34

13   percent to 9.47 percent for his forward-looking return analysis and 6.26 percent to 7.39

14   percent for his historical returns analysis.[312]

15

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[309]   *Ibid.*, at 29. Exhibit__(RAB-4).

[310]   *Ibid.,* at 27-28. Exhibit__(RAB-4).

[311]   *Ibid.,* at 28. Exhibit__(RAB-4).

[312]   Direct Testimony of Richard A. Baudino*,* at 29.

1   Q130. DO YOU AGREE WITH MR. BAUDINO'S APPLICATION OF THE CAPM AND HIS

2   INTERPRETATION OF ITS RESULTS?

3   A.   No. There are two areas in which I disagree with Mr. Baudino: (1) the term of the Treasury

4   security used as the risk-free rate component of the model; and (2) the calculation of the

5   Market Risk Premium.

6

7   Q131. TURNING FIRST TO THE RISK-FREE RATE COMPONENT, WHY DO YOU

8   DISAGREE WITH MR. BAUDINO'S USE OF FIVE-YEAR TREASURY SECURITY

9   AS THE MEASURE OF THE RISK-FREE RATE?

10   A.   As a preliminary matter, I do not disagree with Mr. Baudino's use of the 30-year Treasury

11   bond as the risk-free rate.   As discussed in my response to Mr. Proctor, the tenor of the

12   risk-free rate used in the CAPM should match the life (or duration) of the underlying

13   investment. Like Mr. Watson's proxy group (*see* ENO Exhibit RBH-22), the average

14   Equity Duration of the companies in Mr. Baudino's proxy group is 32.36 years. Given that

15   relatively long Equity Duration, and knowing that utility assets are comparatively long-

16   lived, I continue to believe that it is appropriate to use the long-term (*i.e*., 30-year) Treasury

17   yield as the measure of the risk-free rate.

18

1   Q132. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S SUGGESTION THAT "THE

2   RISK-FREE RATE SHOULD HAVE NO INTEREST RATE RISK"?[313]

3   A.   I disagree. If Mr. Baudino is concerned with interest rate risk *per se*, he should focus

4   exclusively on short-term Treasury Bills as the risk-free security, even though they may be

5   less "stable" than longer-dated Treasury bonds.[314] Adopting such short-term securities, of

6   course, would further decrease his already-low CAPM estimates. In any case, the perpetual

7   nature of equity argues for the longest-term Treasury security, the 30-year Treasury Bond,

8   to measure the risk-free rate.

9   Q133. WHAT CONCERNS DO YOU HAVE WITH MR. BAUDINO'S *EX-ANTE* MARKET

10   RISK PREMIUM CALCULATIONS?

11   A.   Mr. Baudino calculates the expected market return using an average of earnings growth

12   projections (12.00 percent) and book value growth projections (8.50 percent). As noted

13   above, academic research indicates investors rely on estimates of earnings growth in

14   arriving at their investment decisions. In that regard, Mr. Baudino did not include book

15   value growth projections in his proxy group DCF analysis; he has not explained why it is

16   reasonable to include those growth rates in his Market Risk Premium analysis but exclude

17   them from his proxy company DCF analyses. Excluding book value growth estimates from

18   Mr. Baudino's market return calculation would increase his Market Risk Premium estimate

19   by approximately 84 basis points on average.

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[313]   *Ibid.,* at 43.

[314]   *Ibid.*

1   Q134. DO YOU AGREE WITH MR. BAUDINO'S USE OF HISTORICAL ESTIMATES OF

2   THE MARKET RISK PREMIUM?

3   A.   No, I do not. For the reasons discussed in my response to the Advisors' ROE Witnesses

4   and Mr. Walters, the Market Risk Premium is meant to be a forward-looking parameter. A

5   Market Risk Premium calculated using historical market returns does not necessarily

6   reflect investors' expectations or, for that matter, the relationship between market risk and

7   returns. The relevant analytical issue in applying the CAPM is to ensure that all three

8   components of the model (*i.e.*, the risk-free rate, Beta, and the Market Risk Premium) are

9   consistent with market conditions and investor expectations. Therefore, *ex-ante* CAPM

10   analyses are the more appropriate method to estimate ENO's Cost of Equity. Lastly, if Mr.

