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

# REBUTTAL TESTIMONY

OF

ROBERT B. HEVERT

FOR

EL PASO ELECTRIC COMPANY

JULY 2017

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## EXHIBITS

## I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS ADDRESS.

A. My name is Robert B. Hevert. I am employed by ScottMadden, Inc. ("ScottMadden"), as Partner, and my business address is ScottMadden, Inc., 1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581.

Q. ARE YOU THE SAME ROBERT B. HEVERT WHO SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. I am also providing this rebuttal testimony on behalf of El Paso Electric Company ("EPE" or the "Company").

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of the following Intervenor and Public Utility Commission of Texas Staff ("Staff") witnesses with respect to the Return on Equity ("ROE"):

- Mr. Mark Filarowicz, who testifies on behalf of the Staff;
- Ms. Anjuli Winker, who testifies on behalf of the Office of Public Utility Counsel ("OPUC");
- Mr. Michael P. Gorman, who testifies on behalf of Texas Industrial Energy Consumers ("TIEC");
- Mr. Daniel J. Lawton, on behalf of the City of El Paso ("City"); and
- Mr. Steve W. Chriss, who testifies on behalf of Wal-Mart Stores Texas, LLC, and Sam's East, Inc. ("Wal-Mart").

I refer to these witnesses collectively as the "Opposing ROE Witnesses" as their testimony relates to the Company's ROE and capital structure. My Rebuttal Testimony also updates many of the analyses contained in my Direct Testimony, and provides

several additional analyses developed in response to Mr. Filarowicz, Ms. Winker, Mr. Gorman, and Mr. Chriss.[1]

Q. WERE YOUR REBUTTAL TESTIMONY AND EXHIBITS PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION AND CONTROL?

A. Yes.

## II. SUMMARY OF KEY CONCLUSIONS

Q. PLEASE PROVIDE A SUMMARY OVERVIEW OF THE RECOMMENDATIONS CONTAINED IN YOUR REBUTTAL TESTIMONY.

A. First, none of the analyses provided or positions taken by the Opposing ROE Witnesses have caused me to revise my ROE range and recommendation. For example, to support their positions, certain of the Opposing ROE Witnesses assert that authorized returns have trended downward; however, their use of average annual data obscures the variation in returns, and suggests a downward trend where none exists. As I discussed in my Direct Testimony, and demonstrate later in my Rebuttal Testimony, if all authorized ROEs are considered (rather than annual averages), there is no downward trend. Other analyses presented by the Opposing ROE Witnesses are similarly flawed. After reviewing their analyses, and in light of the updated and additional analyses provided in my Rebuttal Testimony, I have maintained my position that a reasonable range of ROE estimates is from 10.00 percent to 10.75 percent, and within that range, 10.50 percent is a reasonable, if not conservative estimate of the Company's Cost of Equity.

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1 I note that Mr. David Nemir, who filed testimony in this proceeding on behalf of Mr. Vincent Perez, commented on my proxy group. However, since he does not comment or provide analysis on the appropriate ROE, I do not respond to his comment here.

As my Direct Testimony discussed, my ROE recommendation and the analytical results on which it is based, consider a variety of factors, including capital market conditions in general and certain risks faced by the Company. Because the application of financial models and the interpretation of their results often are sources of disagreement among analysts in regulatory proceedings, I believe it is important to review and consider a variety of data points; doing so enables us to put in context both quantitative analyses and the associated recommendations. As such, I have updated many of the analyses contained in my Direct Testimony, and have provided several new analyses in response to issues raised by the Opposing ROE Witnesses.

Although the ranges of results for certain models have changed since I filed my Direct Testimony (*see* Tables 12a and 12b below), the capital markets recently have evolved, with rising interest rates suggesting increasing capital costs. On balance, I believe the Company's Cost of Equity remains in the range of 10.00 percent to 10.75 percent and as such, I continue to believe that 10.50 percent is a reasonable estimate of the Company's Cost of Equity. As to the Company's capital structure, I continue to support the Company's requested capital ratios of 48.348 percent common equity and 51.652 percent long-term debt.

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

A. It is important to keep in mind that no one financial model is more reliable than others at all times and under all market conditions; at times, certain model results cannot reasonably be reconciled with observable measures of investors' return expectations and requirements. Determining the Cost of Equity therefore is not always a strict mathematical exercise. Rather, it requires reasoned judgment in vetting the models and assumptions used by various analysts, and in assessing the reasonableness of their

recommendations. That judgment may lead to the conclusion that the emphasis applied to a particular method in a prior proceeding or under prior market conditions is not appropriate in the current instance.

In this proceeding the Opposing ROE Witnesses have given considerable weight to the Discounted Cash Flow ("DCF") method, even though their models produce ROE estimates that are 100 basis points and more below the returns authorized for other electric utilities. For example, Ms. Winker's 9.10 percent ROE recommendation is based on her Constant Growth DCF and Risk Premium results.[2] Mr. Filarowicz considers Constant Growth DCF model results ranging from 6.15 percent to 11.33 percent.[3] Likewise, Mr. Gorman and Mr. Lawton each give considerable weight to their Constant Growth DCF model results.[4] Putting aside the methodological flaws in their DCF analyses, the Opposing ROE Witnesses' dependence on that model is a case-in-point as to why it is important to consider multiple methods and to assess the reliability of individual model results in the context of current market conditions when estimating the Cost of Equity.

**Table 1: Summary of ROE Recommendations**

| WITNESS | ROE RANGE | | ROE RECOMMENDATION |
|---|---|---|---|
| | LOW | HIGH | |
| Mr. Filarowicz (Staff) | 8.47% | 9.64% | 9.30% |
| Ms. Winker (OPUC) | - | - | 9.10% |
| Mr. Gorman (TIEC) | 8.90% | 9.40% | 9.15% |
| Mr. Lawton (City) | - | - | 9.00% |
| | | | |
| Mr. Hevert (EPE) | 10.00% | 10.75% | 10.50% |

2 Winker Direct, at 31.
3 *See* Filarowicz Direct, at 26.
4 *See* Gorman Direct, at 54; Lawton Direct, at 10.

Given their common dependence on a method that produces unduly low estimates, it is not surprising that the Opposing ROE Witnesses' recommendations fall within a narrow range, or that they fall far below the range of returns authorized for electric utilities in other jurisdictions. Other regulatory authorities have been reluctant to give undue weight to models and methods that produce unreasonably low results. The highest of the Opposing ROE Witnesses' recommendations (Mr. Filarowicz's 9.30 percent ROE) is 49 basis points below the average return, and falls in the bottom 1st percentile of ROEs authorized for vertically integrated electric utilities from January 2014 through June 2017[5] (*see* Chart 1, below).

Although Mr. Gorman asserts that "[a]uthorized returns on equity have fallen to the mid 9.0% range",[6] the majority have been in the upper 9.00 percent range to above 10.00 percent (*see* Chart 1, below). Therefore, the my recommended range is consistent with recently authorized ROEs.[7]

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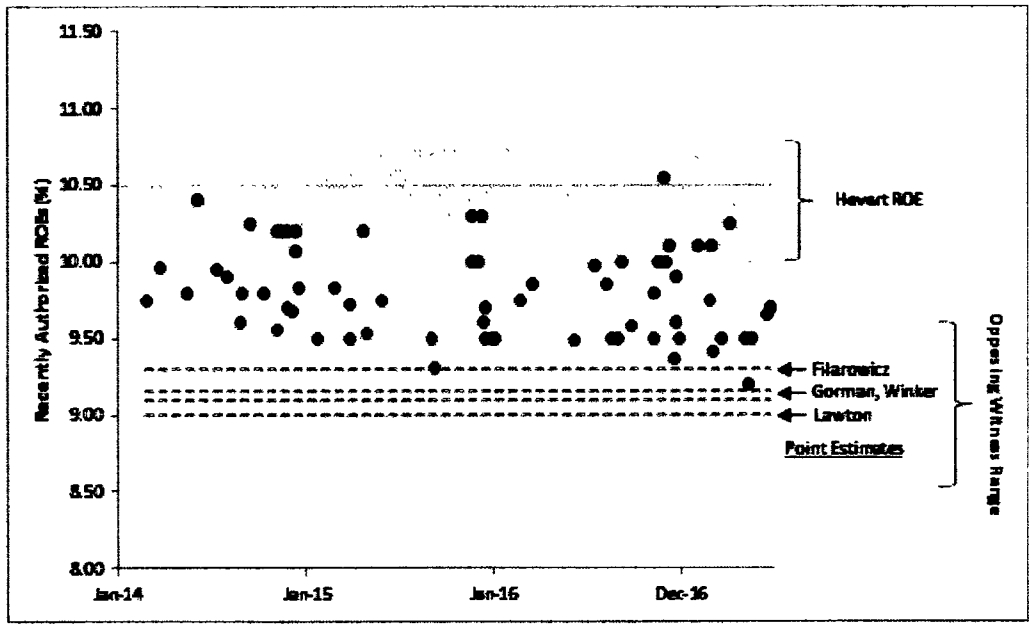
5 The average authorized ROE for vertically integrated electric utilities (excluding limited issue riders) from January 2014 to June 2017 is 9.79 percent. *See* Exhibit RBH-7R.
6 Gorman Direct, at 14.
7 There have been eight cases since September 1, 2016 in which the authorized ROE was 10.00 percent or greater. *See* Exhibit RBH-7R.

**Chart 1: Authorized ROEs (2014 – 2017) and Witness Recommendations**[8]




The fact that the Opposing ROE Witnesses' recommendations are similar does not demonstrate that their approaches or their conclusions are sound. Rather, because those recommendations are so far removed from the returns available to other utilities, they are inherently unreliable and should be given no weight by the Commission. For the reasons discussed throughout the balance of my rebuttal testimony, the Opposing ROE Witnesses' ROE estimates cannot be supported by the reasonable application of financial models, nor can they be justified by current or expected market conditions. Rather, their unduly low recommendations would only serve to increase the Company's regulatory and financial risk, diminish its ability to compete for capital, and have the counter-productive effect of increasing its overall cost of capital, ultimately to the detriment of customers.

8 Regulatory Research Associates ("RRA"). Authorized ROEs for vertically integrated electric utilities from January 2014 through June 2017. ROEs authorized for limited issue rate riders are excluded.

Q. PLEASE SUMMARIZE YOUR RESPONSE TO THE OPPOSING ROE WITNESSES.

A. Although there are many areas in which I disagree with their methods and conclusions, there are certain issues that commonly serve to reduce the Opposing ROE Witnesses' recommendations:

- *Application of DCF methods.* As a general matter, DCF-based methods define the Cost of Equity as the discount rate that sets the current market price of a stock equal to the present value of the cash flows[9] expected from owning that stock. In calculating expected cash flows, the Opposing ROE Witnesses rely on growth rates that are inappropriately low, or are constrained by their view as to what may or may not be a "sustainable" level. Regardless of how they develop their models, DCF estimates of 8.00 percent and lower fail to meet the *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) and *Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia*, 262 U.S. 679 (1923) "end result" standard, and should be given no weight in determining the Company's ROE.[10]
- *Application of Risk Premium Models.* Risk Premium methods are based on the fundamental financial principle that equity investors assume greater risk than do debt investors and, therefore, require higher returns. The measure of that incremental return is the "Equity Risk Premium," or the difference between the required return on debt and the required ROE. In applying that method, it is important to recognize that the Equity Risk Premium is not constant over time. Rather, as interest rates fall, the Equity Risk Premium increases. By not properly reflecting that well-documented relationship, certain of the Opposing ROE Witnesses have under-estimated the Company's Cost of Equity.

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9 Cash flows include both dividends received and the price at which the stock eventually is sold.
10 For example, Mr. Filarowicz relies on DCF results as low as 6.15 percent. *See* Filarowicz Direct, at 26.

- *Application of the Capital Asset Pricing Model* ("CAPM"). The CAPM, which also is a risk premium-based method, assumes that investors must be compensated for the time value of money and for taking on additional risk. The time value of money is measured by long-term Treasury yields; compensation for additional risk is measured by the stock's Beta coefficient and the expected Market Risk Premium ("MRP"). The MRP, which weighs heavily in CAPM estimates, reflects the additional return that investors expect to receive by investing in the market as a whole over the return they would receive by investing only in long-term Treasury bonds. Certain of the Opposing ROE Witnesses have developed MRP estimates based on historical market returns and interest rates, and they have assumed relationships among those two variables that do not reasonably reflect current or expected market conditions. As a result, their MRP estimates and, therefore, their ROE estimates are unreasonably low.

I address other issues relating to specific witnesses in more detail later in my rebuttal testimony. For example, Mr. Gorman suggests market illiquidity has essentially no cost. That position not only is unsupported in theory, it is contradicted by his own data. Those and other issues are discussed throughout the balance of my rebuttal testimony.

Q. PLEASE NOW SUMMARIZE THE UPDATED ANALYSES CONTAINED IN YOUR REBUTTAL TESTIMONY.

A. I have updated the Constant Growth and Multi-Stage forms of the DCF model, CAPM, and Bond Yield Risk Premium analyses based on data through June 30, 2017, and applied those analyses to my updated proxy group, consisting of the proxy group contained in my Direct Testimony, and including Dominion Resources, Inc., Hawaiian Electric Industries, Inc., and Southern Company. These companies were excluded from

the proxy group in my direct testimony due to recent mergers or significant transactions. Because enough time has passed to ensure the analytical results are not affected by those acquisitions, I have included those companies in my updated proxy group.

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

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

- Section III – responds to the Opposing ROE Witnesses' assertion that authorized ROEs have trended downward;
- Section IV – provides my response to Staff witness Mr. Filarowicz;
- Section V – responds to OPUC witness Ms. Winker;
- Section VI – responds to TIEC witness Mr. Gorman;
- Section VII – responds to City witness Mr. Lawton;
- Section VIII – responds to Wal-Mart witness Mr. Chriss; and
- Section IX – summarizes my conclusions and updated results.

## III. TREND OF AUTHORIZED RETURNS

Q. PLEASE SUMMARIZE THE OPPOSING ROE WITNESSES' ARGUMENTS REGARDING THE RECENT TREND OF AUTHORIZED RETURNS.

A. The Opposing ROE Witnesses argue that authorized returns have fallen in recent years. Mr. Gorman states "[a]uthorized returns on equity for both electric and gas utilities have been steadily declining over the last 10 years".[11] Similarly, Mr. Lawton states "[a]verage authorized equity returns for electric utilities have trended downward with other declining

11 Gorman Direct, at 8.

capital costs".[12] Mr. Chriss argues, "[w]hen the average ROE is broken down by year, the data shows that recently awarded ROEs are lower than those awarded in 2014."[13]

Q. DO YOU AGREE WITH THE OPPOSING WITNESSES' ASSESSEMENTS OF RECENT TRENDS OF AUTHORIZED RETURNS?

A. No, I do not. As explained in more detail below, the Opposing ROE Witnesses' use of average annual data obscures the variation in returns, and suggests a downward trend where none exists. Reviewing simple annual averages does not address the number of cases, the type of cases, or the number of jurisdictions issuing orders within a given year. For example, one year may have fewer cases decided, but a relatively large number of those cases decided by a single jurisdiction, potentially biasing the result. To that point, the Opposing ROE Witnesses have cited to averages that remove higher authorized returns for Virginia Rate Riders, but include lower authorized returns from Illinois Formula Rate plans,[14] thereby biasing their conclusion downward. If all authorized ROEs for electric utilities (rather than simple averages) are charted, there is no discernable trend (see Chart 2 below).

Q. MR. GORMAN, MR. LAWTON, AND MR. CHRISS POINT TO AUTHORIZED RETURNS REPORTED BY REGULATORY RESEARCH ASSOCIATES ("RRA") AS ADDITIONAL SUPPORT FOR THEIR RECOMMENDATIONS. DO YOU HAVE ANY OBSERVATIONS REGARDING THEIR PRESENTATIONS OF THAT DATA, AND THE CONCLUSIONS THEY DRAW FROM IT?

12 Lawton Direct, at 15-16. *See also* Schedule DJL-10.
13 Chriss Direct, at 8.
14 *See, e.g.*, Gorman Direct, at 9, Figure 1.

A. Yes, I do. Mr. Gorman cites to average ROE statistics reported by RRA that remove Limited Issue Riders.[15] If Mr. Gorman chooses to remove the Virginia Riders because those cases are dissimilar to returns authorized for other electric utilities, he also should remove the returns authorized under Illinois' formula rate approach. Putting aside the fact that those returns relate to distribution-only operations, they are formulaic and quite dissimilar to the returns available to other vertically integrated electric utilities. In any event, by aggregating returns to annual averages, Mr. Gorman concludes there is a recent downward trend in returns, even though individual observations (that is, not aggregated to annual averages) suggests otherwise.

Q. WHY DO YOU SAY THERE IS NO DOWNWARD TREND IN RETURNS WHEN THE ANNUAL AVERAGE FELL FROM 2014 TO 2016?

A. I do so for two reasons. First, the average does not address the number of cases, or the number of jurisdictions issuing orders within a given year. For example, one year may have fewer cases decided, but a relatively large number of those cases decided by a single jurisdiction, potentially biasing the result. On a related point, the average does not reflect the dispersion in returns authorized within a given year. By way of example, the adjusted average authorized return in 2014 was 9.78 percent, with a standard deviation of about 0.30 percent (30 basis points). In 2016 the average and standard deviation were 9.66 percent and 0.35 percent, respectively (see Table 2, below). We therefore cannot say with any certainty that there is a statistical difference between the two years.

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15 Gorman Direct, at 8-9.

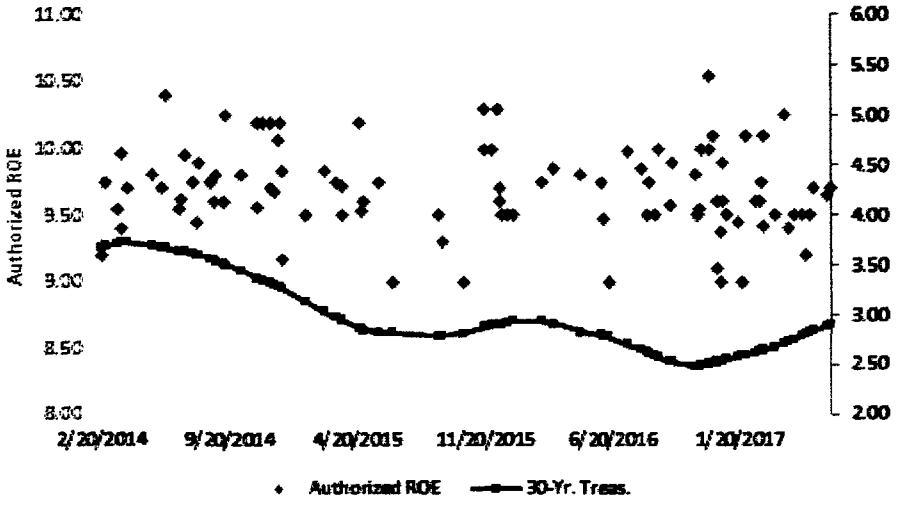
**Table 2: Average and Standard Deviation of Authorized Returns[16]**

| Year | Average ROE | Standard Deviation (ROE) |
|---|---|---|
| 2014 | 9.78 | 0.3007 |
| 2015 | 9.64 | 0.3762 |
| 2016 | 9.66 | 0.3512 |

Q. HAVE YOU CONSIDERED WHETHER THERE HAS BEEN A TREND IN AUTHORIZED RETURNS SINCE 2014?

A. Yes, I have. Rather than calculate annual averages, I gathered data for each case, and plotted the authorized return over time. As Chart 2 (below) demonstrates, there is no trend; time explains less than 2.00 percent of the variation in returns. That finding supports the conclusion noted earlier, that because the dispersion of returns in a given year changes, annual averages are of little value in assessing trends.

**Chart 2: Authorized Returns (2014 – 2017)[17]**




16 Regulatory Research Associates.
17 Excludes Limited Issue Rate Riders and Illinois formula rate proceedings. Source: Regulatory Research Associates.

It also is important to note there was no trend in returns even though the average 30-year Treasury yield somewhat declined. That finding is important in two respects. First, regulatory commissions have not been inclined to reduce authorized returns as yields fell. Second, the finding that ROEs did not fall as interest rates fell is consistent with the widely-accepted principle that the Equity Risk Premium increases as interest rates fall. That point, which is discussed in more detail later in my Rebuttal Testimony, is an important consideration that certain of the Opposing ROE Witnesses do not reasonably reflect in their analyses or recommendations.

Q. DO YOU HAVE ANY OTHER OBSERVATIONS REGARDING THE OPPOSING ROE WITNESSES' REFERENCE TO AUTHORIZED RETURNS?

A. Yes. Although the Opposing ROE Witnesses argue authorized returns support their ROE recommendations, their recommendations fall in the bottom 15th percentile, or lower, of the returns authorized for electric utilities from 2014 through June 2017.[18] That is, even excluding the limited issue rate riders (but including the Illinois formula rate ROEs), 85.00 percent of the observed returns are higher than the Opposing ROE Witnesses' recommendation. The Opposing ROE Witnesses do not explain, however, why the Company is so less risky than its peers that investors would be willing to accept such a low return.

## IV. RESPONSE TO STAFF WITNESS FILAROWICZ

Q. PLEASE SUMMARIZE STAFF'S ROE RECOMMENDATION.

18 Mr. Filarowicz 9.30 percent ROE recommendation falls in the bottom 16th percentile; Mr. Gorman's 9.15 percent ROE recommendation falls in the bottom 11th percentile; Ms. Winker's 9.10 percent ROE recommendation falls in the bottom 9th percentile; and Mr. Lawton's 9.00 percent falls in the bottom 2nd percentile. As noted earlier, compared to only Vertically Integrated cases, the Opposing ROE Witnesses' recommendations are in the bottom 2nd percentile, or below.

