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APPLICATION OF CENTERPOINT	§	BEFORE THE STATE OFFICE
ENERGY HOUSTON ELECTRIC, LLC	§	OF
FOR AUTHORITY TO CHANGE RATES	§	ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

ANN E. BULKLEY

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

July 12, 2024

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LIST OF EXHIBITS

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym	Definition
Avangrid	Avangrid Inc.
BVPS	Book value per share
BYRP	Bond Yield Risk Premium
CAGR	Compound annual growth rate
CAPM	Capital Asset Pricing Model
CenterPoint Houston	CenterPoint Energy Houston Electric, LLC
CEI South	CenterPoint Energy Indiana South
CNG	Connecticut Natural Gas Corporation
Commission	Public Utility Commission of Texas
Company	CenterPoint Energy Houston Electric, LLC
CNP	CenterPoint Energy, Inc.
CPUC	California Public Utilities Commission
DCF	Discounted Cash Flow
DCRF	Distribution cost recovery factor
DPS	Dividends per share
ECAPM	Empirical Capital Asset Pricing Model
EMH	Efficient Market Hypothesis
EPS	Earnings per share
Eversource Energy	Eversource
FERC	Federal Energy Regulatory Commission
FFO	Funds from operations
Filarowicz Direct Testimony	Direct Testimony of Mark Filarowicz, PUCT, Docket No. 56211, June 26, 2024

GLOSSARY OF ACRONYMS AND DEFINED TERMS

FOMC	Federal Open Market Committee
Fitch	Fitch Ratings
GDP	Gross domestic product
Global Settlement	2003 Global Analysts Research Settlement
Gorman Direct Testimony	Direct Testimony and Exhibits of Michael P. Gorman, PUCT, Docket No. 56211, June 19, 2024
ICC	Illinois Commerce Commission
I&E	Bureau of Investigation and Enforcement of the Pennsylvania PUC
Maine PUC	Maine Public Utilities Commission
Mac Mathuna Direct Testimony	Direct Testimony of Breandan T. Mac Mathuna, PUCT, Docket No. 56211, June 19, 2024
Montana PSC	Montana Public Service Commission
Moody's	Moody's Investors Service
NCUC	North Carolina Utilities Commission
NYPSC	New York Public Service Commission
Panel A	Dr. Woolridge's proxy group
Panel B	Ms. Bulkley's proxy group
Pennsylvania PUC	Pennsylvania Public Utility Commission
Perry Direct Testimony	Direct Testimony and Exhibits of Lisa V. Perry, PUCT, Docket No. 56211, June 19, 2024
P/E	Price-to-earnings
PG&E	PG&E Corporation
PUCT	Public Utility Commission of Texas
PURA	Public Utilities Regulatory Authority of Connecticut
Risk Premium	Bond Yield Risk Premium

GLOSSARY OF ACRONYMS AND DEFINED TERMS

ROE	Rate of Return on Equity
RRA	Regulatory Research Associates
SCANA	SCANA Corporation
SCG	Southern Connecticut Gas Company
S&P	Standard & Poor's
TCOS	Transmission cost of service
TDU	Electric transmission and distribution utility
Treasury Bond Approach	Mr. Gorman's Risk Premium analysis reflecting utility equity risk premia based on authorized electric utility returns relative to yields on 30-year Treasury bonds
UK	United Kingdom
Utility Bond Approach	Mr. Gorman's Risk Premium analysis reflecting utility equity risk premia based on authorized electric utility returns relative to yields on Moody's A-rated utility bonds
Value Line	*Value Line Investment Survey*
WACC	Weighted Average Cost of Capital
Wall Street Analysts	*Yahoo! Finance, Zacks,* and S&P
Woolridge Direct Testimony	Direct Testimony and Exhibits of J. Randall Woolridge Ph.D., PUCT, Docket No. 56211, June 19, 2024
Zacks	*Zacks Investment Research*

1   **REBUTTAL TESTIMONY OF ANN E. BULKLEY**

2   **I.   INTRODUCTION**

3   **Q: ARE YOU THE SAME ANN E. BULKLEY THAT FILED DIRECT**

4   **TESTIMONY IN THIS PROCEEDING?**

5   A.   Yes. I am filing this rebuttal testimony before the Public Utility Commission of

6   Texas ("PUCT" or "Commission") on behalf of CenterPoint Energy Houston

7   Electric, LLC ("CenterPoint Houston" or the "Company").

8   **Q: WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

9   A.   The purpose of my rebuttal testimony is to testimony is to respond to the direct

10   testimonies of Mark Filarowicz on behalf of the Rate Regulatory Division of the

11   PUCT,[1] Michael P. Gorman on behalf of Texas Industrial Energy Consumers,[2]

12   Dr. J. Randall Woolridge on behalf of the Texas Coast Utilities Coalition,[3] Ms. Lisa

13   V. Perry on behalf of Walmart Inc.,[4] and Breandan T. Mac Mathuna on behalf of

14   Houston Coalition of Cities,[5] regarding the just and reasonable return on equity

15   ("ROE") and the appropriate capital structure for the Company. I have not

16   attempted to respond to every argument made by these witnesses, and the fact that

17   I may not have responded to any particular argument or statement made by these

18   witnesses does not indicate my agreement with that argument or statement.

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[1] Direct Testimony of Mark Filarowicz,("Filarowicz Direct") (Jun. 26, 2024).

[2] Direct Testimony of Michael P. Gorman ("Gorman Direct") (Jun. 19, 2024).

[3] Direct Testimony of J. Randall Woolridge Ph.D. ("Woolridge Direct") (Jun. 19, 2024).

[4] Direct Testimony of Lisa V. Perry ("Perry Direct") (Jun. 19, 2024).

[5] Direct Testimony of Breandan T. Mac Mathuna ("Mac Mathuna Direct") (Jun. 19, 2024).

1 Q: **ARE YOU SPONSORING ANY EXHIBITS IN SUPPORT OF YOUR**

2 **DIRECT TESTIMONY?**

3 A. Yes. My analyses and recommendations are supported by the data presented in

4 Exhibit AEB-R-1 through Exhibit AEB-R-17.

5 Q: **HAVE YOU UPDATED THE COST OF EQUITY ANALYSES YOU**

6 **PRESENTED IN YOUR DIRECT TESTIMONY TO REFLECT CURRENT**

7 **MARKET CONDITIONS?**

8 A. Yes. As discussed herein, I have updated my cost of equity analyses based on

9 market data through June 30, 2024. These results provide additional support for

10 the Company's proposed ROE of 10.40 percent. In addition, while the analytical

11 results of cost of equity estimation models provide a starting point, I continue to

12 base my conclusion regarding the reasonableness of the Company's proposal not

13 only on the results of multiple cost of equity models, but also other factors,

14 including capital market conditions, the capital attraction and comparable return

15 standards, and Company-specific risks.

16 Q: **HOW IS THE REMAINDER OF YOUR REBUTTAL TESTIMONY**

17 **ORGANIZED?**

18 A. The remainder of my rebuttal testimony is organized as follows:

19   • Section II provides a summary and overview of my rebuttal testimony and
20   the important factors to be considered in establishing the authorized ROE
21   for the Company.

22   • Section III discusses the changes in capital market conditions since my
23   direct testimony, their effect on the cost of equity, and the comparable
24   return.

25   • Section IV provides the update to my cost of equity analyses based on
26   market data as of June 30, 2024.

1   • Section V provides my response to Mr. Filarowicz regarding his cost of
2   equity analyses and ROE recommendation.

3   • Section VI provides my response to Mr. Gorman regarding his cost of equity
4   analyses and ROE recommendation.

5   • Section VII provides my response to Dr. Woolridge regarding his cost of
6   equity analyses and ROE recommendation.

7   • Section VIII provides my response to comments offered by Ms. Perry
8   regarding the cost of equity.

9   • Section IX provides my response to Mr. Filarowicz, Mr. Gorman, and
10   Mr. Mac Mathuna regarding their capital structure analyses and
11   recommendations.

12   **II.   SUMMARY OF ANALYSES AND CONCLUSIONS**

13   **Q: WHAT FACTORS SHOULD BE CONSIDERED IN EVALUATING THE**

14   **RESULTS OF THE COST OF EQUITY ANALYSES AND ESTABLISHING**

15   **THE AUTHORIZED ROE?**

16   A.   The primary factors that should be considered are: (1) the importance of providing

17   a return that is comparable to returns on alternative investments with commensurate

18   risk; (2) the need for a return that supports a utility's ability to attract needed capital

19   at reasonable terms; (3) the effect of current and expected capital market conditions;

20   and (4) achieving a reasonable balance between the interests of investors and

21   customers.

22   **Q: WHAT ARE THE ROE RECOMMENDATIONS OF THE OTHER**

23   **WITNESSES IN THIS PROCEEDING?**

24   A.   Figure AEB-R-1 summarizes the results of the cost of equity analyses presented by

25   the other witnesses in this proceeding and their final ROE recommendations. As

26   shown, the ROE recommendations of the other witnesses in this proceeding range

27   from 9.50 percent to 9.75 percent.