11   Baudino chooses to rely on historical data, he should consider the inverse relationship

12   between the Market Risk Premium and interest rates.

13

14   Q135. PLEASE BRIEFLY SUMMARIZE MR. BAUDINO'S COMMENTS REGARDING

15   YOUR *EX-ANTE* CAPM ANALYSES.

16   A.   Mr. Baudino disagrees with my *ex-ante* Market Risk Premium, arguing that the underlying

17   growth rates "are by no means long-run sustainable growth rates."[315] Mr. Baudino further

18   suggests the forecasted Treasury bond yields applied in my CAPM analyses are

19   "speculative at best and may never come to pass."[316]

20

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[315]   *Ibid.*, at 44.

[316]   *Ibid.,* at 42.

1   Q136. DO YOU AGREE WITH MR. BAUDINO'S CONCERNS IN THAT REGARD?

2   A.   No, I do not. As discussed in my response to Mr. Walters, my estimates of the Market Risk

3   Premium are consistent with historical experience. [317] Regarding the use of projected

4   interest rates, it is important to remember that, as Mr. Baudino states, the "[r]eturn on equity

5   analysis is a forward-looking process."[318] In that regard, I have considered forward-

6   looking estimates of the risk-free rate. Because my analyses are predicated on market

7   expectations, the expected increase in Treasury yields (as reflected in consensus

8   projections) is a measurable and relevant data point.

9

10   E.   Bond Yield Plus Risk Premium Approach

11   Q137. WHAT CONCERNS DOES MR. BAUDINO EXPRESS REGARDING YOUR BOND

12   YIELD PLUS RISK PREMIUM ANALYSIS?

13   A.   Mr. Baudino suggests the Bond Yield Plus Risk Premium method is "imprecise and can

14   only provide very general guidance," and notes that "[r]isk premiums can change

15   substantially over time."[319] In the end, Mr. Baudino likens the approach to a "blunt

16   instrument".[320] Regarding its application, Mr. Baudino disagrees with the use of projected

17   Treasury yields in calculating the range of Risk Premium-based results.

18

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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.*

1   Q138. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S OBSERVATIONS?

2   A.   Turning first to Mr. Baudino's point that the Risk Premium can change over time, I agree.

3   As noted in my Revised Direct Testimony, there is a statistically significant negative

4   relationship between long-term Treasury yields and the Equity Risk Premium.[321] Given

5   Mr. Baudino's observation that interest rates have declined since 2008, the Bond Yield

6   Plus Risk Premium analysis provides an empirically and theoretically sound method of

7   quantifying the relationship between the Cost of Equity and interest rates. That is, it

8   provides a method to quantify the change Mr. Baudino has observed.

9   As to Mr. Baudino's notion that the approach is a "blunt instrument," I disagree.

10   As shown in Chart 1 in my Revised Direct Testimony, the R-squared of the Bond Yield

11   Plus Risk Premium regression analysis is approximately 0.74, indicating a rather high

12   degree of explanatory value. More importantly (and as discussed in my response to Mr.

13   Walters), the relationship is highly statistically significant. Consequently, and as explained

14   in my response to the Advisors' ROE Witnesses, the Bond Yield Plus Risk Premium

15   approach provides empirically and theoretically sound results that can be used, at a

16   minimum, to assess the wide range of ROE results produced by Mr. Baudino's analyses in

17   general, and his 9.35 percent recommendation in particular.

18

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[321]   Revised Direct Testimony of Robert B. Hevert, at 35, 37.

1   Q139. DO YOU AGREE WITH MR. BAUDINO'S CLAIM THAT INCLUDING RATE CASE

2   RESULTS SINCE 1980 IS "AN IRRELEVANT EXERCISE"?[322]

3   A.   No, I do not. Simply, the model focuses on the relationship between interest rates and the

4   Equity Risk Premium; it does not view the two in isolation. There is no evidence that

5   excluding data from my analysis would improve the model's ability to estimate expected

6   returns.