A. Mr. Filarowicz recommends an ROE range of 8.47 percent to 9.64 percent, with a point estimate of 9.30 percent.[19] The low end of Mr. Filarowicz's range (8.47 percent) is equal to the average of his Constant Growth and Multi-Stage DCF results, whereas the high end is determined by his Risk Premium analysis.[20] Although he performs a CAPM analysis, which produces an ROE estimate of 6.91 percent, Mr. Filarowicz gives that result no weight.[21]

Q. PLEASE BRIEFLY SUMMARIZE YOUR RESPONSE TO MR. FILAROWICZ ON THOSE ISSUES.

A. Putting aside the analytical issues discussed in more detail below, I strongly disagree that estimates of 9.00 percent and lower should be given any weight in determining the Company's ROE. As a point of reference, the average authorized return for vertically-integrated electric utilities since 2014 has been 9.79 percent;[22] the low end of Mr. Filarowicz's range is based on estimates at least 132 basis points below that level.

Regarding his Risk Premium analysis, I agree with Mr. Filarowicz that the fundamental relationship between the Equity Risk Premium and interest rates is such that as interest rates fall, the Equity Risk Premium increases.[23] However, he applies historical Bond yields rather than forward-looking projected yields I apply in my model. Consequently, Mr. Filarowicz's Risk Premium-based ROE estimate is lower than it reasonably should be.

Because Mr. Filarowicz's ROE range and point estimate depend on his DCF and Risk Premium models, the factors summarized above tend to skew his results and

19 Filarowicz Direct, at 7.
20 *Ibid.* at 26.
21 Filarowicz Direct, at 23, 26. Since Mr. Filarowicz did not rely on the results of his CAPM analysis, I do not address the application of that model.
22 Source: RRA. Excluding Limited Issue Riders. *See* Exhibit RBH-7R.
23 Filarowicz Direct, at 22-23. *See* Hevert Direct, at 49.

recommendation downward. My response to Mr. Filarowicz therefore will focus on: (1) the method by which he determined his ROE range and recommendation; (2) his application of the Multi-Stage DCF analysis; and (3) the application of his Risk Premium analysis.

A. Determination of the ROE Range and Recommendation

Q. PLEASE BRIEFLY DESCRIBE THE METHOD BY WHICH MR. FILAROWICZ ESTABLISHED HIS ROE RANGE AND POINT ESTIMATE.

A. As noted above, Mr. Filarowicz's ROE range and recommendation rely directly on his DCF and Risk Premium analyses. The low end of Mr. Filarowicz's ROE range is approximately equal to the average of his Constant Growth and Multi-Stage DCF point estimates, and the high end relates to his Risk Premium approach. Mr. Filarowicz's results are summarized in Table 3.

**Table 3: Summary of Mr. Filarowicz's ROE Results[24]**

| *Method* | *Point Estimate* | *Range* |
|---|---|---|
| Single Stage DCF | 8.51% | 6.15% - 11.33% |
| Multi-Stage DCF | 8.43% | 7.61% - 8.95% |
| Combined DCF | 8.47% | 6.15% - 11.33% |
| Risk Premium | 9.64% | NA |
| Overall Recommendation | 9.30% | 8.47% - 9.64% |

24 Filarowicz Direct, at 26.

In effect, Mr. Filarowicz gives 50.00 percent weight to his Risk Premium results (9.64 percent), and 50.00 percent weight to the average of his two DCF results (8.47 percent).

Q. WHAT ARE YOUR SPECIFIC CONCERNS WITH THAT WEIGHTING CONVENTION?

A. My principal concern is that 50.00 percent of Mr. Filarowicz's ROE recommendation is based on ROE estimates below the lowest return authorized for a utility by any regulatory commission in at least 30 years, and cannot be considered reasonable estimates of the Company's Cost of Equity. In fact, Mr. Filarowicz's average DCF result falls below *all* of the 1,518 electric cases reported by RRA since 1980.[25]

Mr. Filarowicz's low DCF results are not surprising given that he relies on 12-week average stock prices, which include the period of peak utility Price/Earnings ("P/E") ratios (*see* Chart 11 in my response to Mr. Gorman). As noted in my Direct Testimony and discussed in more detail in my response to Mr. Gorman (below), it is highly improbable that utility companies would continue to trade at such high levels in perpetuity. Consequently, Mr. Filarowicz's DCF results should be given little, if any weight in determining the Company's Cost of Equity.

Lastly, Mr. Filarowicz's Risk Premium is not forward-looking. Simply adjusting Mr. Filarowicz's results to reflect forward-looking estimates of corporate bond yields would increase his Risk Premium estimate from 9.64 percent to 9.89 percent, which is only eleven basis points from the low end of my recommended range.

Q. WHAT CONCLUSIONS DO YOU DRAW FROM THAT DATA?

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25 Excludes Limited Rate Rider cases. Mr. Filarowicz relies on RRA for the data used in his Risk Premium analysis.

A. It is clear that Mr. Filarowicz sees authorized returns as providing a meaningful measure of investors' return requirements; that is the fundamental basis of his Risk Premium analysis. That data, however, clearly indicates Mr. Filarowicz's 9.30 percent ROE recommendation is unreasonably low.

B. Application of the Multi-Stage DCF Model

Q. PLEASE PROVIDE A SUMMARY DESCRIPTION OF MR. FILAROWICZ'S MULTI-STAGE DCF MODEL.

A. Mr. Filarowicz's Multi-Stage DCF model calculates the Internal Rate of Return (that is, the Cost of Equity) that sets the current stock price equal to the present value of projected dividends. The fundamental difference between his Constant Growth and Multi-Stage DCF models is that the former assumes the same growth rate in perpetuity, while the latter allows for a change from the first stage growth (years one through five) to a long-term growth rate (years six through perpetuity).[26] As with his Constant Growth DCF model, the first stage of Mr. Filarowicz's Multi-Stage DCF model relies on analyst earnings projections from Zacks and Value Line as the relevant measures of growth. The second, or "terminal," stage of Mr. Filarowicz's model assumes long-term growth is best measured by expected growth in nominal Gross Domestic Product ("GDP").[27]

Q. IN GENERAL, DO YOU AGREE WITH THE USE OF MULTI-STAGE DCF MODELS?

A. Yes, I do. Properly structured, the Multi-Stage DCF model allows analysts to address several of the limiting assumptions that underlie the Constant Growth form of the model.[28] I also agree with Mr. Filarowicz that analyst earnings growth estimates provide

26 Mr. Filarowicz's DCF analyses project dividends for a 150-year period, which is generally consistent with a perpetual dividend assumption. *See* Filarowicz Direct, at 15-16.
27 *See* Filarowicz Direct, at 18.
28 *See* Hevert Direct, at 39.

the proper basis of the first-stage growth, and that nominal GDP is a reasonable measure of expected long-term growth.[29]

Q. ARE THERE SPECIFIC AREAS IN WHICH YOU DISAGREE WITH MR. FILAROWICZ'S MULTI-STAGE DCF MODEL ASSUMPTIONS?

A. Yes, I disagree with the following assumptions:

1. That growth will change immediately from Stage 1 to Stage 2; and
2. That quarterly dividends are not received until year-end.

Q. TURNING TO YOUR FIRST POINT, WHAT IS YOUR CONCERN WITH MR. FILAROWICZ'S TWO-STAGE APPROACH?

A. My concern is the model does not reasonably approximate the transition in growth from the first stage to the terminal stage. Although Mr. Filarowicz's two-stage approach assumes the change will occur immediately between years five and six, a more reasoned (and very common) approach is to assume growth will transition from the first to the terminal stage over a given period of time. Morningstar Inc. ("Morningstar"), for example, describes a three-stage approach in which growth moves toward the long-term estimate over a five-year transition stage.[30] In practice, the three-stage approach assumes growth in the first stage is best measured by analysts' earnings growth rate projections, growth in the third stage is estimated as expected long-term (nominal) GDP growth as of the beginning of the third stage, and the second stage is a transition (generally either on a linear or geometric basis) from the first to the third.

29 Hevert Direct at 42-43. As noted in my Direct Testimony at page 44, I also calculated the terminal value based on the current P/E ratio.
30 *See* Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook at 50.

Q. HOW DOES MR. FILAROWICZ'S ASSUMPTION REGARDING THE TIMING OF DIVIDEND PAYMENTS AFFECT HIS MULTI-STAGE DCF RESULTS?

A. Mr. Filarowicz's model assumes all quarterly dividends are received at year-end. Fundamental to the DCF method, however, is the principle that money has time value.[31] Given that utility dividends are paid on a quarterly basis, assuming quarterly dividends all are received at year-end (rather than during the course of the year) defers the timing of those cash flows, and reduces the DCF result. Because Mr. Filarowicz's model assumes annual dividend payments, a reasonable approach would be to assume that cash flows are received in the middle of each year, such that half the quarterly dividend payments occur prior to the assumed dividend payment date, and half are received after that date (i.e., the "mid-year convention"). As Duff & Phelps notes:

> Common practice in business valuation is to assume that the net cash flows are received on average continuously throughout the year (approximately equivalent to receiving the net cash flows in the middle of the year), in which case the present value factor is generally based on a mid-year convention (e.g., (1+k)0.5).[32]

Q. WOULD MR. FILAROWICZ'S MULTI-STAGE DCF RESULTS BE DIFFERENT IF THE MID-YEAR CONVENTION FOR DIVIDEND PAYMENTS WAS USED?

A. Yes. Exhibit RBH-8R, which replicates Mr. Filarowicz's Attachment MF-6, demonstrates that his model assumes year-end cash flows. As Exhibit RBH-8R also demonstrates, simply changing the dividend timing to reflect the mid-year convention increases the mean and median results by approximately 14 basis points (from 8.43 percent and 8.49 percent, to 8.57 percent and 8.63 percent, respectively). Even with that change,

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31 For example, The Chartered Financial Analyst ("CFA") Institute's program curriculum notes: "Money has time value in that individuals value a given amount of money more highly the earlier it is received. Therefore, a smaller amount of money now may be equivalent in value to a larger amount received at a future date. The time value of money as a topic of investment mathematics deals with equivalence relationships between cash flows with different dates. Mastery of time value of money concepts and techniques is essential for investment analysts." 2011 CFA Curriculum Level I, Volume 1 at 255-256.

32 Duff & Phelps, 2016 Valuation Handbook, Guide to Cost of Capital at 1-4.

however, Mr. Filarowicz's model produces results too low to be reasonable estimates of the Company's Cost of Equity.

Q. HOW DOES MR. FILAROWICZ'S ASSUMPTION REGARDING THE PAYOUT RATIO DIFFER FROM THE ASSUMPTION INCLUDED IN YOUR MULTI-STAGE DCF MODEL?

A. Whereas my model allows for payout ratios to move toward their long-term average over time, Mr. Filarowicz assumes payout ratios will remain unchanged over the entire 145-year terminal period of his two-stage DCF model. As explained in my Direct Testimony, it is reasonable to assume near-term payout ratios will revert to the long-term industry average over the horizon of the DCF analysis.[33] As discussed in more detail in my response to Mr. Gorman, a number of electric utility companies have indicated to analysts that their payout ratios likely will increase, and are targeting payout ratio ranges highly consistent with the long-term industry average used in my Multi-Stage DCF analysis.

C. Application of the Risk Premium Model

Q. DO YOU HAVE ANY CONCERNS WITH MR. FILAROWICZ'S 9.64 PERCENT ROE ESTIMATE DERIVED FROM HIS "CONVENTIONAL" RISK PREMIUM MODEL?

A. Yes, I do. As a preliminary matter, I note Mr. Filarowicz and I agree there is a statistically significant inverse relationship between the risk premium and interest rates. However, as Mr. Filarowicz acknowledges,[34] the Cost of Equity is forward-looking and as such, it would have been more appropriate for Mr. Filarowicz to consider consensus forecasts

33 Hevert Direct, at 43.
34 Filarowicz Direct, at 18.

for Baa corporate bond yields.[35] Blue Chip Financial Forecasts, which provides consensus estimates from over 50 business economists, projects Baa corporate bond yields to steadily rise from their current approximately 4.52 percent level to 5.60 percent over the next six quarters.[36] Using the 5.17 percent average near-term forecast of the Baa bond yield over that period (Q3 2017 through Q4 2018), Mr. Filarowicz's Risk Premium analysis would produce an ROE estimate of 9.89 percent.[37] That result is much more consistent with recently authorized returns for electric utilities.

## V. RESPONSE TO OPUC WITNESS WINKER

Q. PLEASE SUMMARIZE MS. WINKER'S ROE RECOMMENDATION.

A. Ms. Winker recommends an ROE of 9.10 percent, which represents the upper end of her recommended Constant Growth DCF model range (7.99 percent to 9.10 percent). In support of her recommendation, Ms. Winker states that her recommendation "support[s] current market conditions and the conclusion that capital costs remain at historically low levels".[38] She concludes her recommendation is "reasonable and will allow EPE to maintain its financial integrity and continue to attract capital on reasonable terms."[39] Table 4 below summarizes Ms. Winker's analytical results.

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35 Blue Chip does not provide projections for utility bond yields; however, as noted in my Direct Testimony (and in my response to Mr. Gorman), there is no material difference in corporate and utility Baa bond yields.
36 *Blue Chip Financial Forecast,* Vol. 36, No. 7, July 1, 2017, at 2.
37 5.17% + (-0.4372) x (5.17% - 8.66%) + 3.20% = 9.89%. *See* Attachment MF-7 for Mr. Filarowicz's Risk Premium methodology.
38 Winker Direct, at 32.
39 *Ibid.*

**Table 4: Summary of Ms. Winker's ROE Results**[40]

| Methodology | Range |
|---|---|
| Constant Growth DCF | 7.99 – 9.10% |
| Bond Yield Plus Risk Premium | 8.67 – 9.01% |
| CAPM | NA |
| Recommendation | 9.10% |

Ms. Winker recommends a capital structure of 47.60 percent common equity and 52.40 percent long-term debt, and a cost of debt of 5.725 percent as recommended by OPUC witness Dr. Carol Szerszen[41]

Q. PLEASE SUMMARIZE THE KEY AREAS IN WHICH YOU DISAGREE WITH MS. WINKER'S ROE ANALYSES AND CONCLUSIONS.

A. As a general matter, I strongly disagree that 9.10 percent is a reasonable estimate of the Company's Cost of Equity, or that it "will allow EPE to maintain its financial integrity and continue to attract capital on reasonable terms," as Ms. Winker claims. As to Ms. Winker's analyses in particular, my principal areas of disagreement include: (1) the interpretation of current capital market conditions and their effect on the Cost of Equity; (2) the growth rate assumptions contained in our DCF analyses; and (3) the application of the Bond Yield Plus Risk Premium approach. Because Ms. Winker does not rely on her CAPM-based estimates, I do not address her application of that method.

I also note that Ms. Winker disagrees with my proxy group. Ms. Winker used my screening criteria, initially, but included four companies that I excluded as parties to mergers or significant transactions: (1) Dominion Resources, Inc., (2) Duke Energy Corporation

40 *Ibid.*
41 *Ibid.*

("Duke"), (3) Edison International, and (4) Southern Company.[42] As noted above, I have included Dominion Resources and Southern Company in my updated proxy group. For the reasons explained below, I continue to exclude Duke and Edison International due to transaction activity or a major event affecting their overall financial condition.

In addition to Duke's recent acquisition of Piedmont Natural Gas Company, the company recently divested its Latin America businesses, and its Brazil holdings.[43] As for Edison International, EIX's earnings have been effected by lingering issues related to the settlement agreement associated with the Chapter 11 bankruptcy of its merchant generation business, as well as concerns regarding the potential reopening of a regulatory settlement related to the closure of a nuclear plant.[44]

A. Effect of Capital Market Conditions on the ROE

Q. PLEASE SUMMARIZE MS. WINKER'S TESTIMONY REGARDING THE INTERPRETATION AND EFFECT OF CURRENT AND EXPECTED MARKET CONDITIONS ON THE COST OF EQUITY.

A. Ms. Winker states that "the analyses to determine rate of return are impacted by the current low interest rate environment and low inflation",[45] and that her ROE recommendation of 9.10 percent "support[s] current market conditions and the

42 Winker Direct, at 15. I note that Ms. Winker's testimony stated that she included Exelon Corporation, however, her Schedules indicate that she included Edison International, not Exelon Corporation.
43 Duke Energy Corporation, SEC Form 8-K, October 10, 2016, at 1-2.
44 EIX placed its merchant generation business unit into Chapter 11 bankruptcy and subsequently sold it to NRG Energy. Although the sale of that segment was completed in April 2014, there are continuing effects on the company's near-term financial outlook associated with a settlement agreement related to the business units' bankruptcy, including required payments of $204 million in 2015, and $214 million in 2016 (*see* Edison International, SEC Form 10-K, for the Fiscal Years Ended December 31, 2013 at 35-36 and December 31, 2014 at 104. The California PUC reopened the record to review the San Onofre OII Settlement Agreement in May 2016, after fining the company in December 2015 for violation of ethics rules related ex-parte communications. (*see* Edison International, SEC Form 10-Q, for the Quarter ending September 30, 2016 at 51). See also Value Line's report on EIX, October 28, 2016.
45 Winker Direct, at 8.

conclusion that capital costs remain at historically low levels".[46] However, Ms. Winker disagrees with expectations of increased capital costs.[47]

Q. WHAT IS YOUR RESPONSE TO MS. WINKER ON THOSE POINTS?

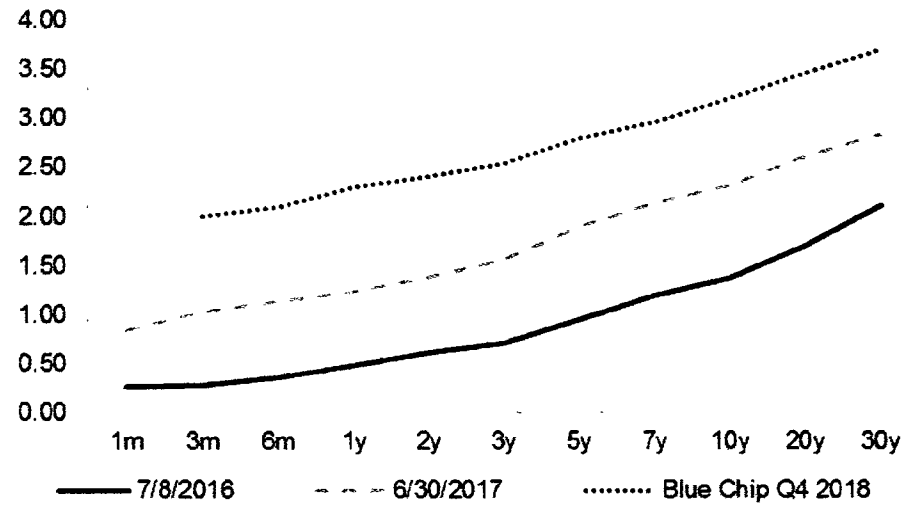
A. Ms. Winker appears to believe that although the current interest rate environment affects the cost of equity,[48] expectations of higher future interest rates do not. Ms. Winker acknowledges the Federal Reserve's recent interest rate hikes, and that the federal funds rate affects other "economy-wide interest rates."[49] However, she apparently believes that the Federal Reserve's normalization policy of increasing interest rates (even at a gradual pace) and reducing its holdings of long-term securities will not increase the cost of equity.

Q. HAVE INTEREST RATES INCREASED AS THE FEDERAL RESERVE RAISED THE FEDERAL FUNDS RATE?

A. Yes, they have. The Federal Reserve increased the Federal Funds target rate by 75 basis points since interest rates hit historical lows in July 2016, such that the target rate now stands at 1.00 percent to 1.25 percent. Short-term interest rates have increased by a corresponding amount since early July 2016.[50] Long-term yields increased by wider margins, with the ten- and 30-year Treasury yields increasing by 94 basis points and 73 basis points, respectively (*see* Chart 3 below).

46 Winker Direct, at 32.
47 Winker Direct, at 11-12.
48 Winker Direct, at 8.
49 *Ibid.*, at footnote 2
50 Federal Reserve Board Schedule H.15. 6-month and 1-year Treasury yields increased by 78 and 76 basis points, respectively.

**Chart 3: Treasury Yield Curve: 7/8/16, 6/30/2017 and Projected Q1 2018[51]**




The increase in the ten- and 30-year Treasury yields from July 2016 to June 2017 is among the highest increase in at least 25 years.[52] That increase is highly related to increasing expected inflation. To that point, leading up to and following the November 2016 Presidential election, expected inflation, as measured by the difference between nominal Treasury yields and Treasury Inflation Protected Securities (that difference often is referred to as the "TIPS spread") also increased, such that it now stands somewhat above the Federal Reserve's 2.00 percent inflation target (*see* Chart 4, below).