1 **Figure AEB-R-1: Summary of the Results of the Cost of Equity Analyses**
2 **and ROE Recommendations**

	Mr. Filarowicz	Mr. Gorman	Dr. Woolridge
Constant Growth DCF	9.98%	9.29% - 11.10%	9.90% - 10.10%
Multi-Stage DCF	9.51%	9.30% - 9.49%	n/a
Combined DCF	9.75%	n/a	n/a
CAPM	n/a	9.75% - 10.93%	8.55%
Risk Premium	10.23%	9.60%	n/a
ROE Recommendation	9.75%	9.50%	9.50%

3 Ms. Perry did not conduct any cost of equity models or any analysis that compares

4 CenterPoint Houston to a proxy group of risk comparable companies. Ms. Perry's

5 testimony simply states, without any analysis to support her positions, that the

6 Company's requested ROE is excessive due to the customer impacts of the overall

7 revenue requirement, the ratemaking structures, and previously authorized ROEs

8 by this Commission in different market conditions, without consideration of

9 whether or not the ROEs were the result of settlements or litigation.

10 **Q: WHAT ARE YOUR KEY CONCLUSIONS AND RECOMMENDATIONS**

11 **REGARDING THE APPROPRIATE ROE AND CAPITAL STRUCTURE**

12 **FOR CENTERPOINT HOUSTON?**

13 A. Nothing in the testimonies of Mr. Filarowicz, Mr. Gorman, Dr. Woolridge,

14 Ms. Perry, or Mr. Mac Mathuna has caused me to change my conclusions and

15 recommendations. Based on my review of their respective testimonies, my key

16 conclusions regarding a reasonable ROE and capital structure for the Company in

17 this proceeding are as follows:

1   **Cost of Equity**

2   • Updating the cost of equity estimation models that I relied upon in my direct
3   testimony to reflect the most current data demonstrates that the cost of
4   equity has increased since the filing of my direct testimony, and the model
5   results continue to support the Company's proposed ROE in this proceeding
6   of 10.40 percent.

7   • As discussed in detail herein, while I disagree with various elements of the
8   cost of equity analyses of Mr. Filarowicz, Mr. Gorman, and Dr. Woolridge,
9   as well as their respective comments regarding my cost of equity analyses,
10   the most significant flaw is that their ROE recommendations are
11   inconsistent with the changes in capital market conditions since the
12   Company's last rate proceeding in 2019.

13   • The following changes in market conditions since the Company's last rate
14   proceeding in 2019 support an increase in the cost of equity:

15   o The federal funds rate has increased approximately 295 basis points.

16   o The yield on the 30-year Treasury bond has increased approximately
17   160 basis points.

18   o The yield on the Moody's Baa-rated utility bond has increased
19   approximately 135 basis points.

20   o Core inflation is also higher by approximately 100 basis points.

21   • Despite the undeniable significant increase in the cost of equity
22   demonstrated by current market conditions, the recommendations offered
23   by Mr. Gorman and Dr. Woolridge represent only a *10 basis point* increase
24   to the Company's existing authorized ROE, and Mr. Filarowicz's
25   recommendation represents only a *35 basis point increase*.

26   o While there is some speculation about potential changes in interest
27   rates in the future, current macroeconomic data demonstrates
28   strength in the economy, which has resulted in the Federal Reserve
29   Open Market Committee ("FOMC") maintaining interest rates at
30   these higher levels.

31   o There is no indication that the FOMC has intentions of returning
32   interest rates to the levels that existed when the Company's last rate
33   case was determined, meaning it is reasonable to expect that the cost
34   of equity for the Company is currently higher and will remain higher
35   in the near future than its currently authorized ROE.

36   o Therefore, the ROE recommendations of Mr. Filarowicz,
37   Mr. Gorman, and Dr. Woolridge cannot be reconciled with the
38   differences in market conditions since the Company's last rate
39   proceeding.

1   •   Mr. Filarowicz states that he considers the results of all three of his cost of
2   equity analyses; however, he provides no explanation or justification for
3   disregarding the result of his Conventional Risk Premium analysis.

4   •   As filed, the average result of Mr. Filarowicz's three cost of equity models
5   is 9.91 percent, or approximately 15 basis points higher than his ROE
6   recommendation.

7   •   When Mr. Filarowicz's cost of equity models have been updated such that
8   the underlying data reflects a consistent time period, and are also corrected
9   to be consistent with Staff's prior approaches to estimating the cost of
10   equity, the resulting average cost of equity is 10.34 percent – which is
11   generally consistent with the Company's proposed ROE of 10.40 percent.

12   •   The results of Mr. Gorman's cost of equity analyses in this proceeding
13   clearly demonstrate a significant increase in the cost of equity as compared
14   to the results of his same cost of equity analyses in the Company's last rate
15   proceeding.

16   o   The average result of Mr. Gorman's Discounted Cash Flow ("DCF")
17   analyses has increased by over 125 basis points, yet inexplicably,
18   Mr. Gorman suggests that his DCF analyses in the current
19   proceeding indicate a fair return that is *15 basis points lower* than
20   his testimony in the Company's last rate proceeding.

21   o   The average result of Mr. Gorman's Capital Asset Pricing Model
22   ("CAPM") analyses has increased over 225 basis points; however,
23   as discussed herein, Mr. Gorman now disavows his high end CAPM
24   estimate in the current proceeding. Nonetheless, the fair return that
25   Mr. Gorman suggests from his CAPM estimate has increased 105
26   basis points since the Company's last rate proceeding.

27   o   The average result of Mr. Gorman's Risk Premium analyses has
28   increased 30 basis points.

29   o   Overall, the average of Mr. Gorman's DCF, CAPM, and Risk
30   Premium results has increased 154 basis points from 8.40 percent in
31   the Company's 2019 proceeding to 9.94 percent in the current
32   proceeding.

33   o   *Without making any adjustment to Mr. Gorman's cost of equity*
34   *analyses*, the results of his analyses clearly demonstrate over a 110
35   basis point increase in the cost of equity.

36   •   The mean results of each of Mr. Gorman's cost of equity analyses are well
37   above his recommended ROE of 9.50 percent, demonstrating that his
38   recommended ROE does not reflect the current investor-required return on
39   equity using his own analyses.

40   •   Reasonable adjustments to Mr. Gorman's cost of equity analyses and
41   assuming the same methodology that he has applied to establish his
42   recommended ROE range in this proceeding, produce a recommended

1   range of results from 10.20 percent to 10.40 percent, with a midpoint of
2   10.30 percent.

3   • Dr. Woolridge suggests that he gives primary weight to the results of his
4   DCF analysis; however, his arbitrary use of "judgment" results in an
5   understatement of the cost of equity.

6   o Dr. Woolridge's selection of the growth rate used in his DCF
7   analyses biases the results of those analyses downward.

8   o Dr. Woolridge's arbitrary shift in the weightings that he applies to
9   his DCF and CAPM results as compared with other proceedings in
10   which he has testified results in him placing more weight on the
11   lower CAPM results, thereby understating the cost of equity and his
12   ROE recommendations.

13   • Dr. Woolridge's CAPM analysis results in an estimated cost of equity that
14   is well below the average authorized ROE for all electric utilities that he
15   references from 2010 through 2023.

16   o Recent market tests demonstrate that investors would not consider
17   Dr. Woolridge's CAPM result a reasonable return on an investment
18   in utility stocks.

19   o Regardless, Dr. Woolridge's CAPM results demonstrate a
20   significant increase in the cost of equity as compared with the results
21   of his CAPM when he filed testimony in the Company's last rate
22   proceeding.

23   o Nonetheless, given the unreasonable result of Dr. Woolridge's
24   CAPM analysis, it should not be given any weight by the
25   Commission.

26   • When appropriately adjusted, the average of Dr. Woolridge's DCF and
27   CAPM analyses is 10.55 percent, which clearly supports the Company's
28   proposed ROE of 10.40 percent.

29   • Ms. Perry has not evaluated the investor-required return on equity using any
30   of the traditional cost of equity estimation methodologies.

31   • Rather, Ms. Perry simply relies on a list of recently authorized ROEs
32   without considering several key factors:

33   o the comparability of the companies used in her data set;

34   o the effect of differences in market conditions at the time that
35   regulatory commissions across the country made their
36   determinations in the proceedings she has reviewed; and,

37   o the equity ratios that were authorized in those proceedings.

1 **Capital Structure**

2 • The Company's projected equity ratio is reasonable.

3   o The Company's proposed equity ratio is well within the range of
4   actual equity ratios of the utility subsidiaries of the proxy group
5   companies, and in fact, well below the average equity ratio.

6   o While I disagree with Mr. Gorman, Mr. Mac Mathuna, and
7   Dr. Woolridge that the Company's proposed capital structure should
8   be compared to the average equity ratios of the proxy group holding
9   companies, if that analysis is performed correctly, it also
10   demonstrates that the Company's proposed equity ratio is well
11   below the proxy group average equity ratios, and is therefore
12   reasonable.

13   o Moreover, setting aside my disagreement with Mr. Gorman and
14   Mr. Mac Mathuna that the Company's proposed capital structure
15   should be compared to the average equity ratios of the proxy group
16   holding companies, their own analyses of the holding companies in
17   the proxy group demonstrate that the Company's requested equity
18   ratio is reasonable.

19 • Mr. Filarowicz has not adequately supported his recommendation that the
20   Company's equity ratio be maintained.