7

8   **F.   Business Risks**

9   Q140. PLEASE BRIEFLY SUMMARIZE MR. BAUDINO'S POSITION REGARDING THE

10   COMPANY'S BUSINESS RISKS.

11   A.   Mr. Baudino argues that the business risks discussed in my Revised Direct Testimony are

12   covered in ENO's credit rating agency reports and that because S&P's credit rating

13   assigned to the Company is "consistent with the proxy group", he does not believe an

14   additional risk premium for the Company is appropriate.[323]

15

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

17   A.   As with the other intervening witnesses, Mr. Baudino's assertion that ENO's credit rating

18   is "consistent with" the proxy group fails to consider the Company's Moody's Ba1 rating.

19   None of the other proxy group companies have a below investment grade credit rating.

20   From that perspective alone, I disagree that the Company's risk (from the perspective of

---

[322]   Direct Testimony of Richard A. Baudino, at 38.

[323]   *Ibid.,* at 47.

1   the rating agencies) is similar to the proxy group. That point aside, as explained in my

2   response to the Advisors' ROE Witnesses, credit ratings speak to overall creditworthiness

3   from the perspective of debtholders, not equity holders.   We therefore cannot draw firm

4   inferences regarding differences in the Cost of Equity from differences in credit rating

5   notches.

6

7   Q142. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S ARGUMENT THAT THE SMALL

8   SIZE ANALYSIS DOES NOT APPLY TO ENO BECAUSE THE ANALYSIS

9   CONTAINS UNREGULATED COMPANIES?

10   A.   As noted in my Revised Direct Testimony, although studies of the size effect often include

11   unregulated industries, analysts have also noted utilities face risks associated with small

12   size as well (such as concentrated customer base, limited financial resources, and lack of

13   geographic diversity).[324] In addition to the studies cited in my Revised Direct Testimony,

14   Dr. Morin discusses the small size effect Ibbotson Associates found for utility companies

15   in particular:

16   To illustrate, the Ibbotson data suggests that under SIC Code 49,
17   *Electric, Gas & Sanitary Services*, the average return for that group over
18   an almost 80-year period was 14.03% for the small-cap company group
19   and 10.86% for the large-cap group, more than a 300 basis point
20   difference. This is true for all industry groups.[325]

21   Regardless, as discussed in my response to the Advisors' ROE Witnesses, I have

22   not made a specific size adjustment to my recommended ROE.   Rather, I take into

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[324]   *See* Revised Direct Testimony of Robert B. Hevert, at 52.

[325]   *See* Morin, Roger A., <u>New Regulatory Finance</u>, Public Utilities Report, Inc., 2006, at 182.

1   consideration the additional risk implied by ENO's small size relative to the proxy group

2   when determining where within the range of ROE model results the appropriate ROE

3   should be.

4

5   Q143. WHAT IS YOUR RESPONSE TO MR. BAUDINO'S ARGUMENT THAT THE

6   COMPANY'S FORMULA RATE PLAN REDUCES ENO'S RISK?[326]

7   A.   For the reasons explained in my response to Mr. Proctor, I disagree. As Mr. Baudino

8   suggests, rate structures such as the Formula Rate Plan are more likely to be credit

9   supportive, rather than credit enhancing.[327]

10

11   Q144. MR. BAUDINO SUGGESTS FLOTATION COSTS "LIKELY" ARE ACCOUNTED

12   FOR IN CURRENT STOCK PRICES.[328] IS HE CORRECT?

13   A.   No, he is not. As explained in my Revised Direct Testimony, the models used to estimate

14   the appropriate ROE assume no "friction" or transaction costs, as these costs are not

15   reflected in the market price (in the case of the DCF model) or risk premium (in the case

16   of the CAPM and the Bond Yield Plus Risk Premium model).[329]

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[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.

1   **G.   Capital Market Environment**

2   Q145. PLEASE BRIEFLY DESCRIBE MR. BAUDINO'S DISCUSSION OF CAPITAL

3   MARKETS.

4   A.   Mr. Baudino acknowledges that interest rates increased in the second half of 2016 and will

5   likely continue raising rates into 2019.[330] However, Mr. Baudino "firmly believe[s] that it

6   would not be advisable for utility regulators to raise ROEs in anticipation of higher

7   forecasted interest rates that may or may not occur."[331] As discussed in my Revised Direct

8   Testimony, and earlier in my response to Mr. Baudino, investors expect interest rates to

9   rise in the short- and medium-term. Because we are focused on understanding required

10   returns from investors' perspectives, we should reflect data that is important to them. Mr.