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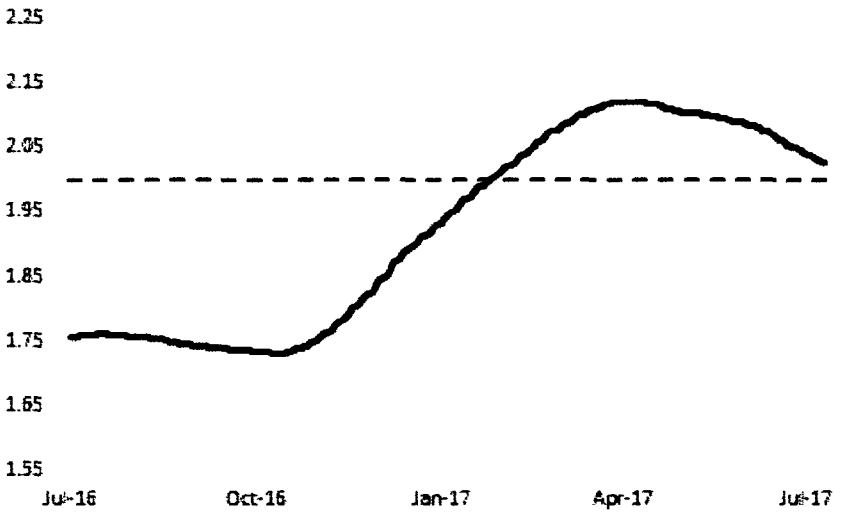
51 Federal Reserve Board Schedule H.15.; *Blue Chip Financial Forecasts*, Vol. 36, No.7, July 1, 2017, at 2-year, 3-year, 7-year, and 20-year projected Treasury yields (interpolated).

52 Source: Federal Reserve Schedule H.15. The increases fall in the top 83rd percentiles for both the 10 and 30-year Treasury yields, respectively.

**Chart 4: Forward Inflation Estimates 7/1/2016 – 6/30/2017**[53]




The increase in both long-term interest rates and inflation, particularly considering the magnitude of the changes over an abbreviated period, suggest higher investor return requirements.

Q. DOES MARKET-BASED DATA INDICATE THAT INVESTORS SEE A PROBABILITY OF FURTHER INCREASING INTEREST RATES?

A. Yes. Looking to long-term interest rates, consensus projections gathered by *Blue Chip Financial Forecasts* ("*Blue Chip*") suggest a 30-year Treasury yield of 3.70 percent by the second quarter of 2018 (an 87 basis point increase over the 2.83 percent yield as of end of June).[54] The Social Security Administration ("SSA") similarly projects long-term Treasury yields to increase from 2.40 percent in 2016 to 4.80 percent by 2021.[55]

53 Forward inflation estimates calculated as the difference between implied nominal and inflation protected 20-year Treasury yields in 10 years. Series presented as a 100-day moving average

54 *Blue Chip Financial Forecasts*, Vol. 36, No. 7, July 1, 2017, at 2.

55 Table V.B2 of the 2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. The SSA produces three forecast "cases": The Low Cost Case, the Intermediate Case, and the High Cost Case. The projected yields noted above relate to the Intermediate Case.

Further, as discussed in my Direct Testimony, option prices currently show that investors are willing to pay about 50.00 percent more for the option to sell bonds in the future (at today's price) than they are willing to pay for the option to buy those bonds.[56] That market-based data tells us that investors consider an increase in interest rates as likely.

Looking to short-term interest rates, data compiled by CME Group indicates that investors see a high likelihood of further Federal Funds rate increases, even after the increases in March and June 2017. As shown in Table 5 (below), the market is now anticipating at least one additional rate hike (80.10 percent probability) and possibly two or three (40.30 percent and 11.50 percent probability, respectively) by June 2018. In fact, the implied probability of no increase in the coming year is less than 20.00 percent.

**Table 5: Probability of Federal Funds Rate Increase[57]**

| Target Rate (bps) | Federal Reserve Meeting Date | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 7/26/17 | 9/20/17 | 11/1/17 | 12/13/17 | 1/31/18 | 3/21/18 | 5/2/18 | 6/13/18 |
| 100-125 | 96.9% | 81.0% | 77.8% | 41.6% | 39.9% | 28.7% | 27.5% | 19.9% |
| 125-150 | 3.1% | 18.4% | 21.0% | 47.4% | 47.1% | 45.1% | 44.4% | 39.8% |
| 150-175 | | 0.5% | 1.2% | 10.4% | 11.9% | 21.9% | 22.8% | 28.8% |
| 175-200 | | | | 0.6% | 1.0% | 4.1% | 4.8% | 9.8% |
| 200-225 | | | | | | 0.3% | 0.5% | 1.7% |
| 225-250 | | | | | | | | 0.1% |

Lastly, we can view the market's expectations of future interest rates based on the current yield curve. Those expected rates, often referred to as "forward yields" are derived from the "Expectations" theory, which states that (for example) the current 30-year Treasury yield equals the combination of the current one-year Treasury yield, and the 29-year Treasury yield expected in one year. That is, an investor would be indifferent to (1) holding a 30-year Treasury to maturity, or (2) holding a one-year

56 The option to sell the TLT index in January 2018 at today's price is approximately one and a half times the value of the option to buy the fund. Source: http://www.nasdaq.com/symbol/tlt/option-chain?dateindex=7. *See also*, Hevert Direct, at 13.

57 http://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html, accessed July 6, 2017.

Treasury to maturity, then a 29-year Treasury bond, also to maturity.[58] As Chart 5 (below) indicates, since 2006 the implied forward 29- and 28- year yields (one and two years hence, respectively) consistently exceeded the (interpolated) spot yields. That is, just as economists' projections called for increased interest rates, so did observable Treasury yields.

**Chart 5: Forward vs. Interpolated Treasury Yields[59]**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58 In addition to the Expectations theory, there are other theories regarding the term structure of interest rates including: the Liquidity Premium Theory, which asserts that investors require a premium for holding long term bonds; the 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 the Preferred Habitat Theory, which states that in addition to interest rate expectations, certain investors have distinct investment horizons and will require a return premium for bonds with maturities outside of that preference.

59 Federal Reserve Schedule H.15. Spot yields are interpolated.

B. Application of the Constant Growth DCF Model

Q. PLEASE BRIEFLY SUMMARIZE MS. WINKER'S DCF ANALYSIS AND RECOMMENDATION.

A. For each of her proxy companies, Ms. Winker calculates two dividend yields; one using the current annualized dividend and the average of the 2017 high and low stock prices, and a second using the using the current annualized dividend and the average of the 2017 high and low stock prices and the spot price as of May 17, 2017, as reported by Yahoo! Finance. For the dividend growth rate component, Ms. Winker reviews eleven growth rates as reported by Value Line, including: the five-year historical growth rate in earnings, dividends, and book value; the ten-year historical growth rate in earnings, dividends, and book value; the five-year projected growth rate in earnings, dividends, and book value; the 2017 projected Sustainable Retained Earnings Growth ("Sustainable Growth") rate (i.e., the "B x R" form of the sustainable growth rate), which is calculated as the retention ratio ("B") multiplied by the earned return on book equity ("R"); and the five-year projected "BxR" sustainable growth rate.[60] Based on her review, she determines that "a reasonable (historical and projected) growth rate expectation for the proxy group is 4.62% to 5.68%."[61] Combining her recommended range of growth rates and two dividend yields, Ms. Winker arrives at her DCF-based ROE range of 7.99 percent to 9.10 percent.[62]

Q. DOES MS. WINKER PROVIDE THE CALCULATIONS SUPPORTING HER DCF RESULTS AND RECOMMENDED RANGE?

60 Winker Direct, at 20-23.
61 Winker Direct, at 23.
62 Winker Direct, at 24.

A. No, she does not. Although Ms. Winker's DCF-based ROE recommendation is 7.99 percent to 9.10 percent, her exhibits do not provide the calculations supporting those specific estimates. I therefore calculated the DCF result for each combination of average growth rates and dividend yields presented in Schedule AW-1. Based on that analysis, the full range of Ms. Winker's DCF results are 6.89 percent to 10.30 percent (see Exhibit RBH-9R).

Although Ms. Winker reviews historical and projected measures of growth for each of her proxy companies, the growth rate estimates used in her DCF estimates (4.62 percent to 5.68 percent) rely on her judgment as to what may or may not represent sustainable, long-term growth. That is, neither of those two growth rates are among the eleven reviewed in Schedule AW-1. Whereas utility analysts often research the factors that fundamentally influence a given company's long-term growth, Ms. Winker instead selects her long-term growth estimates based on a summary review of earnings, dividend, book value, and retention growth estimates. In effect, Ms. Winker has substituted her judgment for those of utility analysts, who based their growth rate projections on detailed, fundamental analyses.

Q. DO YOU AGREE WITH MS. WINKER'S POSITION THAT THE SUSTAINABLE GROWTH RATE IS AN APPROPRIATE MEASURE OF LONG-TERM GROWTH FOR COMPANIES SUCH AS EPE?

A. No, I do not. It is important keep in mind that earnings growth enables both dividend and book value growth. That is, book value of equity can increase only through increases to retained earnings, or through the issuance of new equity. Both of those factors are derived from earnings: Retained earnings increase with the amount of earnings not distributed as dividends; and the price at which new equity is issued is a function of the earnings per share and the then-current P/E ratio. In addition, the academic research

cited in my direct testimony clearly has indicated that measures of earnings and cash flow are strongly related to returns.[63] As a consequence, I use consensus earnings growth estimate in my DCF analyses.[64]

Moreover, under the strict assumptions of the Constant Growth DCF model, earnings, dividends, book value, and stock prices all grow at the same, constant rate. As Exhibit RBH-10R demonstrates, under those assumptions the assumed growth rate equals the rate of capital appreciation (*i.e.*, the stock price growth rate). Because investors tend to value common equity on the basis of P/E ratios, Cost of Equity is a function of the expected growth in earnings, not dividends or book value.

In addition, Value Line is the only service relied on by Ms. Winker that provides either DPS or BVPS growth projections. The fact that services such as Zacks and First Call provide earnings, but not dividend growth estimates, this indicates they likely see little investor demand for such data. As Dr. Roger Morin notes:

> Casual inspection of the Zacks Investment Research, First Call Thompson, and Multex Web sites reveals that earnings per share forecasts dominate the information provided. There are few, if any, dividend growth forecasts. Only Value Line provides comprehensive long-term dividend growth forecasts. The wide availability of earnings forecast is not surprising. There is an abundance of evidence attesting to the importance of earnings in assessing investors' expectations. The sheer volume of earnings forecasts available from the investment community relative to the scarcity of dividend forecasts attests to their importance. The fact that these investment information providers focus on growth in earnings rather than growth in dividend indicates that the investment community regards earnings growth as a superior indicator of future long term growth.[65]

Value Line estimates are available only via a subscription service and are attributable to a single analyst. Services such as Zacks and First Call, on the other

63 Hevert Direct at 31-32.
64 Ms. Winker also relies on EPS growth rates in the application of her DCF models. *See* Winker Direct at 23.
65 Roger A. Morin, PhD, New Regulatory Finance, Public Utilities Reports, Inc., 2006 at 320-303.

hand, provide consensus growth estimates of multiple analysts and as such, are less likely to be influenced in one direction or another by an individual analyst.

Lastly, Ms. Winker's Schedule AW-2 demonstrates that, on a historical basis, earnings outpaced both dividend and book value growth. Consequently, Ms. Winker's assumption that projected earnings growth is limited by expected book value growth is contradicted by her own data.

Q. DO YOU AGREE WITH MS. WINKER'S SPECIFICATION OF THE RETENTION GROWTH RATE?

A. No, I do not. If Ms. Winker wishes to consider a form of Sustainable Growth, she should use the "BR + SV" form of the model, which reflects growth from both internally generated funds (i.e., the "BR" term) and from issuances of equity (i.e., the "SV" term). As noted above, the first term is the product of the retention ratio (i.e., "B", or the portion of net income not paid in dividends) and the expected ROE (i.e., "R"), which represents the portion of net income that is "plowed back" into the company as a means of funding growth. The "SV" term is represented as:

$$(\frac{m}{b} - 1) \text{ x Common Shares growth rate} \quad \text{Equation [1]}$$

where:

$\frac{m}{b}$ = the market to book ratio.

In that form, the "SV" term reflects an element of growth as the product of (1) the growth in shares outstanding, and (2) the extent to which the market-to-book ratio that exceeds unity.

The full form of the model assumes growth is a function of its expected earnings, and the extent to which it retains earnings to invest in the enterprise. The simpler form

of the model on which Ms. Winker relies defines growth as a function of internally generated funds, only.

Further, Ms. Winker's average "BR" growth estimate is 3.61 percent, whereas her projected Earnings and Dividend Per Share growth rates are 5.11 percent and 5.70 percent, respectively. Because dividends are expected to grow faster than earnings, the retention ratio (i.e., "B") is not expected to remain constant over time. Here again, the "BR" model is based on questionable assumptions.

Lastly, although the "retention growth" method assumes growth will increase as the dividend payout ratio increases, there are several reasons why that may not be the case. Management decisions to conserve cash for capital investments, to manage the dividend payout for the purpose of minimizing future dividend reductions, or to signal future earnings prospects can and do influence dividend payout (and therefore earnings retention) decisions in the near-term.

Q. ARE THERE OTHER CONCERNS WITH THE SUSTAINABLE GROWTH ESTIMATE?

A. Yes. Because the Sustainable Growth model requires an estimate of the earned Return on Common Equity ("ROCE"), it includes an element of circularity. By adopting Value Line's three- to five-year projected earned ROE estimates, Ms. Winker has effectively pre-supposed the ROCE projected by Value Line for the proxy companies. Moreover, Ms. Winker's calculation of Sustainable Growth relies on a single source of data (Value Line), whose estimates are produced by a single analyst, which increases the risk of idiosyncratic error that may bias the end results.

In any case, Ms. Winker appears to believe her sustainable growth estimates of 3.51 percent and 3.70 percent are unreasonable, as they are below the range used in her DCF estimates (i.e., 4.62 percent to 5.68 percent).

Q. IS MS. WINKER'S RECOMMENDATION CONSISTENT WITH VALUE LINE'S PROJECTED RETURN ON COMMON EQUITY FOR HER PROXY COMPANIES?

A. No, it is not. As shown in Table 6 below, Value Line projects the ROCE for her proxy companies to be more than 160 basis points above her recommendation.

**Table 6: Proxy Group Three to Five Year Projected ROCE[66]**

| PROXY COMPANY | TICKER | PROJECTED ROCE |
|---|---|---|
| ALLETE, Inc. | ALE | 9.0% |
| Alliant Energy Corporation | LNT | 13.0% |
| Ameren Corporation | AEE | 10.0% |
| American Electric Power Company | AEP | 11.0% |
| Avista Corporation | AVA | 8.0% |
| Black Hills Corporation | BKH | 10.5% |
| CMS Energy Corporation | CMS | 13.5% |
| Dominion Resources, Inc. | D | 19.0% |
| DTE Energy Company | DTE | 10.5% |
| Duke Energy Corporation | DUK | 8.5% |
| Edison International | EIX | 11.0% |
| IDACORP, Inc. | IDA | 9.0% |
| NorthWestern Corporation | NWE | 9.5% |
| OGE Energy Corp. | OGE | 12.0% |
| Otter Tail Corporation | OTTR | 10.0% |
| Pinnacle West Capital Corporation | PNW | 10.0% |
| PNM Resources, Inc. | PNM | 9.5% |
| Portland General Electric Company | POR | 9.5% |
| SCANA Corporation | SCG | 10.0% |
| Southern Company | SO | 12.0% |
| Wisconsin Energy Corporation | WEC | 11.0% |
| Xcel Energy Inc. | XEL | 10.5% |
| **AVERAGE** | | **10.79%** |

Q. ARE BOOK VALUE GROWTH RATES, DIVIDEND GROWTH RATES, OR EARNINGS RETENTION GROWTH RATES BETTER PREDICTORS OF STOCK VALUATIONS THAN EARNINGS GROWTH RATES?

A. No, they are not. Ms. Winker argues that "[g]rowth in earnings and dividends alone generally do not provide reliable estimates of growth".[67] However, she has not provided

66 Source: Value Line, as of June 30, 2017.
67 Winker Direct, at 21.

any evidence or analysis to support that position. As discussed below, I performed a regression analysis and found projected earnings growth to be the best predictor of stock valuation for companies within the Value Line universe of electric utilities, including the 22 comparable companies identified by Ms. Winker.

Q. PLEASE DESCRIBE THAT ANALYSIS.

A. My analyses are based on the approach developed by Professors Carleton and Vander Weide, who performed a comparison of the predictive capability of historical growth estimates and analysts' consensus forecasts of five-year earnings growth for the stock prices of sixty-five utility companies.[68] I structured the analysis to determine whether investors use historical or projected earnings, dividend, or book value growth rates when valuing utility stocks. In particular, my analyses examine the statistical relationship between the P/E ratios of the universe of Value Line utility companies and the historical and projected EPS, DPS, and Book Value per Share ("BVPS") growth rates reported by Value Line. To determine which, if any, of those growth rates are statistically related to utility stock valuations, I performed a series of regression analyses in which the historical and projected growth rates were explanatory variables and the P/E ratio was the dependent variable. The results of those analyses are presented in Exhibit RBH-11R.

In the first set of analyses (see Exhibit RBH-11R, Scenarios 1-6), I considered each growth rate separately (i.e., I performed six separate regressions with P/E as the dependent variable, and projected and historical EPS, DPS, BVPS, respectively, as the independent variable). To ensure those individual analyses did not bias my results, I also performed a single regression analysis that included all six variables as potential

68 Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management, Spring 1988 at 81. Please note that while the original study was published in 1988, it was updated in 2004 under the direction of Dr. Vander Weide. The results of this updated study are consistent with Vander Weide and Carlton's original conclusions.

explanatory variables (Scenario 7). I then reviewed the T and F-Statistics to determine whether the variables and equations were statistically significant.[69]

Q. WHAT DID YOUR ANALYSES REVEAL?

A. As shown in Exhibit RBH-11R, the results demonstrate that the only statistically significant growth rate was the projected EPS growth rate; neither DPS nor BVPS growth rates were related to valuation levels. Further, none of the historical growth rates were statistically related to valuation levels. Consequently, projected EPS growth is the appropriate measure of growth for the purpose of the DCF models.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE USE OF BOOK VALUE GROWTH, DIVIDEND GROWTH, AND SUSTAINABLE GROWTH IN THE FORMULATION OF THE DCF MODEL FOR EPE?

A. Because dividends and book value growth depend on earnings, earnings growth is the proper measure. In addition, Value Line is the only service on which Ms. Winker relies providing DPS, BVPS, or Sustainable Growth projections. To the extent earnings projections services such as Zacks and First Call represent consensus estimates, the results are less likely to be skewed in one direction or another due to an individual analyst.

Lastly, academic research clearly has found measures of earnings to be strongly related to stock valuation. As shown in Exhibit RBH-11R, that conclusion holds true for the Value Line universe of electric utilities. Consequently, projected earnings growth rates are the appropriate measure of long-term growth.

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69 In general, a T-Statistic of 2.00 or greater indicates that the variable is likely to be different than zero, or "statistically significant" (at the 95.00% confidence level, i.e., a p-value less than 0.05). The F-Statistic is used to determine whether the model as a whole has statistically significant predictive capability.

C. Bond Yield Plus Risk Premium Analysis

Q. MS. WINKER ASSERTS YOU ADJUST THE RISK PREMIUM IN YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS UPWARD TO ACCOUNT FOR THE RELATIONSHIP BETWEEN RISK PREMIA AND 30-YEAR TREASURY BOND YIELDS.[70] IS SHE CORRECT?

A. No, she is not. Ms. Winker argues I make an "upward adjustment" to the risk premium based on the results of my regression analysis. Ms. Winker is mistaken on that point. Although the average Equity Risk Premium is provided in Exhibit RBH-7 of my Direct Testimony, it is never used as a basis for my ROE recommendation. Rather, my Equity Risk Premium estimate is based on a regression analysis, which shows a statistically significant inverse relationship between the risk premium and the Treasury bond yield. To apply an average Equity Risk Premium to the current Treasury bond yield, as Ms. Winker does in her Bond Yield Plus Risk Premium analysis, would ignore the important inverse relationship between the two.

Q. DOES MS. WINKER PERFORM A BOND YIELD PLUS RISK PREMIUM ANALYSIS?

A. Yes, she does. Using my Bond Yield Plus Risk Premium data from the years 2000 to 2016, Ms. Winker performs a Bond Yield Plus Risk Premium analysis using Moody's Investors Service ("Moody's") Average Public Utility Bond Yields rather than the 30-Year Treasury Yield applied in my analysis. As noted above, however, Ms. Winker applies her historical average risk premium of 4.56 percent to the current yield on BBB utility bonds (4.45 percent), and the average 2016 Moody's utility bond yield (4.11 percent). Her Bond Yield Plus Risk Premium results range from 8.67 percent to 9.01 percent.[71]

70 Winker Direct, at 27-28.
71 Winker Direct at 26-27.

Q. WHAT ARE YOUR CONCERNS WITH MS. WINKER'S BOND YIELD PLUS RISK PREMIUM ANALYSIS?

A. I disagree with Ms. Winker's shortened data set, and with her application of the historical average risk premium.

Q. WHAT IS YOUR CONCERN WITH MS. WINKER'S SHORTENED DATA SET?

A. Ms. Winker's Bond Yield Plus Risk Premium analysis uses my historical ROE data to calculate the average annual authorized ROE for the years 2000 to 2016 because "[t]he shorter time period effectively captures the current trend in authorized return on equity, captures two recessions and two periods of economic growth, and is more reflective of current investor expectation and market conditions".[72]

My data set includes RRA's entire history of available data (36 years) to capture the relationship between the Equity Risk Premium and interest rates over several capital market and macroeconomic cycles. Ms. Winker has not provided any evidence to demonstrate her compressed analytical period produces a more reliable analysis. In my view, a subset of that data does not make the analysis more reliable. Rather, by ignoring data and relationships among interest rates and the Equity Risk Premium over varying market conditions, Ms. Winker's analysis unnecessarily renders the model, and its results, less robust.