21   o Mr. Filarowicz has not compared his recommended equity ratio to
22   the operating utilities of the proxy group to assess the financial risk
23   of CenterPoint Houston relative to the companies in his proxy
24   group, and there is no basis for him not doing so, even though he
25   recommends the Commission not consider such an analysis.

26   o As presented in Exhibit AEB-13 of my direct testimony, I
27   appropriately conducted such an analysis, and Mr. Filarowicz
28   indicated no opposition to that analysis.

29 • Mr. Gorman's capital structure and ROE recommendations are inconsistent
30   with the approach he has taken in recent prior cases, recommending a capital
31   structure that is lower than the proxy group average without any adjustment
32   to his ROE recommendations.

33   o Mr. Gorman's lack of recognition of the change in financial risk
34   resulting from higher leverage, without adjusting the equity return,
35   serves to understate his overall return to equity in this proceeding.

36   o Importantly, however, the approach that Mr. Gorman has considered
37   previously clearly demonstrates that the Company's proposed
38   equity ratio of 44.9 percent is reasonable.

39 • Mr. Mac Mathuna's comparison of the Company's currently authorized and
40   proposed equity ratios to its parent's actual equity ratio in 2023 and
41   projected equity ratio over the next few years is not relevant.

1   o In this proceeding, the cost of capital is being estimated for the
2   Company on a stand-alone basis, consistent with the principles
3   established by the U.S. Supreme Court in its *Hope* and *Bluefield*
4   decisions.

5   o Mr. Mac Mathuna's analysis also does not take into consideration
6   that this Commission has required ring-fencing provisions for the
7   Company that are structured to insulate the Company from the
8   financial risk of its parent and the Company's other affiliates.

9   It is appropriate to consider all of these factors when estimating a reasonable range

10   of the investor-required cost of equity and the recommended ROE for the Company.

11   **Q:** **WHAT IS YOUR RECOMMENDED ROE FOR CENTERPOINT**

12   **HOUSTON IN THIS PROCEEDING?**

13   A. Considering the analytical results of the cost of equity models, current and

14   prospective capital market conditions, and the Company's regulatory, business, and

15   financial risk relative to the proxy group, I recommend that an ROE in the range

16   10.00 to 11.00 percent is reasonable, and within that range, an ROE of 10.60

17   percent. As discussed in the Direct Testimony of Company witness Jason M. Ryan,

18   taking into consideration the affordability for customers of the overall revenue

19   requirement, the Company is requesting an ROE of 10.40 percent.

20   **Q:** **WITH RESPECT TO THE CAPITAL STRUCTURE, WHAT OPTIONS**

21   **ARE MOST OFTEN CONSIDERED BY UTILITY REGULATORY**

22   **COMMISSIONS WHEN SETTING A REGULATED UTILITY'S CAPITAL**

23   **STRUCTURE FOR RATEMAKING PURPOSES?**

24   A. Regulatory commissions most often rely on the operating company's actual or

25   projected capital structure per the financial books and records of the company when

26   this capital structure is reflective of the way the company is operated and it is

27   generally consistent with industry norms. In contrast, the Commission most often

1   relies on a hypothetical capital structure that is more highly leveraged than the

2   average authorized capital structures in other regulatory jurisdictions and is also

3   more leveraged than the actual capital structures of the proxy group companies.

4 Q: **HOW DOES THE COMPANY'S CAPITAL STRUCTURE AFFECT ITS**

5   **OVERALL RISK PROFILE?**

6 A. The Company's proposed capital structure is composed of 55.10 percent debt and

7   44.90 percent equity, which is much more highly leveraged than the average of the

8   utility operating subsidiaries of the proxy group companies.   As shown in

9   Exhibit AEB-14 to my Direct Testimony, the mean and median equity ratios of the

10   proxy group companies are 52.4 percent and 52.8 percent, respectively, and the

11   high end of the range is 61.2 percent. As leverage increases, a company has less

12   financial flexibility due to the need to service the fixed payments associated with

13   its debt. This reduced financial flexibility results in greater financial risk for the

14   company due to its lower overall coverage ratios.   Further, higher leverage

15   increases the risk to equity holders, which are the last claimants on company assets.

16 Q: **IS   THE   COMPANY'S   REQUESTED   CAPITAL   STRUCTURE**

17   **REASONABLE?**

18 A. While within the range of the actual capital structures of the operating utilities of

19   the proxy group companies, the Company's proposed capital structure is

20   significantly more highly leveraged than the average of the operating utilities of the

21   proxy group. As a result, the relatively greater leverage in the Company's capital

22   structure results in the Company having greater overall financial risk than the proxy

23   group companies, which is a consideration in terms of my recommended ROE for

24   the Company in this proceeding.

1   Q: **IS THE COMPANY'S PROPOSED COST OF LONG-TERM DEBT**

2   **REASONABLE?**

3   A.   Yes. As shown in Exhibit AEB-15 to my Direct Testimony, the Company's cost

4   of debt for each issuance is consistent with the market cost of debt at the time of

5   issuance and is thus reasonable.

6   III.   **CAPITAL MARKET CONDITIONS AND A COMPARABLE RETURN**

7   Q: **DO CHANGES IN CAPITAL MARKET CONDITIONS SINCE THE**

8   **COMPANY'S LAST RATE PROCEEDING CONTINUE TO INDICATE AN**

9   **INCREASE IN THE COST OF EQUITY?**

10   A.   Yes. Changes in long-term bond yields since the Company's 2019 rate proceeding

11   demonstrate an increase in the cost of capital. Specifically, as shown in

12   Figure AEB-R-2, while the federal funds rate is consistent with the level as of the

13   end of the analytical period that I relied on in my direct testimony, both the yields

14   on the 30-year Treasury bond and Moody's A-rated utility bond have increased.

15   The core inflation rate has declined since that time but remains well above the

16   Federal Reserve's target level of 2 percent. Additionally, the federal funds rate, 30-

17   year Treasury bond yield, Moody's A-rated utility bond yield and core inflation

18   rate are each significantly higher currently than at the time the Commission

19   approved the settlement in the Company's last case. This demonstrates that the

20   cost of equity for CenterPoint Houston is significantly higher today than at the time

21   of the Company's last rate proceeding.

1 **Figure AEB-R-2: Change in Market Conditions Since CenterPoint Houston's Last**
2   **Rate Proceeding[6]**

Docket No.	Date	Federal Funds Rate	30-Day Avg of 30-Year Treasury Bond Yield	30-Day Avg Moody's Baa-Rated Utility Bond Yield	Core Inflation Rate	Auth'd ROE
49421: Company Rebuttal	5/17/2019	2.39%	2.92%	4.52%	2.38%	9.40%
56211: Company Direct	1/31/2024	5.33%	4.19%	5.67%	3.87%	
56211: Company Rebuttal	6/30/2024	5.33%	4.50%	5.88%	3.41%	
Change from May-19 to June-24:		*2.94%*	*1.58%*	*1.36%*	*1.03%*	

3 **Q: DO   THE   ROE   RECOMMENDATIONS   OF   THE   STAFF   AND**

4   **INTERVENOR WITNESSES IN THIS PROCEEDING APPROPRIATELY**

5   **REFLECT THE CHANGE IN MARKET CONDITIONS SINCE THE**

6   **COMPANY'S 2019 RATE PROCEEDING?**

7 A.   No. Despite the *higher* cost of equity demonstrated by current market conditions,

8   Mr. Filarowicz is recommending an ROE of 9.75 percent, which is only a 35 basis

9   point increase from the Company's currently authorized ROE of 9.40 percent, while

10   both Mr. Gorman and Dr. Woolridge recommend an ROE of 9.50 percent, which

11   represents an even smaller increase of only 10 basis points above the Company's

12   currently authorized ROE.

13   The recommendations of these witnesses clearly do not fully reflect the effect

14   of the changes in market conditions since the Company's last rate proceeding when

15   it was authorized a 9.40 percent ROE. As shown in Figure AEB-R-2, all of the

---

[6] St. Louis Federal Reserve Bank; Bureau of Labor Statistics; Bloomberg Professional.

1   macroeconomic indicators are significantly higher than at the time of the

2   Company's last rate proceeding.

- The Federal funds rate has *increased* approximately 295 basis points.

4
5   • The yield on the 30-year Treasury bond has *increased* approximately 160
     basis points.

6
7   • The yield on the Moody's A-rated utility bond has *increased* approximately
     135 basis points.

8   • Core inflation is higher by approximately 100 basis points.

9   The recommendations offered by Mr. Filarowicz, Mr. Gorman and Dr. Woolridge,

10   which reflect *only a 10 to 35 basis point increase* in the Company's ROE, are

11   inconsistent with the overall change in market conditions. Further, these

12   recommendations are inconsistent with the historical relationship between interest

13   rates and authorized equity returns that is reflected in both Mr. Filarowicz's and

14   Mr. Gorman's own risk premium analyses.

15   Q: **DO YOU AGREE WITH MR. GORMAN THAT UTILITY VALUATIONS**

16   **REMAIN "ROBUST?"**[7]

17   A.   No. In fact, Mr. Gorman's review of the price-to-earnings ("P/E") ratio for utilities

18   proves otherwise. For example, as shown on Exhibit MPG-2, page 1, the average

19   P/E ratio for electric utilities was 15.46 in 2023, declining from an average of 20.29

20   in 2022. Furthermore, the 22-year average P/E ratio estimated by Mr. Gorman was

21   17.00. Therefore, given the recent decline in utility valuations, the P/E ratio for

22   electric utilities in 2023 was below the long-term average, indicating that utility

23   valuations have not remained "robust" as suggested by Mr. Gorman.