11   Baudino has provided no evidence that projected interest rates are of no consequence to

12   investors.

13

14   Q146. MR. BAUDINO ALSO ARGUES THAT "EXPECTATIONS OF HIGHER FUTURE

15   INTEREST RATES, IF ANY, ARE ALREADY LIKELY EMBODIED IN CURRENT

16   SECURITIES PRICES, WHICH INCLUDE DEBT SECURITIES AND STOCK

17   PRICES."[332] DO YOU AGREE WITH MR. BAUDINO'S ARGUMENT?

18   A.   Mr. Baudino makes that argument in the context of "market efficiency", suggesting that if

19   markets are efficient, expectations regarding the direction and level of interest rates already

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[330]   Direct Testimony of Richard A. Baudino, at 9–11.

[331]   *Ibid.*, at 10.

[332]   *Ibid*., at 9.

1   are embedded in stock prices and Treasury yields. Mr. Baudino points to Dr. Morin's 2006

2   reference to the forecast accuracy of naïve extrapolations and "no-change" methods of

3   projecting interest rates in support of his position that there is no need to consider projected

4   interest rates in setting the current ROE.[333]   I have several responses to Mr. Baudino on

5   those points.

6   Regarding the suggestion that the "no-change" method of projecting interest rates

7   is appropriate in the current market, I do not believe that to be the case. As discussed in

8   my response to Mr. Walters, the Federal Reserve's Quantitative Easing program, which

9   was initiated after 2006 (that is, after Dr. Morin's book was published), was designed to

10   put downward pressure on long-term interest rates. Consequently, the observed Treasury

11   yield in a given month likely would over-forecast the observed Treasury yield twelve

12   months in the future.[334] Conversely, when the Federal Reserve completed its Quantitative

13   Easing program, it would be reasonable to assume the observed Treasury yield would

14   under-forecast the yield twelve months in the future (as yields increase). That would be

15   the case even though the Federal Reserve has not yet unwound the $4 trillion of assets it

16   acquired during Quantitative Easing. As Chart 23 above demonstrates, that is clearly the

17   case.

18   Mr. Baudino's data support that position. As shown in Table 8, from February

19   2007 through the end of Quantitative Easing (October 2015),[335] the 30-year Treasury yield

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[333]   *Ibid*.

[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.

1   over-forecast the twelve-month forward yield 71.00 percent of the time. After October

2   2015, current yields over-forecast future yields only 29.00 percent of the time; from 2017

3   through December 2018, in only three of 24 months (about 13.00 percent of the time). That

4   is, from 2017 through the end of 2018, the "no-change" approach under-forecast Treasury

5   yields in 21 of 24 months.

6   **Table 8: "No-Change" Forecast Error Observations[336]**

	Feb. 2007 – Oct. 2015	Nov. 2015 – Dec. 2018	Jan. 2017 – Dec. 2018
Number of Observations			
Over-Forecast	75	11	3
Under-Forecast	30	27	21
Total	105	38	24
% Over-Forecast	71.00%	29.00%	13.00%
% Under-Forecast	29.00%	71.00%	87.00%

7   If Mr. Baudino wishes to consider current Treasury yields as measures of future

8   rates, we can view the market's expectations based on the current yield curve. Those

9   expected rates, often referred to as "forward yields" are derived from the "Expectations"

10   theory, which states that (for example) the current 30-year Treasury yield equals the

11   combination of the current five-year Treasury yield, and the 25-year Treasury yield

12   expected in five years. That is, an investor would be indifferent to (1) holding a 30-year

13   Treasury bond to maturity, or (2) holding a five-year Treasury note to maturity, then a 25-

14   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

1   the forward and current (interpolated) 25-year Treasury yield. If the forward 25-year

2   Treasury yield exceeds the current 25-year yield, that relationship indicates expectations

3   of future rate increases.