Q. DO YOU AGREE WITH MS. WINKER'S ASSUMPTION THAT IT IS APPROPRIATE TO RELY ON AN HISTORICAL AVERAGE EQUITY RISK PREMIUM OF 4.56 PERCENT?

A. No, I do not. As discussed in my Direct Testimony (and discussed in more detail in my response to Mr. Gorman), academic research, as well as observable market data,

72 *Ibid.*

demonstrate an inverse relationship between interest rates and the Equity Risk Premium.[73] By applying the average Equity Risk Premium calculated over a period during which interest rates were higher than their current levels, Ms. Winker has introduced an element of bias, reducing her ROE estimate. If she believes it is appropriate to use an historical average risk premium, she should also use the historical average bond yield of 5.86 percent.[74] Doing so produces an ROE of 10.41, which is only nine basis points below my point estimate, and well within my recommended range.

Q. DOES THE DATA USED IN MS. WINKER'S BOND YIELD PLUS RISK PREMIUM ANALYSIS REFLECT THE INVERSE RELATIONSHIP BETWEEN INTEREST RATES AND THE EQUITY RISK PREMIUM?

A. Yes, it does. As shown in Chart 6 (below), recreating my Bond Yield Plus Risk Premium analysis using Ms. Winker's shortened data set and her utility bond yields clearly demonstrates an observable, inverse relationship between interest rates and the Equity Risk Premium. Because the correlation between the risk premium and the utility bond yields is approximately negative 97.00, the two have moved nearly in lock-step, although in opposite directions.

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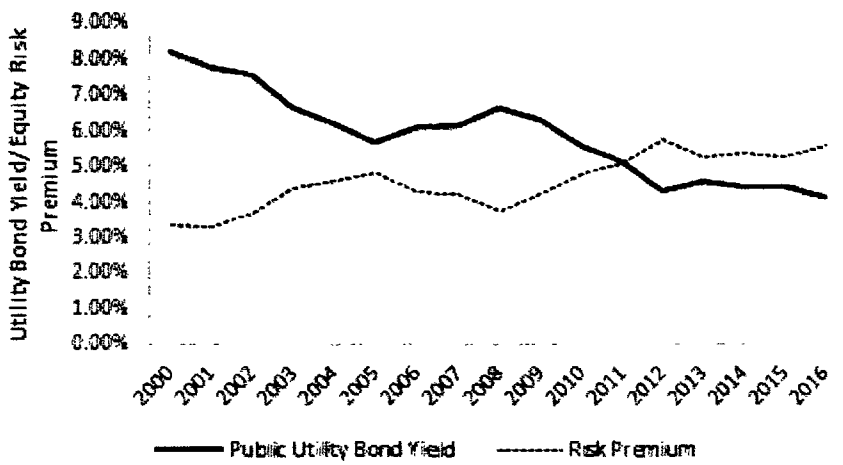
73 I note that Mr. Filarowicz agrees with that there is an inverse relationship between interest rates and the Equity Risk Premium. See Filarowicz Direct at 21.
74 *See* Winker Direct, Schedule AW-3.

**Chart 6: Ms. Winker's Utility Bond Yields and Electric ROE Risk Premium[75]**



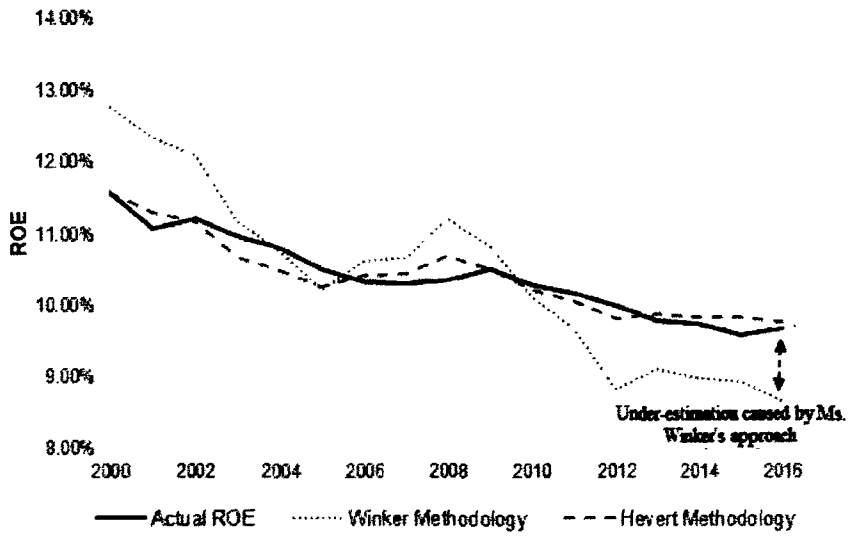

Q. HAVE YOU PERFORMED AN ANALYSIS TO DEMONSTRATE THE RELATIVE ACCURACY OF RELYING ON AN AVERAGE EQUITY RISK PREMIUM (AS MS. WINKER DOES), COMPARED TO USING THE BOND YIELD PLUS RISK PREMIUM ANALYSIS REFLECTING THE INVERSE RELATIONSHIP BETWEEN BOND YIELDS AND THE EQUITY RISK PREMIUM?

A. Yes, I have. I first calculated the ROE Ms. Winker's 4.56 percent average historical risk premium would produce in each year of her 2000 to 2016 analysis period, and calculated the error between the predicted ROE and the actual observed average ROE. I then calculated the ROE calculated in each year of the analysis period if Ms. Winker's analysis was adjusted to take into account the log normal relationship discussed in my Direct Testimony,[76] again calculating the error between the actual and predicted observations.

75 *See* Winker Direct, Schedule AW-3; Exhibit RBH-12R.
76 Hevert Direct, at 50.

As shown in Exhibit RBH-13R, Ms. Winker's Bond Yield Plus Risk Premium method produces results as much as 127 basis points removed from the actual observed ROE. Adjusting Ms. Winker's approach to reflect the inverse relationship between bond yields and the risk premium, however, reduces the largest prediction error to 34 basis points. As Chart 7 below (*see* also Exhibit RBH-13R) demonstrates, applying the Bond Yield Plus Risk Premium model adjusted for the inverse relationship produces more accurate estimates of observed average authorized ROEs. Ms. Winker's fixed Risk Premium method, however, produces significant errors, particularly in relatively low (or high) interest rate environments.

**Chart 7: Accuracy of Risk Premium ROE Estimates**




Q. TAKING INTO ACCOUNT THE INVERSE RELATIONSHIP DESCRIBED ABOVE, WHAT ARE THE RESULTS OF MS. WINKER'S BOND YIELD PLUS RISK PREMIUM ANALYSIS?

A. As shown in Exhibit RBH-12R, using the coefficients from the log normal regression, produces ROE results of 9.78 percent and 9.88 percent, respectively.

Q. WHAT IS YOUR RESPONSE TO MS. WINKER'S ASSERTION THAT YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS INCORRECTLY ASSUMES THERE IS A FIXED RISK PREMIUM AT EACH INTEREST RATE LEVEL?

A. If Ms. Winker's concern is with an analysis that does not account for changes in interest rates and market conditions,[77] then it is her analysis, which assumes a fixed risk premium of 4.56 percent, that is flawed. As explained in my Direct Testimony, the regression analysis explains the relationship between the risk premium and interest rates over time, and uses that relationship to estimate the dependent variable (i.e., risk premium) based on the change in the independent variable (i.e., the 30-Year Treasury yield).[78] Although the regression coefficients are static (or "fixed" as Ms. Winker might argue), they are static along an infinite number of independent variable inputs. That is, there is a distinct risk premium estimate[79] for each independent Treasury yield, and thus the risk premium is not "fixed".

As Ms. Winker points out, when Treasury rates were in the "3% to 4% range, the actual risk premiums varied from 5.21% to 7.57%.[80] As shown in Exhibit RBH-7, the estimated risk premiums based on my regression analysis fall within that range, and therefore are consistent with actual observed risk premiums. Extending Ms. Winker's argument to her data, utility bond yields in the 4.00 percent to 5.00 percent range[81] correspond to risk premiums ranging from 5.22 percent to 5.74 percent.[82] Ms. Winker's 4.56 percent average risk premium is below the range of her actual observed risk

77 Winker Direct, at 28.
78 Hevert Direct, at 50.
79 I note that the distinction may be quite small, nevertheless, the analysis produces a distinct risk premium estimate for each interest rate.
80 Winker Direct, at 28.
81 Ms. Winker uses utility bond yields of 4.11 percent and 4.45 percent. *See* Winker Direct, at 27.
82 *See* Schedule AW-3. As shown in Exhibit RBH-12R, the predicted risk premium based on the log-normal regression analysis is 5.32 percent to 5.67 percent, within the range of Ms. Winker's actual observed risk premium, but 75- to 102-basis points above her 4.56 average risk premium. Even using the linear relationship, her 4.56 percent average risk premium is below the estimated risk premium of 5.31 percent and 5.57 percent.

premiums. As such, her Bond Yield Plus Risk Premium analysis significantly understates the ROE.

I agree that risk premiums vary with interest rates - my analysis reflects that relationship. Because we are estimating the ROE on a forward-looking basis, we do not know for certain what the investor-required risk premium will be. Nonetheless, my analysis uses the historical relationship over approximately 1,500 observations to estimate the risk premium and the ROE, which as shown in Chart 7 above, is more accurate than Ms. Winker's simple seventeen-year average. If Ms. Winker believes a fixed risk premium is "incorrect", her 4.56 percent "fixed" risk premium likewise is incorrect and should be given no weight.

## VI. RESPONSE TO TESTIMONY OF TIEC WITNESS GORMAN

Q. PLEASE BRIEFLY SUMMARIZE MR. GORMAN'S RECOMMENDATION REGARDING THE COMPANY'S COST OF EQUITY.

A. Mr. Gorman recommends an ROE of 9.15 percent, within a range of 8.90 to 9.40 percent.[83] Mr. Gorman establishes his recommended ROE by reference to: (1) his constant growth DCF model using both consensus analyst growth rates and a sustainable growth rate (with median and average results ranging from 7.53 percent to 9.17 percent); (2) his Multi-Stage DCF method (with mean and median results of 7.76 percent and 7.80 percent, respectively);[84] (3) his Risk Premium study (ranging from 9.30 percent to 9.70 percent);[85] and (4) his CAPM analyses (ranging from 7.98 percent to 9.24 percent).[86] Mr. Gorman's 9.15 percent recommendation represents the

83 Gorman Direct, at 5.
84 *Ibid.* at 41.
85 *Ibid.* at 48.
86 *Ibid.* at 53.

approximate midpoint of his DCF (8.90 percent) and Risk Premium (9.40 percent) analyses.[87]

Q. WHAT ARE THE PRINCIPAL ANALYTICAL AREAS IN WHICH YOU DISAGREE WITH MR. GORMAN?

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

A. Market Conditions and Utility Risk Profiles

Q. WHAT IS YOUR RESPONSE TO MR. GORMAN'S OBSERVATION THAT UTILITIES REPRESENT A "MODERATE TO LOW-RISK"[88] INVESTMENT?

A. First, it is not entirely clear what Mr. Gorman means by "moderate to low-risk". There is no dispute that utilities are less risky than the overall market; the fact that they tend to have Beta coefficients less than 1.00 shows that to be the case. At the same time, the average Beta coefficient for Mr. Gorman's proxy group is 0.71,[89] suggesting a degree of risk that is not inconsequential. For example, in 2008, when the market lost about 40.00 percent of its value, the SNL Electric Company index (which Mr. Gorman provides in Figure 4, page 18, of his testimony) lost about 27.00 percent of its value. In fact, from

87 *Ibid.* at 54.
88 Gorman Direct, at 17.
89 Exhibit MPG-17.

September through December 2008, when the overall market lost about 28.00 percent of its value, the correlation between the SNL Electric Index and the S&P 500 averaged approximately 80.00 percent.[90] That is, when capital markets became increasingly distressed, utilities did not provide a safe haven.

Q. DO YOU AGREE WITH MR. GORMAN THAT THE RELATIONSHIP BETWEEN UTILITY AND CORPORATE BOND YIELDS DEMONSTRATES CAPITAL COSTS ARE LOWER FOR UTILITIES THAN THEIR CORPORATE COUNTERPARTS?

A. No, I do not. In my direct testimony, I examined the relationship between debt yields on Baa-rated utility, and corporate debt. That analysis found essentially no difference between the two, indicating that investors do not require lower returns for utilities (relative to their corporate counterparts).[91] Mr. Gorman argues my analysis of the relationship between utility and corporate bond yields, which demonstrates there is essentially no difference between the two, is "not useful in observing whether current market valuations suggest that utility costs of capital are lower than non-regulated or corporate bond issuances."[92] He states "the question is simply whether or not there is an observable difference in the current yields of Baa-rated utility bonds relative to those of Baa-rated corporate bonds."[93]

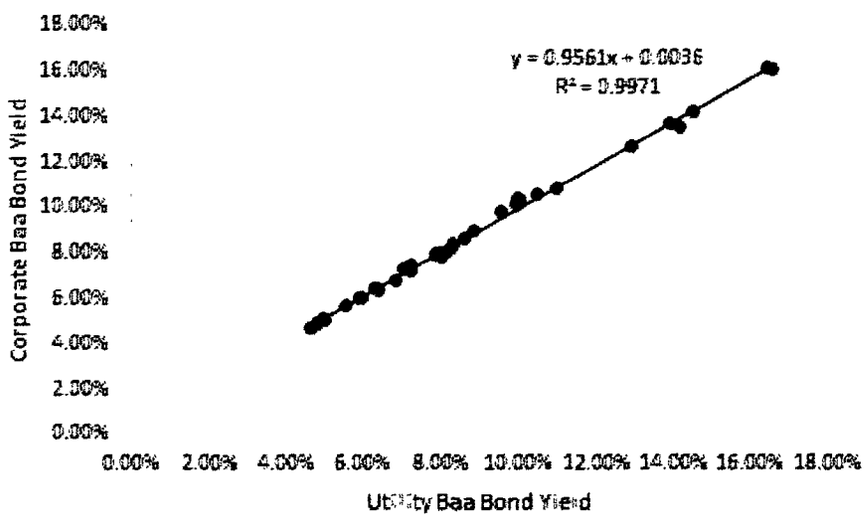
Although Mr. Gorman's Figure 5 graphs my bond yield data, the more pertinent question is whether the "observable difference"[94] between the two is statistically significant. It is not.[95] In fact, the average difference over the span of data presented in my direct testimony (and in Mr. Gorman's Figure 5) is about six basis points

90 SNL Financial. Based on daily returns. Correlations calculated over rolling three-month periods.
91 Hevert Direct, at 11,
92 Gorman Direct., at 88.
93 *Ibid.*
94 *Ibid.*
95 Hevert Direct, at 11.

(0.06 percent), with a standard deviation of eight basis points (0.08 percent). Contrary to Mr. Gorman's assertion, there is no reason to believe that utility yields have been below those of similarly-rated corporate securities.

As to Mr. Gorman's view that reviewing the relationship between yields is "not useful", I disagree. If corporate bonds were the riskier alternative, the increase in corporate yields would be greater than the increase in utility bond yields. But, the slope coefficient is essentially 1.00, and the intercept coefficient is zero; one is not more sensitive than the other. Mr. Gorman's own data brings us to the same conclusion. In his Exhibit MPG-15, Mr. Gorman provides historical data regarding the yields on Baa-rated utility bonds, as well as Baa-rated corporate bonds. Over time, the two are highly related. As Chart 8 (below) indicates, corporate bonds explain nearly 100.00 percent of the variation in utility bonds, and the relationship between the two is nearly one-to-one. Again, there is no meaningful difference between the two.

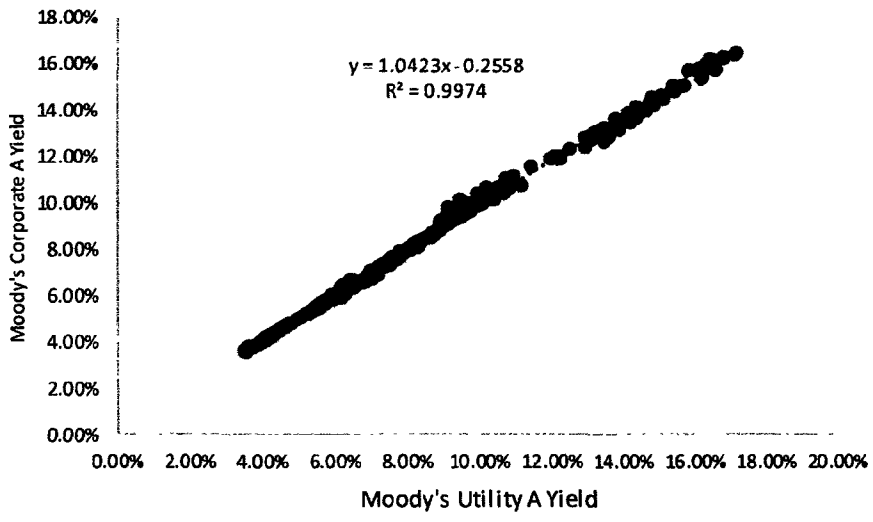
**Chart 8: Utility vs. Corporate Baa-Rated Debt Yields**[96]




96 Exhibit MPG-15

The same fundamental relationship holds for A-rated utility and corporate debt: corporate yields explain nearly 100.00 percent of the variation in utility yields, and the relationship is nearly one-to-one (see Chart 9, below). Based on data from Bloomberg, fixed income investors do not see utility debt as meaningfully less risky than corporate debt. As with Baa-rated debt, fixed income investors do not see utility A-rated debt as meaningfully less risky than its corporate counterpart; the average difference is about nine basis points, with a standard deviation of 21 basis points. Even if we assume the difference in yields is nine basis points, the difference in the Cost of Equity would be even less – based on the data in Exhibit MPG-14, a nine basis point difference in A-rated bond yields produces less than a six basis point change in the Cost of Equity.

**Chart 9: Utility vs. Corporate A-Rated Debt Yields[97]**




In short, there is no statistical difference between the yields on similarly-rated utility and corporate debt. Mr. Gorman's position that investors require lower returns for utility than for similarly-rated corporate debt is not supported by his own data. By

97 Bloomberg Professional.

extension, his view that utility debt is viewed as less risky than comparably-rated corporate debt likewise is unsupported by his data.

Q. MR. GORMAN ALSO POINTS TO UTILTY RATING CHANGES SINCE 2010 IN SUPPORT OF HIS ROE RECOMMENDATION. WHAT IS YOUR RESPONSE TO MR. GORMAN ON THAT POINT?

A. First, we should keep in mind that a long-term issuer credit rating is an opinion regarding the subject company's overall financial capacity to pay its financial obligations as they come due and payable. Those obligations are contractually defined, senior claims existing for finite periods (the life of the debt). The claims of equity holders, on the other hand, are subordinate to those of debt holders, and perpetual in life. Whereas bondholders take comfort in the subject company's assumed ability to meet its financial obligations, equity holders bear the residual risk of insufficient or volatile cash flows in perpetuity. For that fundamental reason, it is not clear there is a direct relationship between credit notches and the Cost of Equity, or that the risks of owning common equity directly correspond to the risks of owning bonds. The two have common considerations, but only to a point.

Q. MR. GORMAN ALSO REFERS TO A MARCH 2015 REPORT BY MOODY'S, SUGGESTING LOW RETURNS WILL CONTINUE TO SUPPORT HIGH VALUATIONS.[98] DO YOU HAVE A RESPONSE TO MR. GORMAN ON THAT POINT?

A. Yes. The Moody's report noted quite clearly the sensitivity of utility valuations to interest rates. Shortly after the report was published, the utility sector lost approximately

98 Gorman Direct, at 11.

15.00 percent of its value,[99] in response to changing market conditions. And as discussed earlier in my Rebuttal Testimony, there is no recent, discernible downward trend in authorized returns. I therefore do not see the March 2015 Moody's report as supporting Mr. Gorman's current ROE recommendation.

Q. AT PAGES 20 THROUGH 22 OF HIS TESTIMONY, MR. GORMAN ARGUES THAT ALTHOUGH SHORT-TERM INTEREST RATES HAVE INCREASED, LONG-TERM RATES ARE NOT EXPECTED TO RISE TO THE SAME EXTENT. WHAT IS YOUR RESPONSE TO MR. GORMAN ON THAT POINT?

A. Mr. Gorman argues the Federal Reserve's recent increase in the Federal Funds rate has not affected long-term rates, but has "simply flattened the yield curve."[100] He further argues that future increases in the Federal Funds are not expected to affect long-term rates, which are more closely related to the Cost of Equity than are short-term rates. Although Mr. Gorman points to his Table 2 to support his position, the data in the table do not suggest a further flattening of the yield curve. For example, the "term spread" (the difference in yields) between the reported 30-year Treasury yield (2.30 percent) and the Federal Funds rate (0.40 percent) as of the third quarter of 2016 was 190 basis points. The projected 30-year Treasury yield and Federal Funds rate of 3.80 percent and 1.90 percent (third quarter of 2018) likewise represent a term spread of 190 basis points. Over that period, therefore, there is no expected "flattening" of the yield curve; long-term interest rates and the Federal Funds rate both are projected to increase by 150 basis points (see Table 7, below).