---

[7] Gorman Direct at 10:3-5.

1   Additionally, as shown in Figure AEB-R-3, utility stocks have significantly

2   underperformed the broader market since January 1, 2023, with the proxy group

3   stocks experiencing a decline of approximately 11.84 percent as compared to the

4   increase in the Standard & Poor's ("S&P") 500 of approximately 42.22 percent.

5   **Figure AEB-R-3: Relative Performance of CenterPoint Houston's Proxy**
6   **Group and the S&P 500, January 1, 2023 – June 30, 2024[8]**
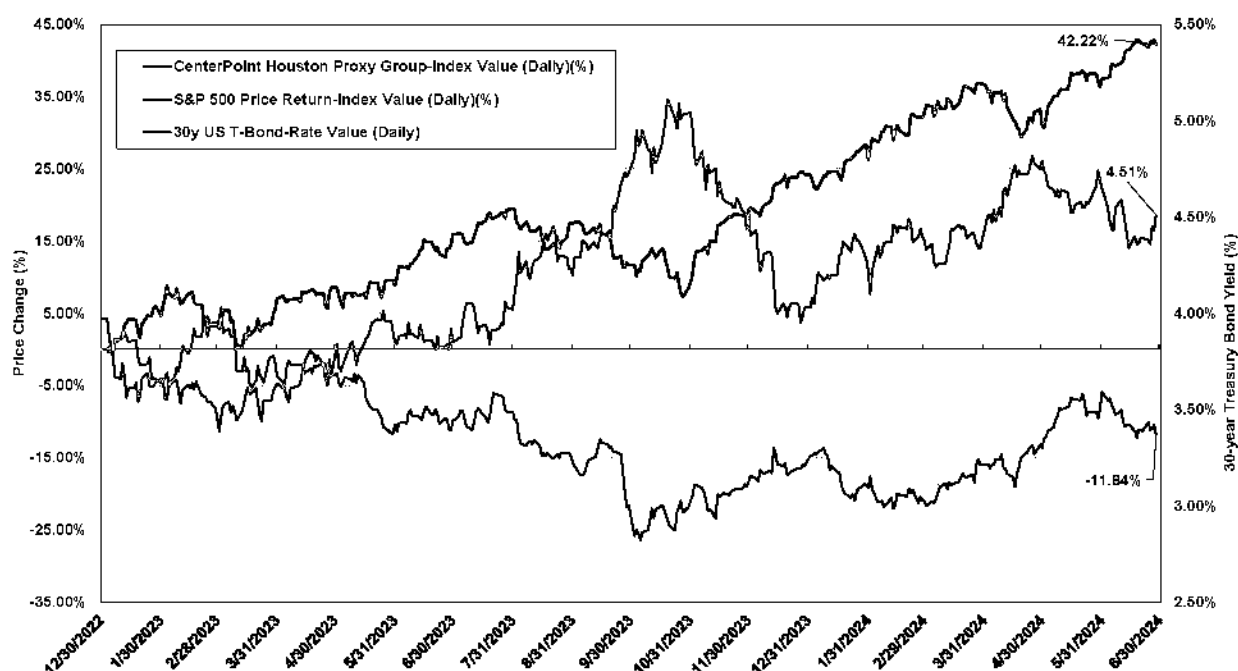
7   Q: IS THE PERFORMANCE OF THE UTILITY SECTOR SINCE

8   JANUARY 1, 2023, CORRELATED TO THE RECENT CHANGES IN THE

9   YIELDS ON LONG-TERM GOVERNMENT BONDS?

10   A.   Yes. As shown in Figure AEB-R-3, while the utilities sector has declined, the yield

11   on the 30-year Treasury bond is approximately 68 basis points higher as of May 31,

12   2024, than as of January 1, 2023. To determine if there was a relationship between

13   the movement in the utilities sector and the bond yields, I calculated the correlation

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[8] S&P Capital IQ Pro.

1   between the daily changes in share prices of the companies in my proxy group and

2   the yield on the 30-year Treasury bond since January 2023. The correlation

3   coefficient between these two series is negative 0.79, which indicates that the share

4   prices of the companies in my proxy group and the yield on the 30-year Treasury

5   bond are highly inversely correlated (i.e., as the yield on the 30-year Treasury bond

6   increases, the share prices of the proxy group companies decrease, and vice versa).

7   This finding is consistent with the analysis conducted by Goldman Sachs and

8   Deutsche Bank referenced in my direct testimony that showed utility stock prices

9   have one of the strongest negative relationships with bond yields.[9]

10 **Q:** **WHAT ARE THE EXPECTATIONS FOR INFLATION AND MONETARY**

11   **POLICY OVER THE NEAR-TERM?**

12 **A.** Over the last several months the FOMC has been clear that it intends to rely on

13   market data before making any changes to interest rates. In the FOMC's meeting

14   on June 12, 2024, Chairman Powell observed that the FOMC will make its decision

15   "meeting by meeting."[10] Further, while the FOMC forecasts one 25 basis point rate

16   cut in 2024,[11] Chairman Powell noted that is just a projection and not a "plan," and

17   indicated that the FOMC is prepared to maintain the current federal funds rate range

18   higher for longer if needed to reduce inflation.[12]

19   Similarly, Boston Federal Reserve President Susan Collins recently

20   commented that she thought the federal funds rate would need to be kept at its

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[9] Direct Testimony of Ann M. Bulkley ("Bulkley Direct") at 26:7-11.

[10] Federal Reserve, Transcript of Chair Powell's Press Conference, at 4 (Jun. 12, 2024).

[11] Federal Reserve, Summary of Economic Projections, at 2 (Jun. 12, 2024).

[12] Federal Reserve, Transcript of Chair Powell's Press Conference, at 4 (Jun. 12, 2024).

1   current level until there was greater confidence that inflation was moving

2   sustainably towards 2 percent.[13] Ms. Collins cited improvements in supply chains

3   as the reason inflation declined in 2023, but that may not continue in 2024 and that

4   slower economic growth will be needed to reduce demand in order to further reduce

5   inflation.[14] New York Federal Reserve President John Williams and Minneapolis

6   Federal Reserve President Neel Kashkari also recently stated that the federal funds

7   rate will need to remain at its current level for longer as more data is collected.[15]

8   More recently, Minneapolis Federal Reserve President Neel Kashkari added that he

9   wanted to see "[m]any more months of positive inflation data" before there is a rate

10   cut and that he has not ruled out further rate increases if inflation does not continue

11   to decrease.[16]

12 **Q:** **DO YOU AGREE WITH DR. WOOLRIDGE REGARDING INTEREST**

13   **RATE EXPECTATIONS AND THE THREAT OF RECESSION?**

14 **A.** No. First, it is important to note that Dr. Woolridge has had the expectation that an

15   impending recession is likely for the last 18 months,[17] and while he provides no

16   indicator of the timeframe, he suggests that if it occurs, it will put downward

17   pressure on interest rates.[18] Recent market data does not support Dr. Woolridge's

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[13] Steve Matthews, "Fed's Collins Says Reaching 2% Inflation Goal May Take Longer," Bloomberg, (May 8, 2024).

[14] Jennifer Schonberger, "Collins Becomes Latest Fed Official to Warn Rates Will Likely Stay Higher for Longer," *Yahoo! Finance*, (May 8, 2024).

[15] *Id.*

[16] Gilchrist, Karen, "Fed's Kashkari wants to see 'many more months' of positive inflation data before a rate cut," CNBC, (May 28, 2024).

[17] *Application of The United Illuminating Company to Amend its Rate Schedules*, Connecticut Public Utilities Regulatory Authority, Docket No. 22-08-08, Direct Testimony of J. Randall Woolridge Ph.D. at 15:1-16:19 (Dec. 13, 2022).

[18] Woolridge Direct at 13:7-17.

1 concerns regarding recession. Further, his views are contrary to the views of the

2 Federal Reserve and other market analysts. For example:

3 • One of the primary indicators of a recession is two consecutive quarters of
4 negative gross domestic product ("GDP") growth; however, there are
5 numerous indicators that suggest Dr. Woolridge's prediction of a recession
6 is contrary to the forecasts of both the Federal Reserve and other market
7 analysts.