4   Based on the data Mr. Baudino's Exhibit__(RAB-4), page 2, forward yields

5   consistently exceeded current spot yields throughout 2018 (*see* Table 9, below). That is,

6   just as economists' projections called for increased interest rates, so have forward Treasury

7   yields.

8   **Table 9: Forward vs. Interpolated 25-Year Treasury Yields[338]**

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

9   Importantly, forward yields assume the current slope of the yield curve will remain

10   constant going forward. They therefore assume the conditions supporting the current slope

11   also will remain constant.   As discussed earlier, however, Federal monetary policy

12   continues to evolve as short-term yields are increased, and the Federal Reserve's balance

13   sheet is unwound. Consequently, the current yield curve may not fully reflect market

14   expectations. Nonetheless, implied forward yields certainly are known and considered by

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

[338]   Source: Exhibit__(RAB-4), page 2 of 2.

1   the professionals that contribute to the consensus long-term bond yield projections

2   published by sources such as *Blue Chip Financial Forecasts*. In that case, forward yields

3   would be reflected in economists' projections.

4

5 Q147. MR. BAUDINO ALSO POINTS TO INCREASES IN THE DOW JONES UTILITY

6   AVERAGE, AND THE DECREASE IN UTILITY DEBT YIELDS AS SUPPORT FOR

7   HIS 9.35 PERCENT ROE RECOMMENDATION.[339] WHAT IS YOUR RESPONSE TO

8   MR. BAUDINO ON THOSE POINTS?

9 A.   Regarding performance of the Dow Jones Utility Average ("DJU"), an important

10   perspective is its performance relative to the overall market. As Chart 25 (below)

11   demonstrates, from January 2016 through December 2018 (the period included in Mr.

12   Baudino's Table 1), the DJU significantly underperformed the overall market as measured

13   by the Dow Jones Industrial Average ("DJI"). Notably, much of that underperformance

14   occurred between November 2017 and March 2018, about the time the TCJA was enacted,

15   and during which the major rating agencies noted its implications for utilities. As discussed

16   in my Revised Direct Testimony (and in my response to the Advisors' ROE Witnesses), a

17   reasonable inference drawn from that data is that investors began to re-evaluate utilities

18   relative to other sectors.[340] That inference, and the related conclusion that required returns

19   for utilities has increased, is supported by Mr. Baudino's data.

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[339]   Direct Testimony of Richard A. Baudino, at 10–11.

[340]   Direct Testimony of Robert B. Hevert, at 59.

1   **Chart 25: Relative Price Performance[341]**
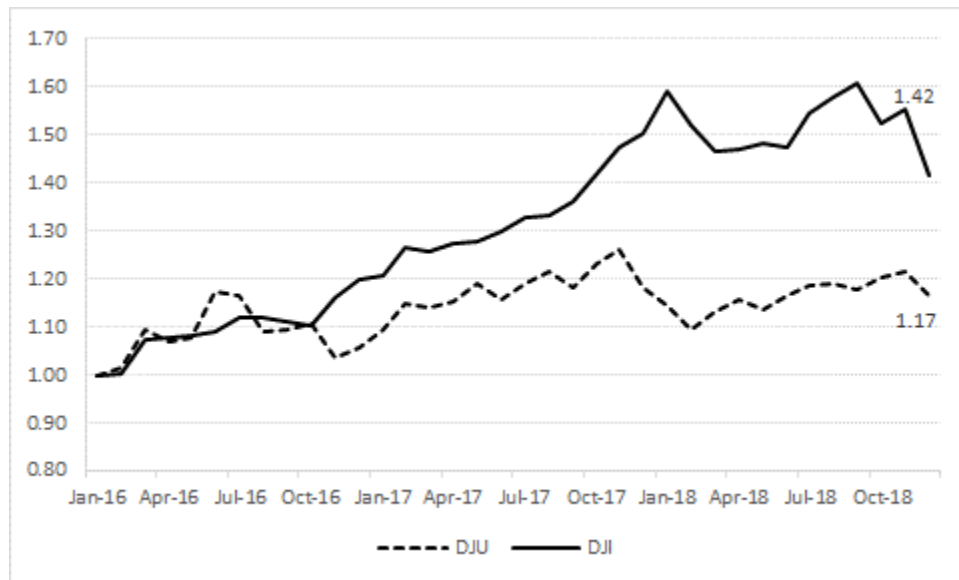
2   Regarding Mr. Baudino's observation that utility bond yields were lower in