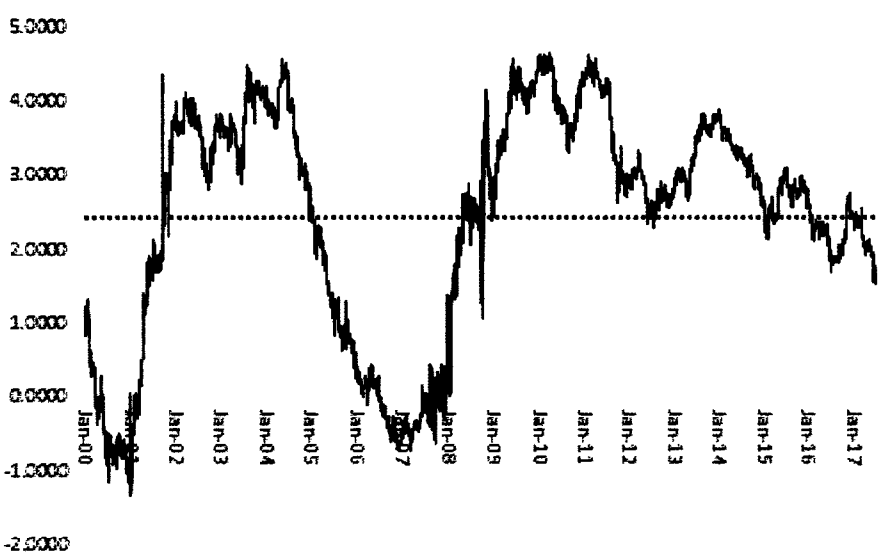
99 Bloomberg Professional.
100 Gorman Direct, at 20.

**Table 7: Term Spread Over Time[101]**

| | 3Q 2016 | 3Q 2018 | Change |
|---|---|---|---|
| Federal Funds Rate | 0.40 | 1.90 | 1.50 |
| 30-Year Treasury Yield | 2.30 | 3.80 | 1.50 |
| Term Spread | 1.90 | 1.90 | 0.00 |

Over time the term spread has been approximately 245 basis points, with a standard deviation of about 150 basis points (see Chart 10, below). Given that level of variation, it is difficult to assume the projected term spread is meaningfully different than its longer-term average.

**Chart 10: Term Spread Over Time[102]**




Further, the decline in the term spread beginning in 2011 coincides with the Federal Reserve's Quantitative Easing initiative, under which it purchased approximately $4 trillion of U.S. agency debt, and mortgage-backed securities with the specific intent of

101 Gorman Direct, at 20, Table 2.
102 Bloomberg Professional. Term spread based on effective Federal Funds rate.

putting "downward pressure" on long-term interest rates.[103] The Federal Reserve's move toward interest rate "normalization" not only includes increases in the Federal Funds rate, it also addresses the "unwinding" of those positions. Mr. Gorman's Table 2 includes interest rates projected through the third quarter of 2018, but according to *Blue Chip Financial Forecast*, which is the source of that data, the Federal Reserve will only have begun to unwind its balance sheet by then, at the earliest.[104] Consequently, the upward pressure on long-term interest rates associated with unwinding the balance sheet likely will not be observed by the latter half of 2018.

In summary, the horizon included in Mr. Gorman's Table 2 reflects increases in the Federal Funds rate, but stops short of the second facet of monetary policy normalization - unwinding the Federal Reserve's balance sheet. Because the Cost of Equity is perpetual, it is important to consider the longer-term implications of Federal monetary policy initiatives, not just a portion of those changes over a somewhat abbreviated forecast horizon.

Q. AT PAGE 21 OF HIS TESTIMONY, MR. GORMAN CITES TO THE FEDERAL RESERVE'S RECENT STATEMENTS REGARDING THE UNWINDING OF ITS BALANCE SHEET. DOES HIS OBSERVATION AFFECT YOUR CONCLUSION REGARDING THE IMPLICATIONS OF THE TERM SPREAD FOR THE COMPANY'S COST OF EQUITY?

A. No, it does not. Mr. Gorman states that "the Fed announced that as it unwinds its balance sheet position, it will do so in small increments so as to not have a significant impact on long-term interest rates." However, nowhere in the Federal Reserve's press

103 *See*, Hevert Direct, at 5-6.

104 *Blue Chip Financial Forecast*, May 1, 2017, at 1.

release from the June 2017 FOMC meeting to which Mr. Gorman cites, nor its "Addendum to the Policy Normalization Principles and Plans" released the same day, does the Federal Reserve state that its plan to gradually unwind its balance sheet in "small increments" will not have a "significant impact"[105] on long-term interest rates as Mr. Gorman claims. In fact, the Federal Reserve states it expects to "learn more" during the process of balance sheet normalization, and adjust its policy as warranted.[106] That is, the Federal Reserve understands it has never before had to consider how to unwind a $4 trillion position, and therefore, there remains uncertainty as to how the process will unfold, and how the markets will react during that process.[107] That uncertainty and risk puts additional upward pressure on long-term interest rates. Consequently, I do not agree that current and near-term "term spreads" support Mr. Gorman's unduly low ROE recommendation.

B. Constant Growth DCF Model

Q. AS A PRELIMINARY MATTER, DOES MR. GORMAN GIVE HIS CONSTANT GROWTH DCF RESULTS ANY WEIGHT IN ARRIVING AT HIS 9.15 PERCENT ROE RECOMMENDATION?

A. Yes. As noted earlier, Mr. Gorman's 9.15 percent recommendation represents the midpoint of his 8.90 percent to 9.40 percent recommended range. The bottom end of his

105 Gorman Direct, at 21.
106 Federal Reserve Press Release, "Addendum to the Policy Normalization Principles and Plans," June 14, 2017, at 2.
107 The Chairman of JPMorgan Chase has expressed similar sentiments. *See, for example*, Roberts, Cindy, "Dimon Says QE Unwind May Be More Disruptive Than You Think," Bloomberg, https://www.bloomberg.com/news/articles/2017-07-11/dimon-says-unwinding-qe-may-be-more-disruptive-than-you-think

range (8.90 percent) is based on Mr. Gorman's average DCF result;[108] the upper bound (9.40 percent) is based on the average of his Risk Premium results.[109]

To arrive at his DCF-based recommendation, Mr. Gorman discards his Multi-Stage DCF results (7.76 percent to 7.80 percent) and Constant Growth DCF model results based on the "sustainable growth" method (7.53 percent to 7.99 percent) in favor of his Constant Growth DCF results based on analysts' growth rate projections (8.86 percent to 9.17 percent).[110] Because Mr. Gorman does not rely on his Multi-Stage or sustainable growth DCF methods, I will not comment on his application of those approaches.

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

A. Yes, I do. The Constant Growth DCF model is based on several underlying assumptions establishing an inverse relationship between expected growth and the dividend yield. Under those assumptions, higher growth produces higher prices, and lower dividend yields. Conversely, lower growth produces lower prices, and higher dividend yields. Contrary to those fundamental assumptions, Mr. Gorman's Constant Growth DCF analysis (as well as other Opposing ROE Witnesses) applies historically high valuations (*see* Chart 11, below), but comparatively low growth rates.

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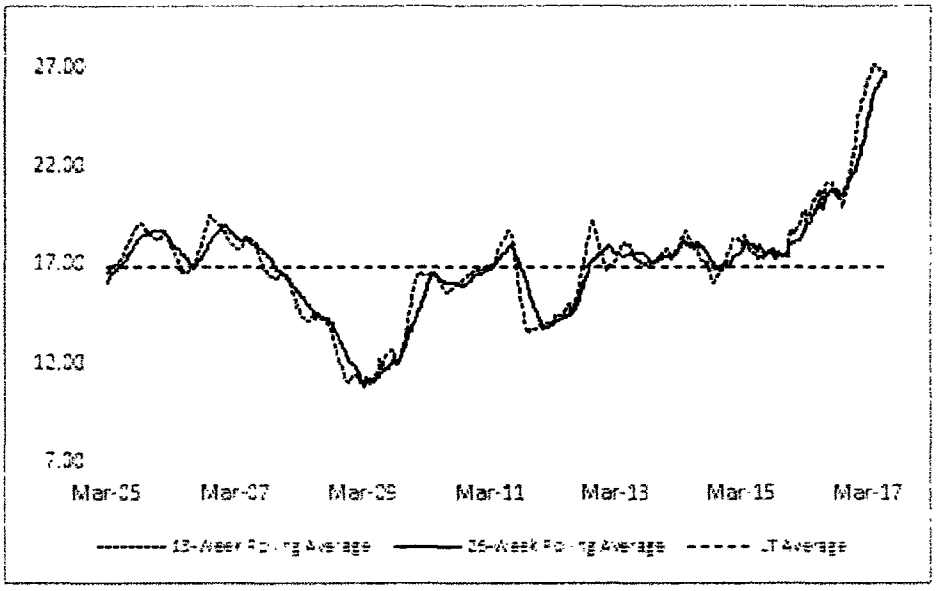
108 Gorman Direct, at 54.
109 *Ibid.*
110 *Ibid.* at 41.

**Chart 11: Mr. Gorman's Proxy Group Rolling Average P/E Ratio[111]**




As Mr. Gorman acknowledges, unsustainable expansions in P/E ratios create analytical concerns. For example, at page 52 of his Direct Testimony, Mr. Gorman discusses the MRP component of his CAPM and explains Ibbotson & Chen's finding regarding an "abnormal expansion" of P/E ratios relative to earnings and dividend growth. Because higher P/E ratios were not explained by higher growth in earnings or dividends, Ibbotson and Chen's analyses required adjustments.[112] Duff & Phelps, the source referenced by Mr. Gorman, provides that adjustment using three-year average P/E ratios, rather than relying on the current year, because "the three-year average allows the adjustment to smooth out the volatility of extraordinary events and allows earnings to better reflect a normalized trend."[113] Duff & Phelps recognized that the long-term trend of the level of P/E ratios is important, and that abnormally high P/E ratios will produce questionable analytical results.

111 SNL Financial. Proxy Group P/E ratio calculated as an index.
112 Morningstar, Ibbotson SBBI 2014 Classic Yearbook at 156 - 157.
113 Duff & Phelps, 2016 Valuation Handbook: Guide to Cost of Capital at 3-30.

The same conditions hold here. The utility sector recently has undergone an "abnormal expansion" in P/E ratios, and should not be expected to remain constant in perpetuity. Consequently, Constant Growth DCF results reflecting abnormal capital market conditions should be viewed with caution and given less weight. Whereas Duff & Phelps recognized and adjusted its analyses to reflect the abnormal expansion in P/E ratios, Mr. Gorman's DCF analyses, and his interpretation of their results, do not. Rather, Mr. Gorman suggests the model, together with current data, is "producing an economically logical estimate of the current market cost of equity."[114] Although he supports its use in his Constant Growth DCF analysis, Mr. Gorman argues that assuming a constant P/E ratio in my Multi-Stage DCF analyses is "arbitrary".[115] In short, Mr. Gorman finds the constant P/E assumption in his analyses so valid that he relies on it for one-half of his ROE recommendation. Yet, he finds my application of the same assumption to be "arbitrary". If the constant P/E ratio is an arbitrary assumption, it calls into question whether the Constant Growth DCF model is producing "economically logical" results and, therefore, the weight Mr. Gorman gives to it.

### C. Application of CAPM

Q. PLEASE BRIEFLY SUMMARIZE MR. GORMAN'S CAPM ANALYSIS AND RESULTS.

A. Mr. Gorman's two CAPM estimates (7.98 percent and 9.24 percent) are based on (1) two measures of principally historical MRP estimates, (2) *Blue Chip Financial Forecasts*' projected 30-year Treasury yield of 3.70 percent as the risk-free rate, and (3) an average Beta coefficient of 0.71 as reported by Value Line.[116] Based on his assessment of risk premiums in the current market, Mr. Gorman relies on the high-end 9.25 percent

114 Gorman Direct, at 6
115 Gorman Direct, at 66.
116 Gorman Direct, at 53 and Exhibit MPG-18.

CAPM.[117] Mr. Gorman's analyses assume MRP estimates of 7.80 percent (based on the long-term historical arithmetic average real market return from 1926 through 2016 as reported by Duff & Phelps, adjusted for current inflation forecasts) and 6.00 percent (based on the historical difference between the average return on the S&P 500 and the average total return on long-term government bonds).[118] Combining those MRP estimates with his projected long-term risk-free rate, Mr. Gorman develops expected market returns in the range of 9.70 percent to 11.50 percent.[119]

Q. TURNING FIRST TO THE EXPECTED TOTAL MARKET RETURN, DO YOU AGREE WITH MR. GORMAN'S 9.70 PERCENT AND 11.50 PERCENT ESTIMATES?

A. No, I do not. As a practical matter, Mr. Gorman's 9.70 percent expected total market return estimate, which is 215 basis points below the long-term average market return, falls in the bottom 12th percentile of the 91 annual returns reported by Morningstar.[120] His 11.50 percent estimate, which is somewhat higher, still falls in the bottom 38th percentile.

A helpful perspective on the historical market return is the rolling 50-year average annual market return. As Mr. Gorman points out, from 1926 through 2016 the arithmetic average market return was 12.00 percent.[121] Over the 50 years ended 2016, the average return was 12.30 percent, thirty basis points removed from the longer-term average that Mr. Gorman reports. Over time, the fifty-year average return has been quite consistent, in the range of approximately 12.00 percent (*see* Chart 12, below).

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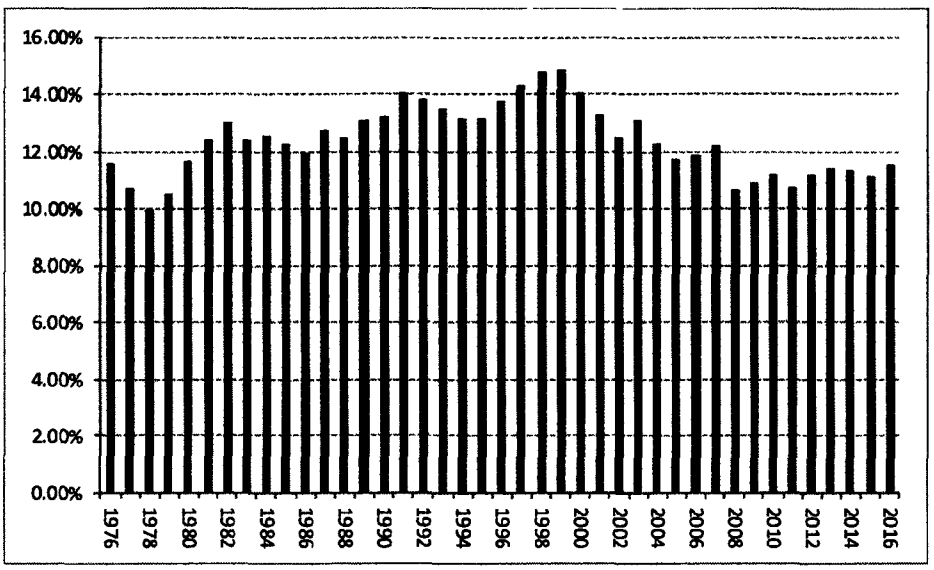
117 *Ibid.* at 53.
118 *Ibid.* at 51 and Exhibit MPG-18.
119 Mr. Gorman's low Market Risk Premium of 6.00% plus his projected risk-free rate of 3.70% equals an estimated market return of 9.70%. *See* Gorman Direct, at 51; Exhibit MPG-18.
120 Rolling average basis.
121 Gorman Direct, at 51.

**Chart 12: 50-Year Rolling Average Market Return (1977 – 2016)[122]**




Taken from that perspective, Mr. Gorman's 9.70 percent expected market return is well below the long-term market experience and, therefore, is not reasonable.

Q. HAVE YOU ALSO CONSIDERD THE HISTORICAL RELATIONSHIP BETWEEN INTEREST RATES AND THE MARKET RISK PREMIUM?

A. Yes, I have. As discussed below and in response to Ms. Winker, there has been a long-standing, widely-recognized inverse relationship between interest rates and the Equity Risk Premium. I therefore considered whether there is a similar inverse relationship between interest rates and the Market Risk Premium. To do so, I gathered the monthly market return and long-term (income only) return on government bonds as reported by Morningstar. For each month, I subtracted the interest rate from the market return to arrive at the annualized Market Risk Premium.[123]

122 Morningstar, Inc., 2016 SBBI Appendix A Tables.
123 Source: Morningstar, Inc., 2016 SBBI Appendix A Tables; 2017 SBBI Yearbook (Preview Version). I calculated returns on a monthly basis because annual returns could mask the variation in data and may not provide as reliable results as the more granular monthly calculations.

With that data, I ran two regression analyses. The first was a simple linear regression in which the dependent variable was the Market Risk Premium, and the independent variable was the income-only return on long-term Government bonds. That analysis showed that the MRP has been negatively related to interest rates, with a high level of statistical significance. To determine whether a portion of that relationship was simply a matter of time (that is, trend) I performed a second analysis that included time (as measured by the monthly date) as an additional explanatory variable. In that case, interest rates were again negative and significant, but the trend variable was insignificant. The results of both analyses are provided in Exhibit RBH-14R.[124]

Q. WHAT CONCLUSIONS DO YOU DRAW FROM THOSE ANALYSES?

A. The Market Risk Premium is not static and varies with the level of interest rates. If Mr. Gorman had considered that relationship, his CAPM result would have been about 9.72 percent, above the top end of his range.[125]

## D. Application of the Risk Premium Model

Q. PLEASE BRIEFLY DESCRIBE MR. GORMAN'S RISK PREMIUM ANALYSES.

A. Mr. Gorman defines the "Risk Premium" as the difference between average annual authorized equity returns for electric utilities and a measure of long-term interest rates each year from 1986 through 2016.[126] Mr. Gorman's first approach calculates the annual risk premium by reference to the 30-year Treasury yield, and his second approach

124 I recognize that the R-squared for the regression analyses are low, even though the regression equation, and the regression coefficients are highly statistically significant. That is the case for certain of Mr. Gorman's data, as well. For example, even though the R-squared for the unadjusted Beta coefficient for WEC Energy Group, Inc. is approximately .07, the t-statistic is approximately 4.00, indicating a high degree of statistical significance. Source: Bloomberg Professional.
125 *See*, Exhbit RBH-14R.
126 Gorman Direct, at 42-43.

considers the average A-rated utility bond yield.[127] In each case, Mr. Gorman establishes his risk premium estimate by reference to five-year and ten-year rolling averages. The lower and upper bounds of Mr. Gorman's Risk Premium range are defined by the lowest and highest rolling average, respectively, regardless of the year in which those observations occurred.[128]

Regarding the period over which he gathers and analyzes his data, Mr. Gorman argues his 31-year horizon is a "generally accepted period to develop a risk premium study using 'expectational' data."[129] On page 44 of his Direct Testimony, Mr. Gorman further states "it is reasonable to assume that averages of annual achieved returns over long time periods will generally converge on the investors' expected returns" and concludes his "risk premium study is based on expectational data, not actual investment returns, and, thus, need not encompass a very long historical time period."[130] Based on those assumptions, Mr. Gorman calculates a range of risk premium estimates of 4.25 percent to 6.72 percent using his Treasury bond analysis and 2.88 percent to 5.57 percent using his A-rated utility bond analysis. Combined with a 3.70 percent projected Treasury yield and a 4.52 percent A-rated utility bond yield estimate, Mr. Gorman's Risk Premium analysis produces results ranging from 7.40 percent to 10.42 percent.[131] To calculate his Risk Premium-based ROE estimate, Mr. Gorman gives 70.00 percent weight to the high end of his risk premium estimates and 30.00 percent to the low end, producing a range of 9.30 percent to 9.70 percent, with a midpoint of 9.50 percent.[132]

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127 *See Ibid.*, Exhibit MPG-13 and MPG-14.
128 *Ibid.*, Exhibit MPG-13 and MPG-14.
129 *Ibid.* at 43.
130 *Ibid,* at 44.
131 4.52% + 2.88% = 7.40%; 4.52% + 5.57% = 10.09%; 3.70% + 4.25% = 7.95%; 3.70% + 6.72% = 10.42%.
132 Gorman Direct, at 47-48. 9.50% = (.15 x 7.40%) + (.15 x 7.95%) + (.35 x 10.09%) + (.35 x 10.42%)

Q. DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING MR. GORMAN'S RISK PREMIUM ESTIMATES AND HOW THEY WEIGH IN HIS OVERALL ROE RECOMMENDATION?

A. Yes, I do. In assessing his DCF analyses, Mr. Gorman relied on his highest two results, effectively discarding four other results that ranged from 7.53 percent to 7.99 percent.[133] Similarly, in assessing his CAPM analysis, he relied on his high-end result, discarding a 7.98 percent estimate.[134] In his Risk Premium analysis, however, Mr. Gorman retained risk premiums that produced ROE estimates below the DCF and CAPM estimates he discarded. Despite their low levels, Mr. Gorman gave those risk premium estimates (producing ROE results of 7.40 percent and 7.95 percent) weights of 30.00 percent in aggregate. Mr. Gorman offers no explanation as to why he would exclude DCF results of 7.99 percent and lower, yet include Risk Premium results of 7.40 percent and 7.95 percent. The effect of including his low Risk Premium results is to reduce his ROE range.

Q WHAT ARE YOUR SPECIFIC CONCERNS WITH MR. GORMAN'S RISK PREMIUM ANALYSIS?

A. I have three concerns with his analysis: (1) Mr. Gorman's method understates the required risk premium in the current market because it ignores an important relationship confirmed by his own data, *i.e.,* that the risk premium is inversely related to the level of interest rates (whether measured by Treasury or utility bond yields); (2) the low end of Mr. Gorman's Risk Premium results is far lower than any ROE authorized since at least 1986 and, as such, has no relevance in estimating EPE's Cost of Equity; and

133 *Ibid.* at 41.
134 *Ibid.* at 53.