8   o The Federal Reserve is not forecasting a recession over the near-
9   term, but rather consistent positive GDP growth through 2026 and
10   beyond.[19]

11   o As reported by *Blue Chip Financial Forecasts*, analysts' consensus
12   estimates of real GDP growth are expected to be positive in every
13   quarter through 3Q/2025.[20]

14   o The Federal Reserve Bank of Philadelphia for its past four quarterly
15   reports has concluded that the U.S. economy looked stronger than it
16   had the 3 months prior, and as of May 10, 2024, raised its projection
17   of annual real GDP growth to 2.5 percent for 2024 and 1.9 percent
18   for 2025.[21]

19 • *Barron's* has cautioned against relying on recession forecasts based on
20 historical norms given that corporate sector debt has changed significantly
21 since the financial crisis of 2008/09 resulting in a more resilient economy.[22]

22   o According to *Barron's*, companies are currently relying less on
23   short-term debt and more on long-term debt, which means they have
24   been less affected by the recent significant increase in short-term
25   interest rates.[23]

26   o Further, a significant portion of the long-term debt matures after
27   2028; therefore, to a certain extent, companies have also been able
28   to avoid issuing long-term debt at the current higher long-term
29   interest rates.[24] Therefore, interest expense has not reduced
30   corporate profits as it may have in the past.

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[19] FOMC, Summary of Economic Projections, at Table 1 (Jun. 21, 2024).

[20] *Blue Chip Financial Forecasts*, Vol. 43, No. 6, at 2 (May 31, 2024).

[21] Philadelphia Federal Reserve, Second Quarter 2024 Survey of Professional Forecasters, May 10, 2024; Philadelphia Federal Reserve, First Quarter 2024 Survey of Professional Forecasters, (Feb. 9, 2024); Philadelphia Federal Reserve, Fourth Quarter 2023 Survey of Professional Forecasters, (Nov. 13, 2023).

[22] Stephen Dover, "The Fed's Rate Hikes Were Supposed to Kill Corporate Profits. Why They Didn't," *Barron's*, (Aug. 29, 2023).

[23] *Id.*

[24] *Id.*

1   • In BofA Securities' recently issued monthly Global Fund Manager Survey,
2   90 percent of the 206 investment professionals surveyed, which directly
3   control over $640 billion in assets under management, indicated that they
4   project a "soft landing" or "no landing," not a recession in the next 12
5   months.[25]

6 **Q: WHAT IS THE MARKET'S EXPECTATION ABOUT INTEREST RATE**

7 **CUTS IN 2024?**

8 A. The market has recognized the strength in the economy and the labor market and

9 has tempered its expectations regarding the number of rate cuts by the FOMC this

10 year. The CME Group, which publishes a "FedWatch" probability chart of FOMC

11 activity, reported on June 25, 2024, that federal funds rate futures contracts reflect

12 expectations of approximately 50 basis points in rate cuts this year, which is

13 substantially lower than the 150 basis points in rate cuts that were expected in

14 January 2024.[26] In summary, the market is expecting that short-term interest rates

15 will remain higher for longer than anticipated at the beginning of 2024.

16 **Q: WHAT ARE INVESTORS' EXPECTATIONS FOR THE YIELDS ON**

17 **LONG-TERM GOVERNMENT BONDS GIVEN THE SUSTAINED**

18 **ELEVATED LEVELS OF INFLATION AND THE FEDERAL RESERVE'S**

19 **RESTRICTIVE MONETARY POLICY?**

20 A. Investors expect long-term interest rates to remain elevated. The most recent *Blue*

21 *Chip Financial Forecasts* report indicates that the consensus estimate of the

22 average yield on the 30-year Treasury bond is 4.35 percent through 4Q/2025 and is

23 also 4.30 percent over the longer term through 2030, meaning long-term interest

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[25] BofA Securities, Global Fund Manager Survey, (Jun. 18, 2024).

[26] CME Group, FedWatch Tool, (Jun. 25, 2024).

Rebuttal Testimony of Ann E. Bulkley
CenterPoint Energy Houston Electric, LLC

1   rates are expected to remain elevated during the period that the Company's rates

2   will be in effect.[27]

3 **Q: WHAT ARE EQUITY ANALYSTS' CURRENT PROJECTIONS**

4   **REGARDING THE PERFORMANCE OF THE UTILITIES SECTOR**

5   **OVER THE NEAR-TERM?**

6 A.   Various equity analysts continue to project that utilities will underperform the

7   broader market given the substantial increases in interest rates over the past two

8   years:

9   • Fidelity Investments continues to classify the utility sector as
10   underweight.[28]

11   • CFRA Research recently classified the utility sector as underweight, stating
12   that the 10-year Treasury yield, which CFRA noted is the "benchmark for
13   gauging the attractiveness of utility valuations and yields," exceeded the
14   dividend yield of the utilities included in the S&P Composite 1500.[29]

15   • UBS classified the 11 sectors of the S&P 500 for 2024 as either most
16   preferred, neutral, or least preferred with the utility sector being classified
17   as one of UBS's three least preferred sectors (i.e., utilities, materials and
18   real estate).[30]

19   • Professional investors surveyed by *Barron's* in its most recent Big Money
20   poll published in May 2024 selected the utility sector as one of the five
21   equity sectors that they liked the least over the next twelve months,
22   indicating they are projecting that utilities will underperform the broader
23   market over the next twelve months.[31]

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[27] *Blue Chip Financial Forecasts*, Vol. 43, No. 7, at 2 (Jul. 1, 2024) and Vol. 43, No. 6, at 14 (May 31, 2024).

[28] Fidelity Investments, "Second Quarter 2024 Investment Research Update," at 3 (Apr. 22, 2024).

[29] Daniel Rich, "U.S. Utilities – Cherry-picking Quality in an Underperforming Sector," CFRA, (Jan. 26, 2024).

[30] Jason Capul, "UBS Prefers Info Tech, Consumer Staples and Energy in 2024," Seeking Alpha, (Dec. 12, 2023).

[31] Paul La Monica, "The Stock Market Will Rise Nearly 10% More This Year, Money Managers Predict in Barron's Latest Poll," Barron's, (May 3, 2024).

1   Q: **MR. GORMAN CLAIMS THAT THE DCF MODEL PRODUCES A**

2   **REASONABLE ESTIMATE OF THE COMPANY'S COST OF EQUITY**

3   **BASED ON EXISTING MARKET CONDITIONS.[32] DO YOU AGREE**

4   **WITH THIS ASSERTION?**

5   A.   No. In fact, Mr. Gorman's review of the spread between the utility dividend yields

6   and utility bond yields proves otherwise. For example, as shown on Exhibit MPG-

7   2, page 5, the spread between the yield on Moody's A-rated utility bonds and the

8   dividend yields of electric utilities (i.e., Moody's A-rated utility bond yield minus

9   utility dividend yields) was 1.69 percent in 2023. However, the 18-year average

10   spread estimated by Mr. Gorman was 0.87 percent. Therefore, the spread in 2023

11   was *double* the long-term average. Thus, the spread is elevated and has not

12   converged to "more normal levels" as suggested by Mr. Gorman.[33]

13 Q: **WHAT WOULD BE THE EFFECT ON DIVIDEND YIELDS IF THE**

14   **SPREAD WERE TO CONVERGE TOWARDS THE LONG-TERM**

15   **AVERAGE?**

16   A.   Since interest rates are expected to remain elevated, dividend yields of utilities

17   would be expected to increase in order for the spread to converge towards the long-

18   term average. This further supports the conclusion that utilities are expected to

19   underperform the broader market. If dividend yields increase as expected, then

20   current estimates of the cost of equity produced by the DCF model will understate

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[32] Gorman Direct at 81:3-82:18.

[33] *Id.* at 81:15-17.

1   the cost of equity required by investors during the period that the Company's rates

2   will be in effect.

3 **Q:** **IS THERE EVIDENCE THAT INVESTORS PERCEIVE THE**

4   **REGULATORY ENVIRONMENT AND THE ELECTRIC UTILITY**

5   **SECTOR AS HAVING SIGNIFICANT RISK?**

6 **A.** Yes. In his February 2024 letter to shareholders of Berkshire Hathaway Energy,

7   Warren Buffet noted the unanticipated risk in regulatory returns: "When the dust

8   settles, America's power needs and the consequent capital expenditure will be

9   staggering. I did not anticipate or even consider the adverse developments in

10   regulatory returns and, along with Berkshire's two partners at BHE, I made a costly

11   mistake in not doing so."[34] This letter demonstrates investors' significant concerns

12   regarding overall regulatory supportiveness and in particular the return on

13   investment in this sector.

14   **IV.   UPDATED COST OF EQUITY RESULTS**

15 **Q:** **HAVE YOU UPDATED YOUR COST OF EQUITY ANALYSES?**

16 **A.** Yes. I have updated the results of the cost of equity analyses conducted in my direct

17   testimony based on market data through June 30, 2024, using the same

18   methodologies as in my direct testimony.

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[34] Warren Buffett, "Annual Letter to the Shareholder of Berkshire Hathaway, Inc.," (Feb. 24, 2024).

1   Q: **HAVE YOU RELIED ON THE SAME PROXY GROUP FOR YOUR**

2   **UPDATED ANALYSES AS YOU RELIED UPON IN YOUR DIRECT**

3   **TESTIMONY?**

4   A.   Yes, with the exception of ALLETE, Inc., which was acquired after I filed my direct

5   testimony and thus would not pass the merger and acquisition screening criterion

6   discussed in my direct testimony. Mr. Gorman also relies on this same proxy group

7   excluding ALLETE, Inc.