3   December 2018 than January 2016, there are several points to consider. First, over time

4   credit spreads tend to be inversely related to Treasury yields. Data from Mr. Baudino's

5   Table 1 display that relationship; credit spreads were negatively and significantly related

6   to Treasury yields (*see* Table 10, below).

7   **Table 10: Regression Statistics[342]**

R Squared	21.43%	
F Stat	9.271	T Stat
Intercept	2.241	7.249
Treasury Yield	-0.327	-3.045

8   In 2016, the average Treasury yield and credit spreads were 2.60 percent and 1.51

9   percent, respectively. By 2018, the average Treasury yield increased to 3.11 percent, and

10   the credit spread fell to 1.23 percent, from a low of 1.02 percent (February) to a high of

---

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

342   *Ibid*.

1   1.41 percent (December). Simply based on the movement of Treasury yields and credit

2   spreads since 2016, there is no reason to conclude utility bond yields indicate a lower Cost

3   of Equity, as Mr. Baudino suggests. If anything, we may conclude that because both

4   Treasury yields and credit spreads increased during 2018, investors' perceptions of utility

5   risk also have increased.

6

7   **VI. SUMMARY OF UPDATED RESULTS**

8   Q148. PLEASE SUMMARIZE YOUR UPDATED ROE ANALYSES AND RESULTS.

9   A.   I have updated many of the analyses contained in my Revised Direct Testimony, including

10   the Constant Growth and Multi-Stage DCF analyses, the CAPM, and the Bond Yield Plus

11   Risk Premium approach with data as of February 28, 2019. As noted in my response to

12   the Advisors' ROE Witnesses, I have also included an Expected Earnings analysis. Lastly,

13   I have updated my proxy group based on recent data.[343] My updated analytical results

14   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.

1

Table 11: Summary of Updated Analytical Results

Discounted Cash Flow	Mean Low	Mean	Mean High
30-Day Constant Growth DCF	8.34%	9.24%	10.23%
90-Day Constant Growth DCF	8.40%	9.31%	10.30%
180-Day Constant Growth DCF	8.48%	9.39%	10.38%
MSDCF-Gordon Method			
30-Day Multi-Stage DCF	8.64%	8.87%	9.13%
90-Day Multi-Stage DCF	8.71%	8.94%	9.20%
180-Day Multi-Stage DCF	8.79%	9.02%	9.30%
MSDCF-Terminal P/E			
30-Day Multi-Stage DCF	8.35%	8.96%	9.64%
90-Day Multi-Stage DCF	8.52%	9.13%	9.81%
180-Day Multi-Stage DCF	8.74%	9.36%	10.04%
CAPM Results		*Bloomberg Derived Market Risk Premium*	*Value Line Derived Market Risk Premium*
Average Bloomberg Beta Coefficient			
Current 30-Year Treasury (3.04%)		8.25%	9.78%
Near-Term Projected 30-Year Treasury (3.25%)		8.47%	10.00%
Average Value Line Beta Coefficient			
Current 30-Year Treasury (3.04%)		9.29%	11.12%
Near-Term Projected 30-Year Treasury (3.25%)		9.50%	11.34%
		Average	**Median**
Expected Earnings		10.34%	10.52%
Bond Yield Risk Premium			
	Low	*Mid*	*High*
Bond Yield Risk Premium	9.93%	9.96%	10.17%

2 **VII. CONCLUSION**

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

4 A. Based on the analyses discussed throughout my Rebuttal Testimony, and the results

5 summarized in Table 11, I conclude the reasonable range of ROE estimates is from 10.25

6 percent to 11.25 percent and within that range, 10.75 percent is a reasonable and

7 appropriate estimate of the Company's Cost of Equity.

1

2   Q150. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

3   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

Entergy

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