(3) Mr. Gorman suggests that a Market/Book ("M/B") ratio of 1.00 is a relevant benchmark for assessing authorized ROEs.[135]

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

A. No. Although Mr. Gorman frames his discussions in the context of authorized returns "sufficient to support market prices that at least exceeded book value,"[136] he does not suggest whether the M/B ratio should exceed some level or even explain the relationship between authorized returns and M/B ratios.

The M/B ratio equals the market value (or stock price) per share, divided by the total common equity (or the book equity) per share. Book value per share is an accounting construct, which reflects historical costs. In contrast, market value per share (*i.e.*, the stock price) is forward-looking, and a function of many variables, including (but not limited to) expected earnings and cash flow growth, expected payout ratios, measures of "earnings quality," the regulatory climate, the equity ratio, expected capital expenditures, and the earned return on common equity.

As discussed below, the notion that book values should be set at a value approaching unity by regulatory commissions has been refuted for many years.

Q. ARE YOU AWARE OF ANY PUBLISHED RESEARCH THAT ADDRESSES THE ISSUE OF MARKET/BOOK ("M/B") RATIOS IN THE CONTEXT OF THE CONSTANT GROWTH DCF MODEL?

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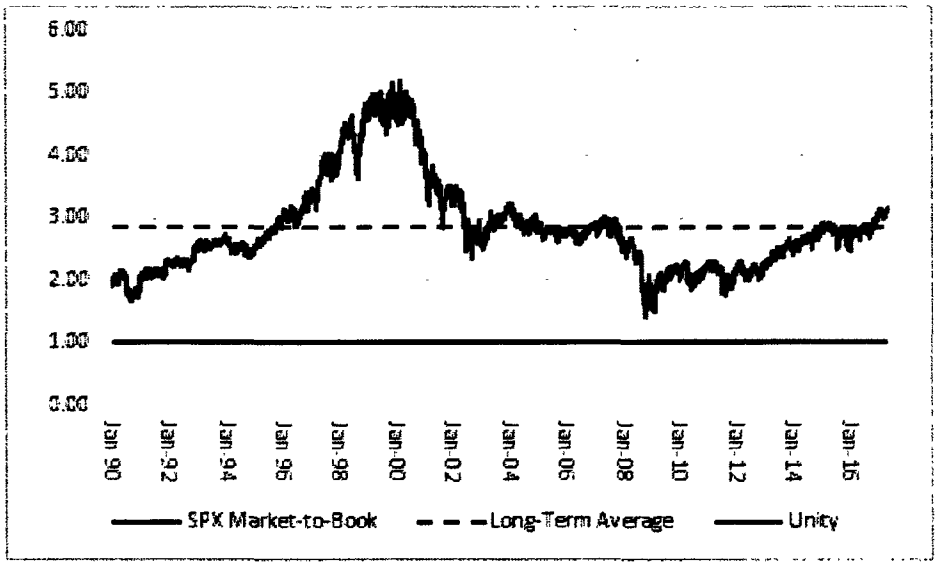
135 Gorman Direct, at 42.
136 *Ibid.*

A. Yes. As Branch *et al.* point out, the M/B ratio generally is greater than or equal to one because the value of the firm as a going concern (price per share) generally exceeds the liquidation value (book value per share) and "...firms having going concern values greater than their liquidation values (most firms) and firms having finite prices (all firms) should have ROE > R> G."[137] Taken from that perspective M/B ratios in excess of unity should not be surprising; if the liquidation value exceeds the market value, the company would be liquidated.

Q. HAVE MARKET/BOOK VALUES GENERALLY EXCEEDED 1.00 FOR THE BROAD EQUITY MARKET?

A. Yes, they have. As Chart 13 (below) demonstrates, since 1990 the average Market/Book ratio for the S&P 500 Index has been 2.85; it has never reached unity.

**Chart 13: S&P 500 Market/Book Ratio Over Time[138]**




137 Branch et al. (2014), at 78. [clarification added] Here, R = the Cost of Equity, and G = growth.
138 Bloomberg Professional.

If investors, over many years and across many companies, felt that the returns they expected had so significantly exceeded the returns they required, they would adjust their requirements.

That finding also is consistent with U.S. Generally Accepted Accounting Principles ("GAAP") and International Financial Reporting Standards, which require firms to carry the value of assets on their books at the historical cost of those assets; only under specific circumstances may the value of certain financial investments be carried at market value.[139] As a result:

> ...given market efficiency, the [M/B] ratio is intrinsically an accounting phenomenon; that is, on first order, [M/B] is determined by how accountants measure book value... If all assets and liabilities were accounted for using unbiased mark-to-market or "fair value" accounting, [M/B] would be equal to unity for all levels of risk....A good example is a pure investment fund where "net asset value" typically equals market value, since accountants apply mark-to-market accounting to these funds....For most other firms, accountants do not mark the net assets involved with operations to market. The application of historical cost accounting, exacerbated by the application of conservative accounting, introduces a difference between price and book value.[140]

Q. ARE YOU AWARE OF RESEARCH FOCUSING ON THE MARKET/BOOK RATIOS OF REGULATED UTILITIES?

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

> Many question the assumption that market price should equal book value, believing that 'the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of unregulated companies.' [141]

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139 Financial Accounting Standards Board Rule 157.

140 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.

141 Charles F. Phillips, The Regulation of Public Utilities – Theory and Practice (Public Utility Reports, Inc., 1993) at 395.

In 1988, Bonbright stated:

> In the first place, commissions cannot forecast, except within wide limits, the effect their rate orders will have on the market prices of the stocks of the Company they regulate. In the second place, whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market. In short, market prices are beyond the control, though not beyond the influence, of rate regulation. Moreover, even if a commission did possess the power of control, any attempt to exercise it ... would result in harmful, uneconomic shifts in public utility rate levels. [142]

As noted by Stewart Myers in 1972:

> In short, a straightforward application of the cost of capital to a book value rate base does not automatically imply that market and book values will be equal. This is an obvious but important point. *If straightforward approaches did imply equality of market and book values, then there would be no need to estimate the cost of capital.* It would suffice to lower (raise) allowed earnings whenever markets were above (below) book [emphasis added].[143]

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

> The third and perhaps most important reason for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors' expected return only when stock price and book value are reasonably similar, that is, when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks understates the investor's expected return when the market-to-book (M/B) ratio of a given stock exceeds unity. This was particularly relevant in the capital market environment of the 1990s and 2000s whose utility stocks are trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates the investor's return when the stock's M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the regulator, that is, a utility's earnings are limited to earnings on a book value rate base.[144]

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142 James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates (Public Utilities Reports, Inc., 1988), at 334.

143 *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.

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

Because the Constant Growth DCF model traditionally used in rate regulation assumes a M/B of unity, it would understate investors' required return rate when market value exceeds book value. It would do so because investors evaluate and receive their returns on the market value of a utility's equity, whereas regulators authorize returns on book common equity. Consequently, the market-based DCF model will result in a total annual dollar return on book common equity equal to the total annual dollar return expected by investors only when market and book values are equal, a rare and unlikely situation.

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

Looking to Mr. Gorman's comparison group, the average capital loss for equity investors would be about 53.00 percent. That loss would not just affect investors, it also would substantially diminish the ability of utilities to attract external capital. To summarize, if regulatory commissions were to set rates with an eye toward moving the M/B ratio toward unity, that practice may well impede the ability to attract the capital required to support its operations, especially in markets during which the M/B ratio for the overall market is significantly in excess of 100.00 percent.

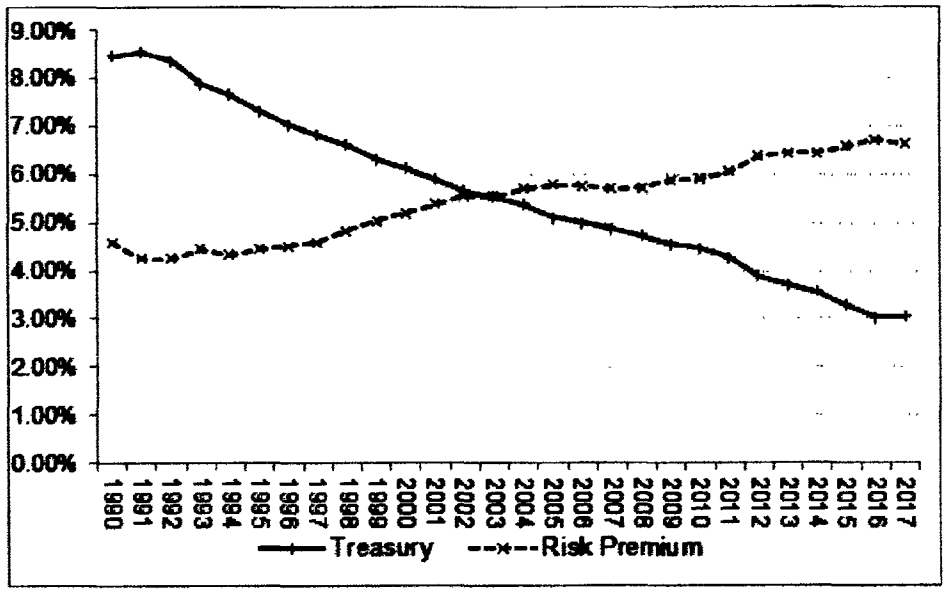
Q. DO YOU HAVE ANY OTHER OBSERVATIONS REGARDING THIS ISSUE?

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

Q. WHAT DID YOUR ANALYSIS OF MR. GORMAN'S RISK PREMIUM ANALYSES INDICATE?

A. Because Mr. Gorman failed to consider the inverse relationship between interest rates and the Equity Risk Premium, his Risk Premium ROE estimates are biased downward. Considering first the Treasury yield-based analysis, I plotted the yields and Risk Premia over the 1986 to 2016 period included in Mr. Gorman's analysis. Chart 14 (below) clearly indicates the inverse relationship between interest rates and the Equity Risk Premium, based on Mr. Gorman's data.

**Chart 14: Mr. Gorman's Treasury Yield-Based Risk Premium Data[145]**




There are several other points made clear in Chart 14. First, the low end of Mr. Gorman's Risk Premium range, 4.25 percent, was observed in the five-year period ending 1991. There is little question that Risk Premium estimates associated with economic environments 26 years ago have little to do with current market conditions.

145 Exhibit MPG-13; based on five-year rolling average.

For example, prior to 2002, Treasury yields exceeded the Risk Premium (on a five-year average basis). As Chart 14 (*see also* Exhibit RBH-15R) demonstrates, since then, the opposite has been true – the Risk Premium has consistently exceeded Treasury yields. It therefore is clear that the low end of Mr. Gorman's range has little, if any, relevance to the current market environment.

The high end of Mr. Gorman's range, 6.72 percent, occurred more recently (for the five-year period ending 2016). In fact, as Exhibit MPG-13 indicates, Mr. Gorman's Equity Risk Premium averaged approximately 6.78 percent over the more recent period from 2015 through 2017.[146] Adding that 6.78 percent Equity Risk Premium to Mr. Gorman's projected Treasury yield of 3.70 percent produces an ROE estimate of 10.48 percent, two basis points below my 10.50 percent recommendation.

Q. HAS THE RISK PREMIUM INCREASED AS TREASURY YIELDS HAVE DECREASED?

A. Yes. The relationship between the five-year average Equity Risk Premium and Treasury yields is very clear. A simple linear regression demonstrates the two are highly related, with a Coefficient of Determination (R-Square) of approximately 96.00 percent (*see* Chart 15, below).[147]

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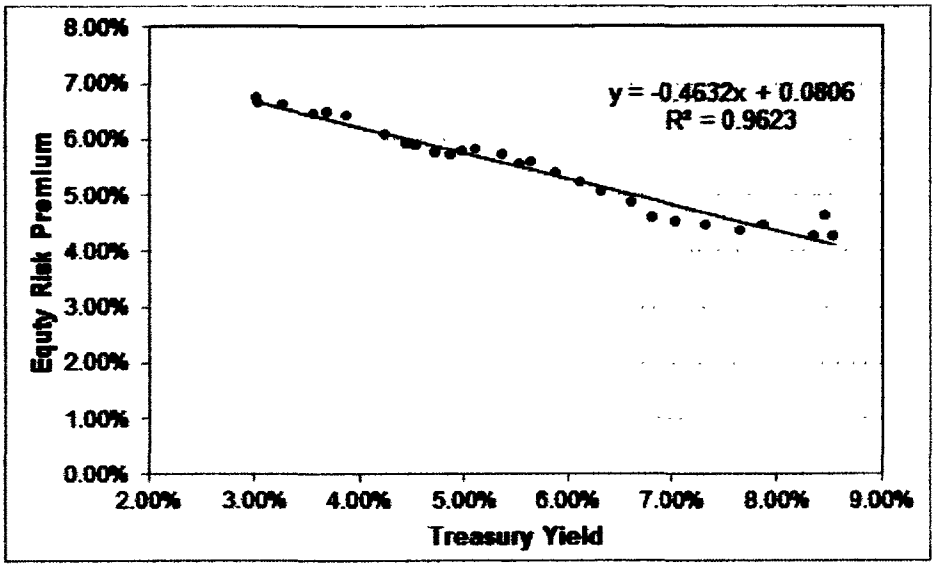
146 Based on Indicated Risk Premium.

147 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].

**Chart 15: Treasury Yield vs. Equity Risk Premium (Five-Year Rolling Average)**[148]




Turning back to Mr. Gorman's data, a simple linear regression analysis using annual (rather than the rolling-average data) demonstrates that for every 100-basis point decrease in Treasury yields, the Equity Risk Premium increases by approximately 44 basis points (*see* Exhibit RBH-16R).[149] Similarly, the Equity Risk Premium increases approximately 45 basis points for every 100-basis point decrease in utility bond yields. Those results are consistent with those reported by Maddox, Pippert, and Sullivan, who determined that the Risk Premium would increase by 37 basis points for every 100-basis point change in the 30-year Treasury yield.[150]

Contrary to Mr. Gorman's position, accounting for additional factors, such as credit spreads (taken from Mr. Gorman's exhibits), does not change the sign, statistical significance, or the magnitude of the slope coefficient.[151]

148 *See* Exhibit RBH-15R. Exhibit MPG-13.
149 Serial correlation is not present.
150 *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.
151 *See* RBH-16R.

Q. WHAT ARE YOUR CONCLUSIONS REGARDING MR. GORMAN'S RISK REMIUM ANALYSIS?

A. Mr. Gorman's use of rolling average estimates does not negate the unreasonableness of his reliance on outdated and unrepresentative data. The market data upon which Mr. Gorman relies are so disconnected in time and substance from the current environment that there is no reasonable basis for his conclusion that 9.40 percent represents a proper Risk Premium-based estimate of the Company's Cost of Equity. Although he argues that more variables are at play, Mr. Gorman's own data strongly support the finding that the Equity Risk Premium is inversely related to interest rates. Taking that finding into account leads to more reasonable ROE estimates.[152]

## E. Financial Integrity

Q. PLEASE BRIEFLY SUMMARIZE MR. GORMAN'S ASSESSMENT OF HIS RECOMMENDATION AS IT AFFECTS MEASURES OF EPE'S FINANCIAL INTEGRITY.

A. Mr. Gorman evaluates the reasonableness of his ROE recommendation by calculating the *pro forma* effect that his recommended ROE would have on two of EPE's key financial ratios with the objective of assessing whether those ratios would still fall within S&P's guideline ranges sufficient for an investment grade rating.[153] Mr. Gorman's *pro forma* analysis develops two ratios: (1) Debt to EBITDA; and (2) Funds From Operations ("FFO") to Total Debt. An important point is that Mr. Gorman's analysis assumes that the company actually will earn the entirety of its authorized ROE on a going-forward basis.

152 *See*, e.g., RBH-16R, which contains a range of results from 9.76 percent to 10.05 percent.
153 *See* Gorman Direct at 54-57.

Q. DO YOU HAVE ANY GENERAL OBSERVATIONS REGARDING MR. GORMAN'S APPROACH TO ASSESSING HIS RECOMMENDATION BY REFERENCE TO *PRO FORMA* CREDIT METRICS??

A. Yes, I do. Before discussing Mr. Gorman's testimony relative to credit metrics, it is helpful to review rating agencies' perspectives (in particular, S&P) regarding their use of credit metrics in ratings determinations. On November 30, 2007, S&P released a statement announcing that electric, gas, and water utility ratings would be "categorized under the business/financial risk matrix used by the Corporate Ratings group".[154] S&P also provided matrices of business and financial risk, based on "Financial Risk Indicative Ratios": FFO/Debt; FFO/Interest; and Total Debt/Capital. In that announcement, S&P noted:

> ...even after we assign a company business risk and financial risk, the committee does not arrive by rote at a rating based on the matrix. The matrix is a guide - - it is not intended to convey precision in the ratings process or reduce the decision to plotting intersections on a graph. Many small positives and negatives that affect credit quality can lead a committee to a different conclusion than what is indicated in the matrix.

On May 27, 2009, S&P once again expanded its matrix, and noted the relative significance of credit metrics to the rating process:

> The rating matrix indicative outcomes are what we typically observe - - but are not meant to be precise indications of guarantees of future rating opinions. Positive and negative nuances in our analysis may lead to a notch higher or lower than the outcomes indicated in the various cells of the matrix... Still, it is essential to realize that the financial benchmarks are guidelines, neither gospel nor guarantees
>
> Moreover, our assessment of financial risk is not as simplistic as looking at a few ratios.[155]

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154 Standard & Poor's Ratings Services, *U.S. Utilities Ratings Analysis Now Portrayed In The S&P Corporate Ratings Matrix*, Nov. 30, 2007, at 2 – 3.
155 Standard & Poor's Ratings Services, *Criteria Methodology: Business Risk/Financial Risk Matrix Expanded,* May 27, 2009.

Later, on September 18, 2012, S&P further expanded its matrix, confirming "[s]till, it is essential to realize that the financial benchmarks are guidelines, neither gospel nor guarantees."[156]

It is clear, therefore, that credit metrics are not relied on in a rote fashion, nor are individual metrics reviewed in isolation, to the exclusion of other information. Rather, those reviews encompass broad assessments of business and financial risk, including factors that are often based on qualitative, not quantitative, discussions with management.

Metrics such as FFO interest coverage and Debt to EBITDA are derived from financial statements, including the Income Statement, Balance Sheet and Cash Flow Statements. For regulated utilities, those ratios are influenced by the overall rate of return allowed by regulatory commissions, which is reflected in the revenue requirement. The metrics therefore are a result of the regulatory process, *i.e.*, the overall rate of return, which in turn is a function of the capital structure (debt and equity ratios), debt cost rate, and the allowed ROE. It is not the other way around. To set a component of the overall rate of return, such as the equity ratio or ROE, based on *pro forma* credit metrics is a circular exercise and one that, in my experience, is atypical of the regulatory process.

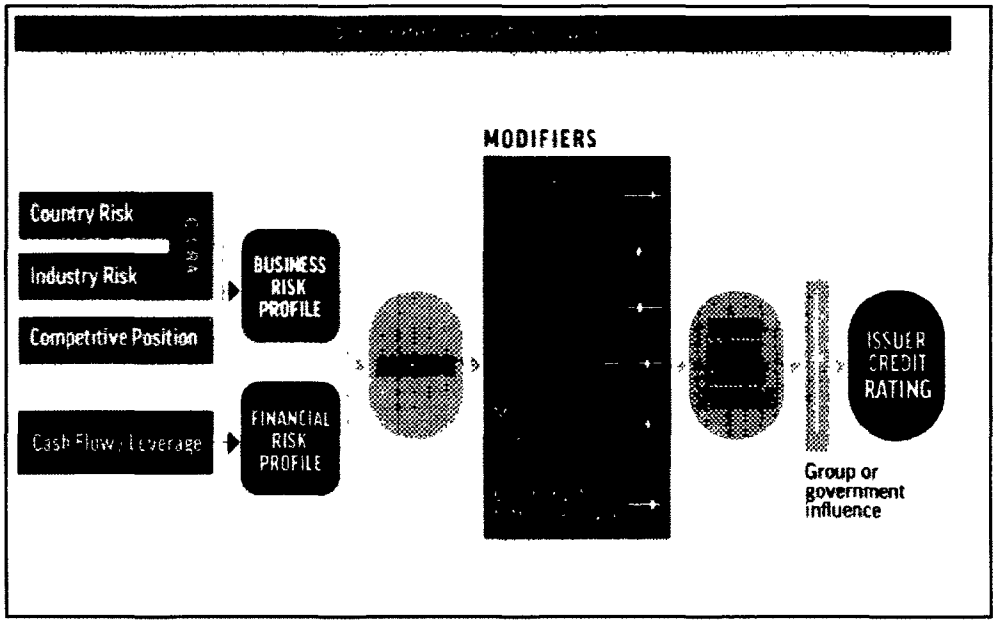
Q. ARE CREDIT RATINGS DETERMINED LARGELY BY THE TYPES OF *PRO FORMA* METRICS THAT MR. GORMAN CALCULATES IN HIS EXHIBIT MPG-19?

A. No, they are not. S&P's ratings process considers a range of both quantitative and qualitative data. As Chart 16 (below) demonstrates, Cash Flow/Leverage considerations are but one element of a broad set of criteria. The principal metrics Mr. Gorman used to

156 Standard & Poor's Ratings Services, *Methodology: Business Risk/Financial Risk Matrix Expanded*, September 18, 2012

assess his recommendation therefore represent only a portion of the factors considered by S&P. Again, a *pro forma* assessment of certain ratios does not address the complex assessments considered by either debt or equity investors.