8   Q: **WHAT ARE THE UPDATED RESULTS OF YOUR COST OF EQUITY**

9   **ANALYSES?**

10   A.   Figure AEB-R-4 summarizes the results of my updated analyses as of June 30,

11   2024, which are also presented in Exhibits AEB-R-2 through AEB-R-6. As shown,

12   the updated results of the cost of equity analyses continue to support the Company's

13   proposed ROE of 10.40 percent in this proceeding. Specifically, the results of each

14   of the cost of equity models have increased substantially since the filing of my

15   direct testimony, with the DCF results increasing approximately 70 basis points,

16   the CAPM and Empirical Capital Asset Pricing Model ("ECAPM") results

17   increasing by approximately 40 basis points, and the Bond Yield Risk Premium

18   ("BYRP") results increasing by approximately 15 basis points.

1   **Figure AEB-R-4: Summary of Updated Cost of Equity Results**

Constant Growth DCF

	Minimum Growth Rate	Average Growth Rate	Maximum Growth Rate
Mean Results:			
30-Day Average	9.41%	10.54%	11.46%
90-Day Average	9.65%	10.78%	11.70%
180-Day Average	9.51%	10.64%	11.56%
Average	9.52%	10.65%	11.57%
Median Results:			
30-Day Average	9.79%	10.40%	11.19%
90-Day Average	10.01%	10.51%	11.27%
180-Day Average	9.92%	10.57%	11.33%
Average	9.91%	10.49%	11.26%

CAPM / ECAPM / Bond Yield Risk Premium

	30-Year Treasury Bond Yield		
	Current 30-Day Avg	Near-Term Projected	Longer-Term Projected
CAPM:			
Value Line Beta	12.14%	12.13%	12.13%
Bloomberg Beta	11.01%	10.99%	10.97%
Long-term Avg. Beta	10.75%	10.73%	10.71%
ECAPM:			
Value Line Beta	12.27%	12.26%	12.26%
Bloomberg Beta	11.42%	11.40%	11.39%
Long-term Avg. Beta	11.23%	11.21%	11.19%
Bond Yield Risk Premium	10.53%	10.46%	10.41%

1	**V. RESPONSE TO MR. FILAROWICZ**
2	**Q:** **PLEASE SUMMARIZE MR. FILAROWICZ'S COST OF EQUITY**
3	**ANALYSES AND ROE RECOMMENDATION?**

4   A.   Mr. Filarowicz relies on two forms of the DCF model (i.e., a constant growth DCF

5   and a two-stage DCF) and a "conventional" risk premium analysis comparing

6   authorized ROEs to corporate bond yields. As summarized in Figure AEB-R-5,

7   based on these models, Mr. Filarowicz estimates a cost of equity range for

8   CenterPoint Houston of 9.51 percent to 10.23 percent. Mr. Filarowicz recommends

9   an ROE of 9.75 percent, which is in the lower portion of his recommended range.

10   According to Mr. Filarowicz, he selects the lower portion of his range based on

11   current capital market conditions, recent Staff rate of return testimonies, recent

12   Commission orders, and nationally authorized ROEs for electric utilities.[35]

13   **Figure AEB-R-5: Summary of Mr. Filarowicz's Cost of Equity Results and ROE**
14   **Recommendation**

Methodology	Mr. Filarowicz As-Filed
Constant Growth DCF Analysis	9.98%
Multi-Stage DCF Analysis	9.51%
"Conventional" Risk Premium	10.23%
Recommended ROE Range	**9.51% - 10.23%**
Recommended ROE	**9.75%**

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[35] Filarowicz Direct at 26:1-6.

1   **A.   Proxy Group**

2   Q: **DOES MR. FILAROWICZ RELY ON THE SAME PROXY GROUP THAT**

3   **YOU AND MR. GORMAN UTILIZE TO ESTIMATE THE COST OF**

4   **EQUITY?**

5   A.   No. While there is some overlap, Mr. Filarowicz relies on a different proxy group

6   than both Mr. Gorman and I have utilized.

7   Q: **IS THE PROXY GROUP RELIED UPON BY MR. FILAROWICZ**

8   **REASONABLY COMPARABLE TO CENTERPOINT HOUSTON?**

9   A.   No. I recognize that Mr. Filarowicz has applied certain of the same screening

10   criteria as I have applied to develop the proxy group, and there is overlap of certain

11   companies in our respective proxy groups. However, his proxy group is not

12   sufficiently comparable for purposes of evaluating the cost of equity and

13   establishing the ROE for the Company in this proceeding. Mr. Filarowicz's final

14   screening criterion, which excludes "companies not otherwise considered

15   appropriate for being a proxy to target the cost of equity for CenterPoint

16   Houston"[36] is vague and does not actually eliminate companies that are not

17   comparable to CenterPoint Houston.

18   Q: **IS MR. FILAROWICZ'S PROXY GROUP CONSISTENT WITH THE**

19   **PROXY GROUP THAT STAFF RECENTLY FILED IN THE AEP TEXAS**

20   **RATE PROCEEDING IN DOCKET NO. 56165?**

21   A.   No. While the screening criteria applied by Staff in Docket No. 56165 is the exact

22   same as Mr. Filarowicz applies in the current proceeding, inexplicably

---

[36] *Id.* at 14:21-22.

1		Mr. Filarowicz has excluded Xcel Energy from the proxy group. Mr. Filarowicz

1   Mr. Filarowicz has excluded Xcel Energy from the proxy group. Mr. Filarowicz

2   provides no explanation or support as to why Xcel Energy would be excluded in

3   only the few intervening months from when Staff filed its testimony in Docket

4   No. 56165.

5   **Q:**   **DO BOTH MR. GORMAN AND DR. WOOLRIDGE INCLUDE XCEL**

6   **ENERGY IN THEIR RESPECTIVE PROXY GROUPS TO ESTIMATE**

7   **THE COST OF EQUITY FOR THE COMPANY?**

8   **A.**   Yes, both Dr. Woolridge and Mr. Gorman include Xcel Energy in their respective

9   proxy groups.

10   **Q:**   **ARE THERE COMPANIES THAT MR. FILAROWICZ SHOULD HAVE**

11   **EXCLUDED FROM HIS PROXY GROUP?**

12   **A.**   Yes. Mr. Filarowicz should have excluded Fortis, Inc. from his proxy group for

13   two reasons: (1) the business operations of Fortis differ substantially from the

14   operations of CenterPoint Houston; and (2) Canadian regulation differs

15   significantly from United States jurisdictional regulation. Specifically, as

16   discussed in my direct testimony, CenterPoint Houston transmits and distributes

17   electricity on behalf of 65 retail electric providers to approximately 2.76 million

18   metered customers in the Houston/Galveston metropolitan area near the Texas gulf

19   coast.[37] However, Fortis, Inc. is a holding company with regulated subsidiaries

20   operating in five Canadian provinces, ten U.S. states, and three Caribbean

21   countries.[38] Approximately 39 percent of Fortis Inc.'s revenue was derived from

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[37] Bulkley Direct at 30:3-8.

[38] Fortis, Inc. Annual Report, at 5 (Dec. 31, 2023).

1		Canadian operations, which are regulated on a different basis than US regulation.[39]
2		Further, Fortis's U.S. operations include ownership of ITC Holdings Corp., which
3		is an electric transmission company with operations across the central United States
4		that is regulated by the Federal Energy Regulatory Commission ("FERC").
5		CenterPoint Houston's focus on regulated electric distribution operations in Texas
6		are substantially different than the risk profile of Fortis, Inc. As I result,
7		Mr. Filarowicz should have excluded Fortis, Inc. from his proxy group for not
8		meeting his screening criterion that excludes companies "otherwise considered
9		inappropriate for being a proxy to target the cost of equity for CEHE."[40]
10	Q:	**DO EITHER MR. GORMAN OR DR. WOOLRIDGE INCLUDE FORTIS,**
11		**INC. IN THEIR PROXY GROUP TO ESTIMATE THE COST OF EQUITY**
12		**FOR THE COMPANY?**
13	A.	No. Both Dr. Woolridge and Mr. Gorman have also excluded Fortis, Inc. from their
14		respective proxy groups.
15		**B. DCF Analysis**
16	Q:	**PLEASE SUMMARIZE MR. FILAROWICZ'S DCF ANALYSES.**
17	A.	As noted, Mr. Filarowicz conducts two forms of the DCF analysis, a constant
18		growth DCF and a multi-stage DCF. Specifically, Mr. Filarowicz utilizes 12-week
19		average stock prices of the proxy group companies to calculate the dividend yield
20		for each company, and projected earnings per share ("EPS") growth rates in his
21		constant growth DCF, and a combination of projected EPS growth rates and a long-

---

[39] *Id.*

[40] Filarowicz Direct at 14:21-22.

1 run nominal growth rate for his two stage DCF analysis. Specifically,

2 Mr. Filarowicz's long-run nominal growth rate is 5.09 percent, which consists of

3 the annual average real growth rate in GDP from 1948 through the first quarter of

4 2024 of 3.09 percent plus a long-run inflation forecast of 2.00 percent. Mr.