**Chart 16: Standard & Poor's Corporate Criteria Framework[157]**




Moreover, S&P's assessment does not look to a single period or assume static relationships among variables, as does Mr. Gorman's *pro forma* analysis. Rather, S&P reviews credit ratios "on a time series basis with a clear forward-looking bias."[158] S&P explains that the length of the time period depends on a number of qualitative factors, but generally includes two years of historical data, and three years of projections. Further, the ratios depend on "base case" projections considering "current and near-term economic conditions, industry assumptions, and financial policies."[159] S&P discusses further aspects of its projections and weight given to historical and forecast data, including whether the subject company is undergoing a "transformational event".

157 Standard &Poor's Ratings Services, *Corporate Methodology*, November 19, 2013, at 5.
158 *Ibid.*, at 33.
159 *Ibid.*, at 33.

S&P notes it is the regulatory regime which is one of the most important factors in its bond/credit rating analyses. S&P states[160]:

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

Consequently, even if we were to assume credit determinations are distilled to two *pro forma* metrics, the actual assessment of those metrics is far more complex than Mr. Gorman's analysis suggests.

Q. DO YOU AGREE WITH MR. GORMAN'S ANALYSIS AND CONCLUSION?

A. No, I do not. First, simply maintaining an "investment grade" rating is an inappropriate standard. According to S&P, only 6 of 221 utilities have had below investment grade ratings.[161] EPE must compete for capital within the utility sector in the first instance, and with companies beyond utilities, overall. If Mr. Gorman is of the view that simply maintaining an investment grade rating is sufficient for that purpose, I disagree. In my practical experience raising capital for a regulated utility, I can say firsthand that the competition for capital can be acute. Based on that practical experience, I also can say Mr. Gorman's "investment grade" standard would frustrate the ability of EPE, or any other regulated utility, to raise capital under a variety of market conditions, and at reasonable costs and terms.

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

161 *See* S&P RatingsDirect, The Outlook for U.S. Regulated Utilities Remains Stable on Increasing Capital Spending and Robust Financial Performance, December 16, 2014 at 7-20.

That fundamental concern aside, relying on Mr. Gorman's *pro forma* results to assess the credit supportiveness of any specific ROE or equity ratio is misplaced. In particular, I examined the robustness of using his *pro forma* credit metrics as a threshold benchmark by recreating the results in Mr. Gorman's Exhibit MPG-19. As shown in in Table 8 below, and Exhibit RBH-17R, Mr. Gorman's *pro forma* analysis suggest an ROE as low as 5.50 percent would be sufficient to achieve Debt to EBITDA and FFO to Total Debt ratios in the "Significant" financial risk range identified in Mr. Gorman's analysis. Clearly, a return of 5.50 percent, which is 42 basis points below EPE's cost of long-term debt, is an unrealistic estimate of the Company's Cost of Equity.

**Table 8: Mr. Gorman's Financial Integrity Test Using Alternate Assumptions**[162]

| | Debt / EBITDA | FFO/ DEBT | |
|---|---|---|---|
| S&P Benchmark Ranges | | | |
| "Intermediate" | 2.5x-3.5x | 23%-35% | |
| "Significant" | 3.5x-4.5x | 13%-23% | |
| | | | |
| SCENARIO | Debt / EBITDA | FFO/ DEBT | Implied Financial Risk Rating |
| Gorman as Filed (9.15% ROE and 48.35% Equity Ratio) | 3.59 | 21.41% | Significant |
| 10.50% ROE and 48.35% Equity Ratio | 3.35 | 22.65% | Intermediate / Significant |
| 5.50% ROE and 48.35% Equity Ratio | 4.47 | 18.09% | Significant |
| Company current Financial Risk rating = "Significant" | | | |

As shown in Table 8 (above), a 10.50 percent ROE and 48.35 percent equity ratio also produces coverage ratios within the "Significant" range, similar to Mr. Gorman's recommended ROE.

162 Analysis based on Exhibit MPG-19.

As noted above, Mr. Gorman's analysis also assumes that the Company actually will be able to earn its authorized return and that its Funds From Operations will not be diluted by regulatory lag, additional capital spending, or any of the other factors that dilute earnings and cash flow. Equally important, Mr. Gorman's recommendation falls well below the returns available to other vertically integrated electric utilities.

F. Response to Mr. Gorman's Criticisms of Company Analyses

Q. PLEASE SUMMARIZE MR. GORMAN'S CRITICISMS OF YOUR COST OF EQUITY ANALYSES.

A. Mr. Gorman asserts my estimated ROE is overstated and should be rejected because (1) my Constant Growth DCF results are based on unsustainably high growth rates; (2) my Multi-Stage DCF is based on an unsustainable GDP growth estimate; (3) my CAPM is based on "inflated" estimates of the MRPs; and (4) my Bond Yield Plus Risk Premium is based on an "inflated" utility Equity Risk Premium.[163] Lastly Mr. Gorman disagrees with my assessment of the Company's risk regarding trading volume and liquidity.[164]

Q. ARE THE GROWTH RATES USED IN YOUR CONSTANT GROWTH DCF ANALYSIS "UNSUSTAINABLY HIGH"?

A. No, they are consistent with the average consensus growth rates (5.54 percent) Mr. Gorman relies on in his Constant Growth DCF model.[165] Consequently, his assertion is inconsistent with his own testimony and is without merit.

163 Gorman Direct, at 58.
164 Gorman Direct, at 60-63.
165 Gorman Direct, at 31; Exhibits MPG-5 and MPG-6.

Q. PLEASE RESPOND TO MR. GORMAN'S ASSERTION THAT YOUR MULTI-STAGE DCF LONG-TERM GROWTH RATE IS INCONSISTENT WITH OTHER CONSENSUS ESTIMATES OF LONG-TERM GDP GROWTH.

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

In his Multi-Stage DCF analysis, Mr. Gorman cites to projections from the U.S. Energy Information Administration ("EIA"), Congressional Budget Office, and other sources including the U.S. Social Security Administration ("SSA") and suggests that the terminal growth rate in my Multi-Stage DCF analysis is too high.[166] Because of the inherent uncertainty in economic projections, the SSA provides three sets of projections, including intermediate, low-cost, and high-cost scenarios.[167] My long-term growth estimate falls well within the range of the "scenarios" that the SSA considers.[168]

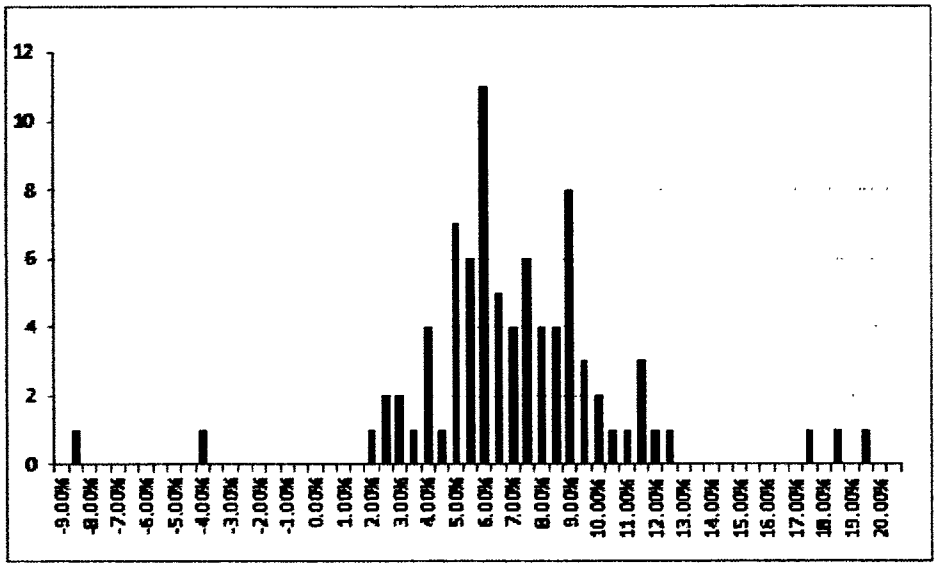
Mr. Gorman's 4.20 percent long-term sustainable growth rate also is inconsistent with market measures cited elsewhere in his testimony. For example, Mr. Gorman does not consider the use of long-term historical data to develop his terminal growth rate, yet he relies on long-term historical data in his CAPM analyses. Even the data on which

166 Gorman Direct at 38-39, 64.
167 For the SSA's projections, the low-cost scenario reflects higher economic growth and interest rates.
168 Tables V.B1 and V.B2 of the 2016 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 2.70 percent for the GDP Price Index, and Real GDP Growth, respectively, over the period 2025 through 2085. Combined, those projections indicate nominal GDP growth of approximately 5.70 percent.

Mr. Gorman relies to perform his analysis undermines his claim that a 4.20 percent estimate of long-term GDP growth is reasonable. According to Duff & Phelps (which provides the data Mr. Gorman relies on to estimate the historical Market Risk Premia), the arithmetic average historical capital appreciation rate is 7.70 percent, which is substantially higher than Mr. Gorman's 4.20 percent estimate of long-term GDP growth.[169]

Historically, average annual GDP growth rates as low as 4.20 percent have been infrequent. When measured over five-year periods, average annual GDP growth exceeded 4.20 percent in 71 of 83 periods. The same conclusion holds when growth is measured over ten-year periods; the average annual GDP growth rate was greater than 4.20 percent in 68 of 78 periods (see Charts 17 and 18 below).

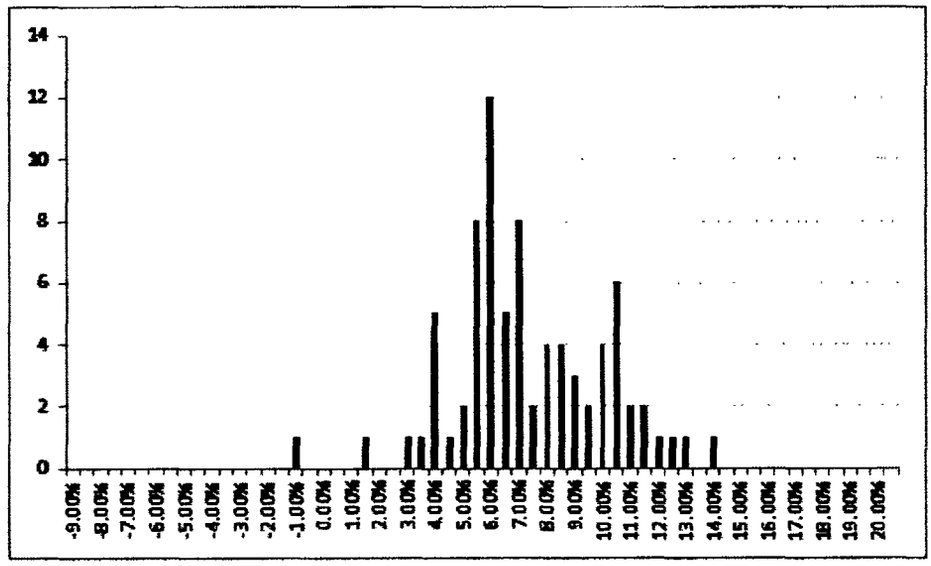
**Chart 17: Average Annual GDP Growth Measured over Five-Year Periods[170]**




169 Duff & Phelps, 2016 Valuation Handbook: Guide to Cost of Capital at 2-4. Even if we were to consider the geometric mean, the historical capital appreciation rate exceeds Mr. Gorman's 4.20 percent estimate; Mr. Gorman notes on page 75 of his testimony that the long-term geometric average growth rate is 5.80 percent.

170 Bureau of Economic Analysis.

**Chart 18: Average Annual GDP Growth Measured over Ten-Year Periods**[171]




Q. WHAT IS YOUR RESPONSE TO MR. GORMAN'S ASSERTION THAT YOUR PAYOUT RATIO ASSUMPTION IS UNREASONABLE?

A. Mr. Gorman argues there is "no basis" to expect the dividend payout ratio of the proxy group to increase or change between growth stages of the model.[172] I disagree. There are several reasons why management may adjust dividend payments in the near term, such as increases or decreases in expected capital spending. Because we cannot say those factors will remain constant forever, it is reasonable to assume over time, payout ratios will revert to their long-term average.

Several of Mr. Gorman's proxy companies recently have discussed target payout ratios that are highly consistent with my 66.88 percent. For example, in late 2016 and early 2017 investor relations presentations, Alliant Energy, American Electric Power, NorthWestern Corporation, and Xcel Energy noted target payout ratios in the range of

171 Bureau of Economic Analysis.
172 Gorman Direct, at 70.

60.00 percent to 70.00 percent.[173] Because my projected payout ratio is consistent with both historical experience and industry expectations, it is entirely appropriate.

Q. PLEASE RESPOND TO MR. GORMAN'S CRITICISM OF YOUR TERMINAL P/E MULTI-STAGE DCF APPROACH.

A. As discussed earlier, the terminal P/E ratio is consistent with the fundamental assumptions underlying the Constant Growth DCF method. If Mr. Gorman believes his Constant Growth DCF method produces reasonable results, he should also believe holding the P/E value constant in my Multi-Stage model produces reliable results. Mr. Gorman cannot support the low Constant Growth DCF estimates that result from abnormally high P/E ratios while criticizing the same assumption in my Multi-Stage DCF model.

Q. PLEASE SUMMARIZE MR. GORMAN'S CONCERNS WITH YOUR CAPM ANALYSIS.

A. Mr. Gorman's concerns with my CAPM analysis lie primarily with my MRP estimates.[174] In particular, Mr. Gorman states that my 12.94 percent and 13.96 percent projected returns on the market are "inflated."[175]

Q. WHAT IS YOUR RESPONSE TO MR. GORMAN?

A. I disagree. The market return estimates presented in my Direct Testimony, which Mr. Gorman asserts are "inflated,"[176] represent the approximately 49$^{th}$ and 50$^{th}$ percentile of actual returns observed from 1926 to 2016. Moreover, because market returns

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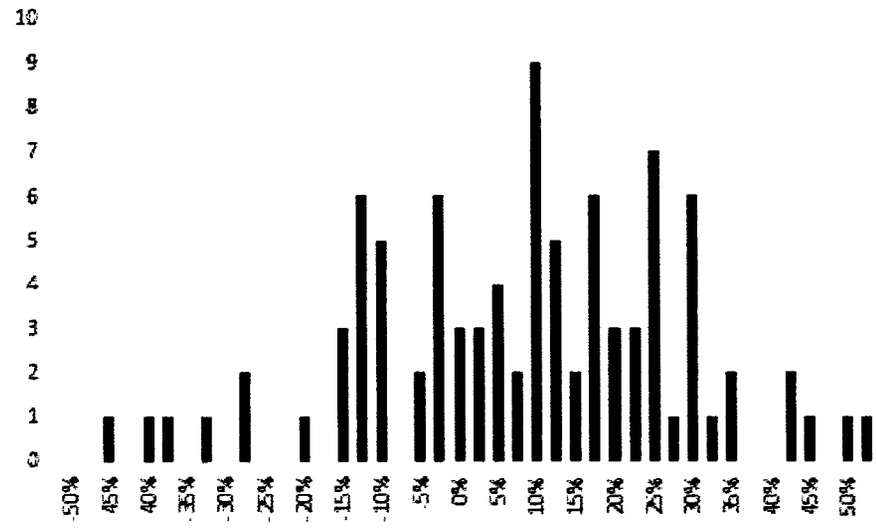
173 Alliant Energy, Wells Fargo Pipeline, MLP and Utility Symposium, Investor Presentation, December 7, 2016; American Electric Power, Evercore ISI Utility CEO Retreat, January 12-13, 2017; NorthWestern Energy, Investor Update, Investor Presentation, December 12, 2016; and Xcel Energy, Evercore ISI Conference, Investor Presentation, January 12-13, 2017.
174 *Ibid.*, at 73.
175 *Ibid.*, at 75.
176 *Ibid.*

historically have been volatile, my market return estimates are statistically indistinguishable from the long-term arithmetic average market data on which Mr. Gorman relies.[177]

Mr. Gorman also asserts the Market Risk Premia estimated from my projected market returns are "inflated."[178] I therefore gathered the annual Market Risk Premia reported by Morningstar and produced a histogram of the observations (recall that Mr. Gorman includes historical data among the methods he uses to estimate the MRP). The results of that analysis, which are presented in Chart 19, demonstrate MRPs of at least 11.21 percent (the high end of the range of the MRP estimates in my Direct Testimony) occur approximately half of the time.

**Chart 19: Frequency Distribution of Observed Market Risk Premia, 1926 - 2016[179]**




177 *See* Morningstar, Inc., 2016 Ibbotson Stocks, Bonds, Bills and Inflation Classic Yearbook, Appendix A at 3-5; 2017 SBBI Yearbook (Preview Version), at 17. Even if we were to look at the standard error, my estimate is well within one standard error of the long-term average.
178 Gorman Direct, at 58.
179 Exhibit RBH-18R.

Q. PLEASE SUMMARIZE MR. GORMAN'S CRITICISMS OF YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. Mr. Gorman's concern with my Bond Yield Plus Risk Premium analysis is my "contention" of a "simplistic inverse relationship" between the Equity Risk Premium and interest rates is not supported by academic research.[180] He argues that the relevant factor explaining changes in the Equity Risk Premiums is the change to equity risk relative to debt risk, not changes in interest rates alone.[181]

Q. WHAT IS YOUR RESPONSE TO MR. GORMAN'S POSITION?

A. Regarding the inverse relationship between the Equity Risk Premium and interest rates, several academic studies support my findings.[182] Further, as explained above, Mr. Gorman's own data clearly demonstrate the inverse relationship between the two. Mr. Gorman may disagree with the premise, but empirical results based on his data support my position (*see* Exhibit RBH-15R).

Q. DID YOU PERFORM ANY ADDITIONAL ANALYSES TO ADDRESS MR. GORMAN'S CONCERN REGARDING THE EFFECT OF EXPECTED MARKET VOLATILITY AND INTEREST RATE ENVIRONMENTS ON YOUR RESULTS?

A. Yes, I did. Although for the reasons discussed above I continue to believe the Risk Premium is properly specified, I performed an additional analysis to specifically include the effect of equity market volatility and credit spreads (*see* Exhibit RBH-19R). As with

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180 Gorman Direct, at 77.
181 *Ibid.*, at 78.
182 *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.

my original Bond Yield Plus Risk Premium analysis, I defined the Risk Premium as the dependent variable and the prevailing 30-year Treasury yield as an independent variable. I then included two additional explanatory variables: (1) the VIX (the Chicago Board Options Exchange's one-month volatility index, which is a common measure of volatility); and (2) the credit spread between the 30-year Treasury yield and the Moody's Baa Utility Index (as a measure of incremental risk).[183] In both instances, the statistically significant inverse relationship between Treasury yields and the Risk Premium remains, and the resulting ROE estimates are generally consistent with those of my original Bond Yield Plus Risk Premium analysis.[184]

Lastly, applying Mr. Gorman's projected 3.70 percent 30-year Treasury yield to the alternative Bond Yield Plus Risk Premium Analysis discussed above produces a more reasonable ROE estimate of 10.01 percent relative to Mr. Gorman's 9.15 percent recommendation (*see* Exhibit RBH-19R).[185]

Q. PLEASE SUMMARIZE MR. GORMAN'S CRITICISMS OF YOUR TRADING VOLUME AND LIQUIDTY RISK ANALYSIS.

A. Mr. Gorman's concern is that EPE's trading volume is "within the range established by the industry over the last several years."[186] Further, he estimates EPE's liquidity risk premium to be only one basis point (that is, that there essentially is no liquidity risk), and asserts that this is "not enough to support a recommended return on equity 12.5 basis points above the midpoint of the range."[187]

Q. WHAT IS YOUR RESPONSE TO MR. GORMAN'S POSITION?

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183 Mr. Gorman notes on page 27 of his testimony that his proxy group has an average Moody's credit rating of Baa1. *See* Exhibit MPG-4.
184 *See* Exhibit RBH-19R.
185 Mr. Gorman uses a 3.70% projected Treasury yield in his risk premium analysis. *See* Gorman Direct, at 47.
186 Gorman Direct, at 61.

A. First, Mr. Gorman's own data demonstrates that EPE's stock is less liquid relative to the proxy group. Mr. Gorman asserts that EPE's average weekly volume as a percent of total shares outstanding is "well within the range of the proxy group" and is not abnormal. To test that assertion, I calculated the percentile in which EPE's trading volume (presented in Exhibit MPG-20) falls relative to Mr. Gorman's proxy group to determine whether EPE was within the proxy group range. As shown in Table 9 below, that percentile decreases as the time period increases (from one week to three years). Although EPE falls in the middle of the proxy group on a one-week basis, on a three-year basis, EPE's trading volume falls in the bottom 5th percentile, clearly at the lower end of the range. On that basis alone, I disagree that the Company's trading volume is consistent with the proxy group.

**Table 9: EPE's Trading Volume Relative to Mr. Gorman's Proxy Group[188]**

| | Avg Weekly Volume/ Shares Out (%) | | | | |
|---|---|---|---|---|---|
| | One Week | One Month | Three Month | One Year | Three Year |
| Proxy Average | 2.71 | 2.73 | 2.88 | 2.86 | 3.02 |
| Proxy Median | 2.51 | 2.62 | 2.82 | 2.92 | 3.02 |
| EPE | 2.73 | 2.31 | 2.29 | 2.39 | 2.26 |
| Percentile | 55.20% | 24.80% | 18.30% | 15.10% | 5.40% |

Second, Mr. Gorman states the bid-ask spread reflects the liquidity of a company's stock, citing the CFA curriculum, which explains that bid-ask "spreads are wider for riskier and less liquid securities."[189] Mr. Gorman goes on to state that "an abnormally wide bid-ask spread will impact the expected return of the security holder."[190] To determine whether EPE's bid-ask spread as a percentage of share price of 0.19 percent was "abnormal", I calculated the standard deviation of Mr. Gorman's proxy group in

187 Gorman Direct, at 63.
188 Exhibit MPG-20.
189 *Ibid.* at 62.

Exhibit MPG-20, (approximately 0.06 percent). EPE's bid-ask spread as a percentage of share price of 0.19 percent is more than two standard deviations above the proxy group average, indicating that it is a statistical outlier. From that perspective, therefore, Mr. Gorman's data demonstrate that EPE's bid-ask spread is "abnormally" wider than his proxy group.