5 Filarowicz's constant growth DCF model produces a cost of equity of 9.98 percent,

6 while his two-stage DCF model produces a cost of equity of 9.51 percent. [41]

7 **Q:** **DO YOU DISAGREE WITH ANY ASPECTS OF MR. FILAROWICZ'S**

8 **CONSTANT GROWTH DCF ANALYSIS?**

9 A. Generally, I agree with the approach of Mr. Filarowicz's constant growth DCF

10 analysis; however, there are two issues with which I disagree. First, for the reasons

11 previously discussed, Mr. Filarowicz should have excluded Fortis, Inc. and

12 included Xcel Energy for his proxy group. Second, the timing of the data used in

13 Mr. Filarowicz's DCF analysis is inconsistent and should be aligned. For example,

14 Mr. Filarowicz relies on average stock prices for the 12 weeks ended June 3, 2024,

15 but relies on projected EPS growth rates from Value Line through the publication

16 dated April 19, 2024, and from *Zacks Investment Research* ("*Zacks*") and *Yahoo!*

17 *Finance* through May 13 and May 10, 2024, respectively. In addition, the projected

18 EPS growth rate for Evergy, Inc. is not actually as of May 10, 2024, but rather

19 appears to be from February 2024 as indicted by workpaper provided by

20 Mr. Filarowicz supporting the growth rates.

---

[41] *Id.* at 22:4-9.

1 Q: **HAVE YOU ADJUSTED MR. FILAROWICZ'S CONSTANT GROWTH**

2 **DCF ANALYSIS?**

3 A. Yes. I have corrected and updated Mr. Filarowicz's constant growth DCF analysis

4 to: (1) remove Fortis, Inc. from his proxy group; (2) include Xcel Energy in his

5 proxy group; and (3) aligned the average stock prices and projected EPS growth

6 rates such that all data is through June 1, 2023, consistent with the stock prices that

7 Mr. Filarowicz presents in Attachment MF-3 of this testimony. As shown in

8 Exhibit AEB-R-7, by making these reasonable adjustments to Mr. Filarowicz's

9 constant growth DCF analysis, the average DCF result is 10.35 percent.

10 Q: **DO YOU AGREE WITH MR. FILAROWICZ THAT IT IS NECESSARY TO**

11 **CONSIDER A MULTI-STAGE DCF MODEL?**

12 A. No. The utility industry is considered a mature industry due to its regulated status

13 and relatively stable demand. Thus, financial projections such as earnings growth

14 rate projections are also likely to be relatively stable over the long-term. The

15 relative stability of the financial forecasts for utilities supports the use of a constant

16 growth DCF model to estimate the cost of equity for a mature industry like utilities.

17 As discussed later herein, Dr. Woolridge also conducts a constant growth DCF and

18 not a multi-stage DCF for the same reason.

19 Q: **DOES THE MULTI-STAGE FORM OF THE DCF MODEL INCREASE**

20 **THE NUMBER OF SUBJECTIVE INPUTS REQUIRED TO ESTIMATE**

21 **THE DCF MODEL?**

22 A. Yes. The multi-stage DCF model introduces additional assumptions and potential

23 analyst bias. Given the number of additional subjective assumptions required, it is

24 reasonable to conclude that a multi-stage DCF analysis creates greater opportunity

1   for an analyst to influence the results of the DCF model. Specifically, the two-stage

2   DCF model presented by Mr. Filarowicz in this proceeding results in the following

3   additional assumptions that require subjective judgment:

4   • Specification of the Model: Mr. Filarowicz presents a two-stage DCF
5   model with two stages of growth; however, there are other forms of the
6   multi-stage DCF model, for example, one with three stages of growth –
7   which was the form of the model used by Staff in Docket No. 56165 a few
8   months ago.

9   • Selection of the Growth Rates: Mr. Filarowicz's two-stage DCF model
10   requires selecting a short-term and long-term growth rate. Mr. Filarowicz
11   selects a nominal GDP growth rate of 5.09 percent as the estimate of long-
12   term growth, however, as I discuss in more detail later herein, Mr. Gorman
13   selects a nominal GDP growth rate of 4.10 percent as his estimate of long-
14   term growth.[42]

15   • Duration of Each Stage of the Multi-Stage DCF Model: For his two-stage
16   DCF model, Mr. Filarowicz assumes stage 1 growth is years 1-5 and stage
17   2 is years 6 and after.

18   Given the number of additional subjective assumptions required, it is reasonable to

19   conclude that a multi-stage DCF analysis creates greater opportunity for an analyst

20   to influence the results of the model.

21   **C.   Risk Premium Analysis**

22 **Q:** **PLEASE SUMMARIZE MR. FILAROWICZ'S RISK PREMIUM**

23   **ANALYSIS.**

24 A. Mr. Filarowicz conducts a "conventional" risk premium analysis comparing

25   authorized ROEs to corporate bond yields. Mr. Filarowicz states that the

26   "conventional" risk premium analysis is the "primary risk-premium method on

27   which Staff has relied for many years."[43]

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[42] Gorman Direct at 51:11-52:5.

[43] Filarowicz Direct at 23:26.

1   Q: **DO YOU AGREE WITH MR. FILAROWICZ'S "CONVENTIONAL" RISK**

2   **PREMIUM ANALYSIS?**

3   A.   Generally, I agree with the form of Staff's "conventional" risk premium analysis,

4   which demonstrates that there is an inverse relationship between interest rates and

5   equity risk premia. However, Mr. Filarowicz relies on an outdated three-month

6   average corporate bond yield that is inconsistent with the time period through which

7   he uses for the average stock prices of his proxy group companies that that he relies

8   on in his DCF analyses. Instead, Mr. Filarowicz's analysis should be updated to

9   reflect the Baa-rated corporate bond yield through the start of June 2024 consistent

10   with the time period that he relies on for the share prices of his proxy group

11   companies for his constant growth and two-stage DCF analyses. In addition,

12   Mr. Filarowicz's analysis can also be updated to apply his regression results to a

13   projected Baa-rated corporate bond yield, not just the current bond yield.

14   Q: **WHAT   ARE   THE   RESULTS   OF   MR.   FILAROWICZ'S**

15   **"CONVENTIONAL" RISK PREMIUM ANALYSIS WHEN ADJUSTED TO**

16   **ACCOUNT FOR THESE TWO FACTORS?**

17   A.   As shown in Exhibit AEB-R-8, when Mr. Filarowicz's "conventional" risk

18   premium analysis is updated to reflect the three-month average corporate bond

19   yields through May 2024, the resulting cost of equity increases from 10.23 percent

20   to 10.34 percent. In addition, when this analysis is updated to use projected rather

21   than historical Baa-rated corporate bond yields, Mr. Filarowicz's "conventional"

22   risk premium analysis results in a cost of equity of 10.31 percent.

1   **D.   CAPM Analysis**

2   Q: **DOES MR. FILAROWICZ CONDUCT A CAPM ANALYSIS IN THIS**

3   **PROCEEDING TO ESTIMATE THE COST OF EQUITY?**

4   A.   No, Mr. Filarowicz does not estimate the cost of equity in this proceeding using a

5   CAPM analysis.

6   Q: **HAS MR. FILAROWICZ PREVIOUSLY CONDUCTED A CAPM**

7   **ANALYSIS TO ESTIMATE THE COST OF EQUITY?**

8   A.   Yes. I am aware that Mr. Filarowicz conducted a CAPM analysis to estimate the

9   cost of equity in Docket No. 53719.

10   Q: **DOES MR. FILAROWICZ DISCUSS WHY HE DOES NOT CONDUCT A**

11   **CAPM ANALYSIS TO ESTIMATE THE COST OF EQUITY IN THIS**

12   **PROCEEDING?**

13   A.   No.

14   Q: **HAVE YOU EVALUATED THE COST OF EQUITY THAT WOULD**

15   **RESULT IF MR. FILAROWICZ HAD CONDUCTED A CAPM ANALYSIS**

16   **CONSISTENT WITH THE METHODOLOGY THAT HE APPLIED IN**

17   **DOCKET NO. 53719?**

18   A.   Yes. While I do not agree will all of the aspects of the CAPM analysis that

19   Mr. Filarowicz conducted in Docket No. 53719 for the reasons that I stated in my

20   rebuttal testimony in that proceeding, Exhibit AEB-R-9 presents the results of that

21   analysis based on the current market conditions. Specifically, in Docket No. 53719,

22   Mr. Filarowicz relied on (1) a risk-free rate that was the average yield of the 20-

23   year Treasury bond for the most recent two months; (2) current betas published by

24   *Value Line* for his proxy group; and (3) a market risk premium calculated as the

1   arithmetic mean return of large company stocks from 1926 to current as published

2   by *Kroll* minus the arithmetic mean total return of long-term government bonds

3   over the same period as published by the same source. As shown on Exhibit AEB-

4   R-9, when Mr. Filarowicz's same approach to the CAPM is applied in this

5   proceeding, the resulting cost of equity is 10.66 percent.