Q. HAVE YOU ALSO REVIEWED THE RELATIONSHIP BETWEEN THE BID/ASK SPREAD AND SIZE?

A. Yes, I have. Mr. Gorman's Exhibit MPG-20 measures size by reference to market capitalization. Assuming market capitalization is a measure of liquidity (for example, that institutional traders are more likely to take positions among larger companies), we can assess the bid/ask spread as a function of liquidity by plotting the spread relative to market capitalization. As Chart 20 (below) demonstrates, the relationship between the two is non-linear, such that the bid/ask spread increases at an increasing rate as market capitalization falls.[191]

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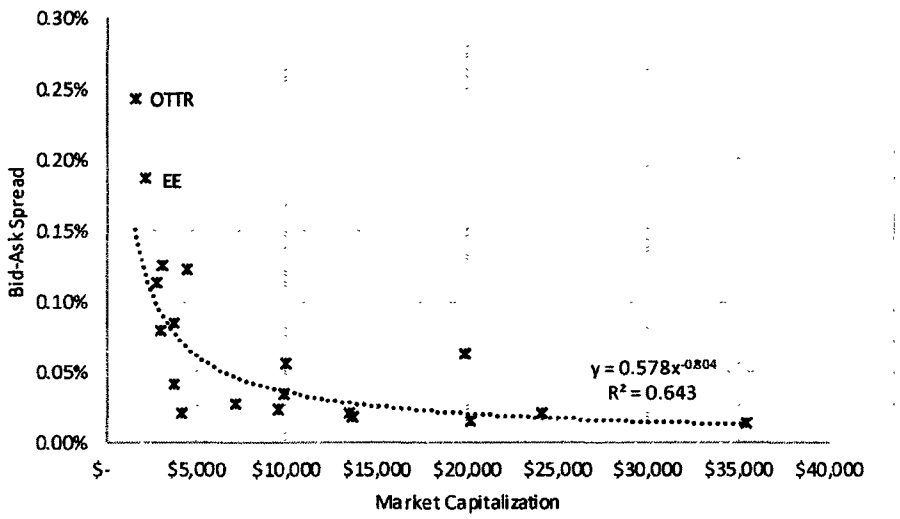
190 *Ibid.*

191 To be clear, finding the best-fitting function is not a matter of "data mining". The analysis assumes Mr. Gorman's data; it is not looking for data to fit the hypothesis. Rather, the analysis is meant to find the form of equation that best explains the relationships among Mr. Gorman's data.

**Chart 20: Bid-Ask Spread and Market Capitalization[192]**




Although a linear function arrives at the same conclusion – that the bid-ask spread increases as market capitalization falls – it does not provide the same level of explanatory value.[193] That finding is particularly telling, given that the two companies with the highest bid-ask spread (Otter Tail Power and EPE) are far smaller than Mr. Gorman's other proxy companies.

Q. WHAT DOES THAT ANALYSIS TELL US ABOUT SIZE AND THE ILLIQUIDITY PREMIUM?

A. It simply confirms liquidity is an important concern and that it is particularly acute for smaller companies. Again, that confirmation is based on Mr. Gorman's data.

Q. TURNING NOW TO MR. GORMAN'S POSITION THAT THE LIQUIDITY PREMIUM IS ABOUT ONE BASIS POINT, DO YOU AGREE WITH HIS CONCLUSION?

192 Exhibit MPG-20.
193 The R-Square of the linear model is 0.32, indicating about one-half of the explanatory value of the exponential function provided in Chart 20.

A. No, his approach and conclusion do not fully capture the costs and risks associated with illiquidity. Mr. Gorman's approach is akin to a flotation cost adjustment, in which the net proceeds of a stock issuance are measurably and definitively less than the gross proceeds. Illiquidity, on the other hand, presents risks and uncertainties beyond direct costs. For example, as a stock becomes less liquid, the ability to execute a sell order becomes constrained. That constraint may be seen as reducing the options to sell. Because options have value, eliminating, or even restricting an option represents a cost, which may be seen as a measure of the illiquidity premium. Valuing an option is considerably more complex than Mr. Gorman's calculation, in large measure because it considers multiple, dynamic factors (such as the likely holding period, the underlying required return, and expected volatility). None of those important parameters are captured in Mr. Gorman's approach.

Other research has measured the cost of illiquidity by developing multi-factor forms of the CAPM. In those models, the additional factors measure different forms of illiquidity, and the interaction of a given stock's liquidity with that of the overall market. Research also suggests that as the market become constrained, the flight to liquid investments increases, thereby increasing the premium required for less liquid securities.[194]

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE ISSUE OF LIQUIDITY RISK, AND MR. GORMAN'S ASSERTION THAT ITS EFFECT IS BUT ONE BASIS POINT?

A. First, there seems to be no disagreement that illiquidity is a risk, and that it is considered by investors. The issue is one of degree. Mr. Gorman's data quite clearly demonstrate that the cost of liquidity increases exponentially as size decreases. Because it is among

194 See, for example, Viral V. Acharyaa and Lasse Heje Pedersen, *Asset pricing with liquidity risk*, Journal of Financial Economics, Volume 77, Issue 2, August 2005

the smallest utilities, it follows that the cost of illiquidity is particularly high for EPE. On its face, that finding casts considerable doubt on Mr. Gorman's suggestion the return premium required for illiquidity is essentially zero (one basis point).

Second, Mr. Gorman's method of calculating the one basis point adjustment overlooks the many issues associated with illiquidity. Intuitively, the risk associated with not being able to sell shares in a normal market is meaningful; it is especially so in turbulent markets. Clearly, investors would require a premium to assume the risk of not being able to sell a security as market conditions deteriorate. That restricted option certainly has a cost greater than one basis point.

Lastly, simply because it is difficult to precisely estimate the liquidity premium does not mean it does not exist (as Mr. Gorman's one basis point adjustment suggests). Rather, it is reasonable to conclude that illiquidity represents a meaningful risk, which provides further support for my ROE recommendation.

## VII. RESPONSE TO DIRECT TESTIMONY OF CITY WITNESS LAWTON

Q. PLEASE PROVIDE A SUMMARY OF MR. LAWTON'S TESTIMONY AND RECOMMENDATIONS.

A. Mr. Lawton recommends an ROE of 9.00 percent, relying primarily on his DCF results, while employing the risk premium, the CAPM approaches as a check on the reasonableness of his DCF results.[195] Table 10 below summarizes Mr. Lawton's analytical results and his overall recommendation.

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195 Lawton Direct, at 10, 35.

**Table 10: Summary of Mr. Lawton's Analytical Results and ROE Recommendation**

| Methodology | Range |
|---|---|
| Constant Growth DCF | 9.01 – 9.13% |
| Two-Stage DCF | 9.02 – 9.21% |
| Risk Premium | 9.60 – 9.63% |
| CAPM | 8.28 – 8.49% |
| ECAPM | 8.85 – 8.93% |
| Recommendation | 9.00% |

Q. WHAT ARE THE PRINCIPAL AREAS OF DISAGREEMENT BETWEEN YOU AND MR. LAWTON?

A. As a preliminary matter, I disagree that 9.00 percent is a reasonable estimate of the Company's Cost of Equity. As Mr. Lawton notes, the average authorized ROE in 2016 was 9.74 percent.[196] Mr. Lawton has not provided any evidence that the Company is materially less risky than other electric utilities to warrant an ROE that is 74 basis points below what the average electric utility was authorized.

That point aside, there are several areas in which Mr. Lawton and I disagree, including: (1) the effect of capital market conditions on the Company's Cost of Equity; (2) the reasonableness of Mr. Lawton's Constant Growth DCF results; (3) the application of the CAPM and ECAPM, in particular the Market Risk Premium; (4) the application of his Risk Premium analysis; and (5) Mr. Lawton's financial integrity assessment.

A. <u>The Effect of Current Capital Market Conditions on the Cost of Capital for EPE</u>

Q. DOES MR. LAWTON ADDRESS CURRENT MARKET CONDITIONS IN HIS TESTIMONY?

196 Lawton Direct, at 16.

A. Yes. Mr. Lawton states that monetary policy is expected to continue the accommodative track and interest rates are expected to remain low.[197] Mr. Lawton further states that regulatory authorities "have established equity returns below 10 percent."[198]

Q. WHAT IS YOUR RESPONSE TO MR. LAWTON ON THOSE POINTS?

A. As noted earlier, although interest rates are low relative to historical levels, authorized ROEs for electric utilities have not followed suit (*see* Chart 2 above). As also discussed earlier in my response to Ms. Winker, market data indicate that investors expect interest rates to increase over the next year, which presents additional risk for utility investors.

## B. Constant Growth DCF model

Q. DOES MR. LAWTON GIVE HIS CONSTANT GROWTH DCF RESULTS ANY WEIGHT IN ARRIVING AT HIS 9.00 PERCENT ROE RECOMMENDATION?

A. Yes. Mr. Lawton relies primarily on his DCF results, which "fall in the 9.0% range", and averages his low and high risk premium approaches (i.e., 8.39 percent midpoint of his CAPM results and 9.62 percent midpoint of his risk premium results) to corroborate his 9.00 percent recommendation.[199]

Q. DO YOU BELIEVE THAT MR. LAWTON'S CONSTANT GROWTH DCF RESULTS ARE REASONABLE ESTIMATES OF THE COMPANY'S COST OF EQUITY?

A. No. My principal concern is Mr. Lawton's reliance on the DCF model in developing his 9.00 percent recommendation. As a practical matter, Mr. Lawton's mean and median Constant Growth DCF results are 9.13 percent and 9.01 percent, respectively (for his

197 *Ibid,* at 11.
198 Lawton Direct, at 16.
199 Lawton Direct, at 35.

forecasted EPS growth rate-only scenario).[200] Those results are lower than any reasonable and observable measure of the Company's Cost of Equity. Not only are those results well below ROE determinations recently made by the Commission, the high end of that range is below approximately 90.00 percent of the ROE authorizations for electric utilities in any regulatory jurisdiction since at least 1980.[201]

Q. PLEASE DESCRIBE MR. LAWTON'S APPLICATION OF THE MULTI-STAGE DCF MODEL.

A. Mr. Lawton's Multi-Stage DCF analysis, which is intended to address instances in which "more than one growth rate estimate is appropriate,"[202] involves discounting dividends over two stages: (1) a four year "first growth stage" in which Value Line's projected dividend growth rate is used; and (2) a 146-year second stage during which the earnings growth rate from Mr. Lawton's Constant Growth DCF analysis is used.[203]

Q. WHAT SPECIFIC CONCERNS DO YOU HAVE REGARDING MR. LAWTON'S MULTI-STAGE DCF MODEL?

A. First, I note that there is an error in the calculation of future cash flows for WEC Energy Group ("WEC") in Mr. Lawton's Schedule DJL-8.[204] Correcting that error increases the two-stage ROE estimate for WEC from 9.79 percent to 10.58 percent, which increases the mean two-stage ROE to 8.87 percent; the mean adjusted two-stage ROE for his proxy group increases to 9.27 percent.

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200 *See* Schedule DJL-7.
201 Regulatory Research Associates.
202 Lawton Direct, at 29.
203 Lawton Direct, at 29.
204 Mr. Lawton's formula for WEC in years 5-150 incorrectly refers to the long-term growth rate for Xcel Energy, Inc. I have made this correction in Exhibit RBH-20R.

That aside, I disagree with the timing of the projected cash flows, and the use of an implied constant dividend payout ratio through the forecast horizon of the model. Lastly, for the reasons discussed in response to Ms. Winker, I disagree that dividend growth is appropriate in this context.

Q. ARE THERE OTHER FORMS OF THE MULTI-STAGE DCF MODEL THAT CAN ADDRESS THOSE SHORTCOMINGS?

A. Yes, a common form of the Multi-Stage DCF model is presented by Ibbotson,[205] a source on which Mr. Lawton relies for the purpose of his CAPM analysis.[206] Ibbotson's form of the Multi-Stage DCF model focuses on cash flow growth rates over three distinct stages. As with the Constant Growth form of the DCF model, the Multi-Stage form defines the Cost of Equity as the discount rate that sets the current price equal to the discounted value of future cash flows. The model sets the subject company's stock price equal to the present value of future cash flows received over three "stages". In the first two stages, "cash flows" are defined as projected dividends. In the third stage, "cash flows" equal both dividends and the expected price at which the stock is sold at the end of the period (i.e., the "terminal price"). The terminal price is based on the Gordon model, which defines the price as the expected dividend divided by the difference between the Cost of Equity (i.e., the discount rate) and the long-term expected growth rate. In essence, the terminal price represents the present value of the remaining "cash flows" in perpetuity.

Q. HOW DOES MR. LAWTON'S MULTI-STAGE DCF MODEL COMPARE TO THE VERSION DISCUSSED ABOVE?

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205 Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 50.
206 Lawton Direct, at 50.

A. Mr. Lawton's model contains several assumptions that individually and in aggregate produce unreasonably low ROE estimates. In particular, Mr. Lawton's model assumes a year-end cash flow convention and a constant payout ratio based on the current level of dividends for his proxy group, over the model's 150-year horizon. In addition, Mr. Lawton's model assumes a terminal growth beginning in year five based on an earnings growth rate projection that actually ends in the fifth year of his study period.

Moreover, whereas Ibbotson's model allows for payout ratios to change over time, Mr. Lawton implicitly assumes that payout ratios will remain unchanged over the remaining 146-year projection period (he does so by assuming there is no change in the dividend after the fifth year other than growth in earnings). The effect of Mr. Lawton's assumption that current comparatively low payout ratios (compared to the historical average) will continue in perpetuity is to reduce projected dividend payments, and therefore, the calculated ROE.

Q. HOW DOES MR. LAWTON'S ASSUMPTION REGARDING THE TIMING OF THE DIVIDEND PAYMENT SHIFT HIS MULTI-STAGE DCF MODEL RESULTS DOWNWARD?

A. Mr. Lawton's Multi-Stage DCF analysis assumes that the first dividend is paid one year in the future. Given that Mr. Lawton's proxy group dividend payments are evenly distributed throughout the course of a given year, assuming (as Mr. Lawton has done) that the entire dividend is paid at the end of that year essentially defers the timing of those cash flows. As with Mr. Filarowicz's multi-stage DCF analysis, a more reasonable approach would be to assume that the cash flow is received in the middle of the year, such that half the quarterly dividend payments occur prior to the assumed dividend payment date (i.e., the "mid-year convention"). As Exhibit RBH-20R demonstrates, correcting Mr. Lawton's two-stage DCF model for the mid-year convention increases his

results by approximately 16 basis points, from 9.02 percent and 9.27 percent median and mean, respectively, to 9.18 percent and 9.43 percent median and mean, respectively (adjusted results).

### C. Application of the Capital Asset Pricing Model

Q. PLEASE SUMMARIZE THE DIFFERENCES BETWEEN YOU AND MR. LAWTON IN THE APPLICATION OF YOUR RESPECTIVE CAPM ANALYSES.

A. The most significant area of disagreement between Mr. Lawton and me is the determination of the appropriate Market Risk Premium.

Q. WHAT MARKET RISK PREMIUM DOES MR. LAWTON ASSUME IN HIS CAPM ANALYSIS?

A. Mr. Lawton assumes a Market Risk Premium of 7.55 percent, which is equal to the average of the arithmetic mean of the difference between (1) the long-term historical return on the broader market and the total return on long-term Treasury bonds, and (2) the difference between the long-term historical return on the broader market and the current yield on 30-Year U.S. Treasury bonds.[207] As discussed below, I disagree with Mr. Lawton's use of mostly historical (as opposed to forward-looking) data in the calculation of Market Risk Premium, and with his use of the total return on long-term government bonds in the context of that calculation.

Q. WHAT IS YOUR RESPONSE TO MR. LAWTON'S RELIANCE ON THE LONG-TERM HISTORICAL MARKET RISK PREMIUM?

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207 *Ibid.*, at 34.

A. First, although Mr. Lawton includes an "historical" Market Risk Premium and a "more current" Market Risk Premium, his "more current" Market Risk Premium still relies on historical returns for large companies.[208] It is important to consider the implications of substantially relying on the historical return data, as Mr. Lawton has done, on the reasonableness of the CAPM results. The relevant analytical issue in the application of the CAPM is to ensure that all three components of the model (i.e., the risk-free rate, Beta coefficient, and the Market Risk Premium) are consistent with market conditions and investor perceptions. The ex-ante Market Risk Premium estimates used in my CAPM analysis, as described in my Prefiled Direct Testimony, specifically address that concern.[209]

Q. PLEASE BRIEFLY COMMENT ON MR. LAWTON'S USE OF THE TOTAL RETURN ON LONG-TERM GOVERNMENT BONDS IN HIS CALCULATION OF THE HISTORICAL MARKET RISK PREMIUM.

A. Morningstar's historical Market Risk Premium is calculated based on the difference between the arithmetic average return on large company stocks and the income-only return on long-term government bonds (producing an estimated risk premium of 7.00 percent).[210] Mr. Lawton, however, calculates the risk premium as the difference between the total return on those two asset classes, implying a risk premium of 6.00 percent.[211]

As Morningstar points out, the total return on a security is composed of three components: (1) the income return; (2) capital gains (or capital losses, if the value of the security falls); and (3) reinvestment return.[212] The income return is generally defined as

208 *Ibid.*, at 33-34.
209 Hevert Direct, at 46-47.
210 Morningstar, Inc., 2015 Classic Yearbook Market Results for Stocks, Bonds, Bills, and Inflation, at 152.
211 Lawton Direct, at 33.
212 Morningstar, Inc., 2015 Ibbotson Classic Yearbook at 91.

the coupon, or interest rate on the security, which does not change over the life of the security. In contrast, the value of the security rises or falls as interest rates change, resulting in uncertain capital gains. As such, the income return is the only "riskless" component of the total return. Consequently, it is the income-only portion of the return, as opposed to the total return, that should be used in calculating the MRP. As shown in Exhibit RBH-21R relying on Mr. Lawton's "more current" Market Risk Premium of 9.10, increases the average results of his CAPM analysis 1.11 percent (111 basis points) to 9.49 percent. In addition, his average ECAPM results increase by 1.22 percent (122 basis points) to 10.14 percent. While somewhat higher, the adjusted CAPM result in particular is below a reasonable estimate of the Company's Cost of Equity. The adjusted ECAPM result is on the lower end of my range of reasonableness.

D. Risk Premium Analysis

Q. PLEASE DESCRIBE THE RISK PREMIUM ANALYSIS PERFORMED BY MR. LAWTON.

A. Mr. Lawton's risk premium analysis compares authorized returns for electric utilities to the 30-year Treasury yield over the period 1981 to 2016. Using the spot yield and a three-month average 30-year Treasury yield, his analysis estimates a risk premium-based cost of equity of 9.60 percent to 9.63 percent.

Q. WHAT IS YOUR CONCERN WITH MR. LAWTON'S RISK PREMIUM ANALYSIS?

A. My concern is with Mr. Lawton's application of historical Treasury yields in his risk premium analysis.

As discussed in my response to Mr. Filarowicz's risk premium analysis, the Cost of Equity is forward-looking; as such it would have been more appropriate for Mr. Lawton to apply consensus forecasts for the 30-year Treasury yields. Blue Chip Financial

Forecasts projects the 30-year Treasury yield to steadily rise from their current approximately 2.90 percent level to 3.70 percent over the next six calendar quarters.[213] Using the 3.38 percent average near-term forecast of the 30-year Treasury yield over that period (Q3 2017 through Q4 2018), Mr. Lawton's Risk Premium analysis would produce an ROE estimate of 9.86 percent.[214] That result is much more consistent with recently authorized returns for electric utilities.

E. Financial Integrity

Q. PLEASE BRIEFLY SUMMARIZE MR. LAWTON'S ASSESSMENT OF HIS RECOMMENDATION AS IT AFFECTS MEASURES OF EPE'S FINANCIAL INTEGRITY.

A. Mr. Lawton evaluates the reasonableness of his ROE recommendation by calculating the *pro forma* effect that his recommended ROE would have on three of EPE's key financial ratios with the objective of assessing whether those ratios would support the Company's Baa1 bond rating from Moody's.

As I explained in my response to Mr. Gorman, in addition to specific credit metrics, ratings agencies such as S&P and Moody's considers a range of both quantitative and qualitative data in their ratings process.

Q. DO YOU AGREE WITH MR. LAWTON'S ANALYSIS AND CONCLUSION?

A. No, I do not. As Schedule DJL-11 shows, my 10.50 percent recommendation also produces financial metrics within Moody's Guidelines for Baa Bonds. As with Mr. Gorman's analysis, an ROE as low as 5.50 percent, which is below the Company's

213 *Blue Chip Financial Forecast,* Vol. 36, No. 7, July 1, 2017, at 2.
214 5.19% + (-0.40) x (3.38% - 6.59%) + 3.38% = 9.86%. *See* Schedule DJL-10 for Mr. Lawton's Risk Premium methodology.