6   **E.   Overall ROE Recommendation**

7 Q: **HOW DOES MR. FILAROWICZ DEVELOP HIS OVERALL ROE**

8   **RECOMMENDATION FOR THE COMPANY IN THIS PROCEEDING?**

9 A. Mr. Filarowicz recommends an ROE of 9.75 percent, which is the average of the

10   results of his constant growth DCF and multi-stage DCF analyses but excluding the

11   result of his Conventional Risk Premium analysis. Mr. Filarowicz states that a

12   reasonable ROE range is 9.51 percent (i.e., the result of his two-stage DCF analysis)

13   to 10.23 percent (i.e., the result of his Conventional Risk Premium analysis), and

14   that he recommends an ROE that is within the lower-end of his range of results due

15   to "current capital market conditions and recent Staff rate-of-return testimonies and

16   Commission final orders for vertically integrated utilities, TDUs [*i.e., transmission*

17   *and distribution only utilities*], and transmission-only utilities, as well as recent

18   national average authorized ROEs for electric utilities."[44]

19 Q: **HAS MR. FILAROWICZ SUPPORTED THE MANNER IN WHICH HE**

20   **ESTABLISHES HIS ROE RECOMMENDATION?**

21 A. No. First, while Mr. Filarowicz states that he considers the results of all three of

22   his cost of equity analyses, he provides no explanation or justification for

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[44] *Id.* at 26:2-5 (clarification added).

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1   disregarding the result of his Conventional Risk Premium analysis. As filed, the

2   average result of Mr. Filarowicz's three cost of equity models is 9.91 percent, or

3   approximately 15 basis points higher than his ROE recommendation. Second, other

4   than mentioning that his ROE recommendation is within the lower end of the range

5   of his cost of equity model results due to "capital market conditions,"

6   Mr. Filarowicz's testimony does not discuss capital market conditions at all.

7   Therefore, it is not possible for Mr. Filarowicz to support an ROE at the lower end

8   of his results based on conditions that he has not analyzed. Third, while

9   Mr. Filarowicz indicates that he also considers recent national average authorized

10   ROEs for electric utilities, he does not conduct any comparative business or

11   regulatory risk analysis of CenterPoint Houston to his proxy group. Thus,

12   Mr. Filarowicz has not compared the risks of CenterPoint Houston to the risks of

13   the proxy group for purposes of determining the comparability of national average

14   authorized ROEs to the Company.

15 Q: **WHAT IS THE RESULTING AVERAGE COST OF EQUITY WHEN YOUR**

16   **CORRECTIONS AND UPDATES TO MR. FILAROWICZ'S COST OF**

17   **EQUITY ANALYSES ARE CONSIDERED?**

18 A. Figure AEB-R-6 compares the average cost of equity from Mr. Filarowicz's models

19   as filed in his testimony versus the results of those models when they have been updated

20   such that the underlying data reflects the same time period and corrected to be

21   consistent with Staff's prior approaches to estimating the cost of equity. Specifically,

22   the adjustments to Mr. Filarowicz's cost of equity analyses shown in Figure AEB-R-

23   6 reflect:

1　　　• Excluding Fortis Inc. from Mr. Filarowicz's proxy group because the
2　　　　company is not comparable to CenterPoint Houston.

3　　　• Including Xcel Energy to Mr. Filarowicz's proxy group consistent with Staff's
4　　　　position approximately a month ago in Docket No. 56165.

5　　　• Aligning the dates of the stock prices and projected EPS growth rates in
6　　　　Mr. Filarowicz's constant growth DCF.

7　　　• Updating the corporate bond yields in Mr. Filarowicz's "Conventional" Risk
8　　　　Premium analysis to align with the time period for the stock prices he uses in
9　　　　his constant growth DCF analysis.

10　　• Conducting a CAPM analysis consistent with the same assumptions that
11　　　Mr. Filarowicz previously applied when he conducted a CAPM analysis in
12　　　Docket No. 53719.

13　**Figure AEB-R-6: Summary of Mr. Filarowicz's Cost of Equity Results and ROE**
14　**Recommendation, As Filed v. As Corrected/Updated**

	Mr. Filarowicz As Filed	Mr. Filarowicz As Adjusted
Constant Growth DCF	9.98%	10.35%
Multi-Stage DCF	9.51%	n/a
"Conventional" Risk Premium		
Current Corporate Bond Yield	10.23%	10.34%
Projected Corporate Bond Yield	n/a	10.31%
Average	10.23%	10.33%
CAPM	n/a	10.66%
Average Cost of Equity	**9.91%**	**10.44%**

15　　As shown in Figure AEB-R-6, when these reasonable adjustments are made to update

16　the data in Mr. Filarowicz's cost of equity analyses and to correct for inconsistencies,

17　the resulting average cost of equity is 10.44 percent – which is consistent with, albeit

18　slightly higher than, the Company's proposed ROE of 10.40 percent.

1   VI.   RESPONSE TO MR. GORMAN

2   A.   Overall ROE Recommendation

3   Q: HOW DOES MR. GORMAN DEVELOP HIS RECOMMENDED ROE?

4   A.   As shown in Table 17 of Mr. Gorman's testimony, his recommendations from

5   within the range of results established for each of his cost of equity models are 9.30

6   percent for the DCF model, 9.60 percent for the Risk Premium and 9.75 percent for

7   the CAPM model. This results in a cost of equity range of 9.30 percent to 9.75

8   percent. However, despite establishing these recommended results for each of his

9   analyses, Mr. Gorman truncates the high end of that range, concluding that

10   CenterPoint Houston's market-derived return on equity should be in the range of

11   9.30 percent to 9.70 percent, with his recommended ROE being the midpoint

12   estimate of 9.50 percent.[45] The midpoint of the range of results summarized in

13   Table 17 of his testimony would be 9.53 percent.

14   Q: IS MR. GORMAN'S RECOMMENDED ROE IN THIS PROCEEDING

15   CONSISTENT WITH CHANGING MARKET CONDITIONS?

16   A.   No. Mr. Gorman's recommended ROE is inconsistent with the changes in market

17   conditions that have occurred since the Company's last rate proceeding. As shown

18   in Figure AEB-R-7, both core inflation and short-term and long-term interest rates

19   are substantially higher than they were in June 2019 when Mr. Gorman filed his

20   testimony in the Company's last rate proceedings. As shown, the federal funds rate

21   is nearly 300 basis points higher, the average yield on the 30-year Treasury bond is

22   approximately 175 basis points higher, and the average yield on the Moody's Baa-

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[45] Gorman Direct at 73:1-3.

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1   rated utility bond is 145 basis points higher, and core inflation is approximately

2   135 basis points higher. All of these market conditions demonstrate that the cost

3   of equity is significantly higher now than it was in Docket No. 49421 and supports

4   an increase in the Company's currently authorized ROE. Nonetheless, Mr. Gorman

5   recommends an ROE of 9.50 percent, which is only 10 basis points higher than the

6   Company's current authorized ROE of 9.40 percent, and only 25 basis points higher

7   than his recommendation in the Company's last rate proceeding. Based on the data

8   in Figure AEB-R-7, it is evident that Mr. Gorman's recommended ROE in this

9   proceeding is divorced from changes in market conditions and does not reflect the

10   current cost of equity.

11   **Figure AEB-R-7: Comparison of Market Conditions and Mr. Gorman's ROE**
12   **Recommendations– 2019 and 2024**

Docket No.	Gorman Filing Date	Federal Funds Rate	30-Day Avg of 30-Year Treasury Bond Yield	30-Day Avg Moody's Baa-rated Utility Bond Yield	Core Inflation Rate	Gorman Recomm'd ROE	Auth'd ROE
49421 - Gorman Direct	6/6/2019	2.37%	2.80%	4.46%	2.07%	9.25%	9.40%
56211 - Gorman Direct	6/19/2024	5.33%	4.54%	5.91%	3.41%	9.50%	
Change from June-19 to June-24:		*2.96%*	*1.74%*	*1.45%*	*1.34%*	*0.25%*	

13   **Q: DO THE RESULTS OF MR. GORMAN'S COST OF EQUITY ANALYSES**

14   **DEMONSTRATE THAT THE COST OF EQUITY HAS INCREASED**

15   **SIGNIFICANTLY SINCE THE COMPANY'S 2019 RATE PROCEEDING?**

16   A.   Yes. Figure AEB-R-8 summarizes the results of Mr. Gorman's cost of equity

17   analyses in the Company's last rate proceeding relative to the results of his analyses

18   in the Company's current rate proceeding. Comparing Mr. Gorman's own model

1   results over these two analytical periods, it is undeniable that the cost of equity has

2   increased significantly since June 2019 when Mr. Gorman last filed testimony

3   regarding the Company's ROE. Specifically:

4   •   The average result of Mr. Gorman's DCF analyses has increased by over
5   125 basis points, yet inexplicably, Mr. Gorman suggests that his DCF
6   analyses in the current proceeding indicate a fair return that is *15 basis*
7   *points lower* than his testimony in the Company's last rate proceeding.

8   •   The average result of Mr. Gorman's CAPM analyses has increased over 225
9   basis points. As discussed later herein, while Mr. Gorman disavows his
10   high end CAPM estimate in the current proceeding, nonetheless the fair
11   return that Mr. Gorman suggests from his CAPM estimate has increased
12   105 basis points since the Company's last rate proceeding.

13   •   The average result of his Risk Premium analyses has increased 30 basis
14   points.

15   •   Overall, without making any adjustments to Mr. Gorman's cost of equity
16   analyses to account for the inconsistencies and flaws in those analyses, the
17   average cost of equity resulting from his DCF, CAPM, and Risk Premium
18   analyses has increased more than 125 basis points, and even if his high end
19   CAPM estimate is excluded such as he suggests in the current proceeding,
20   the average cost of equity still has increased by approximately 110 basis
21   points.

22   These results of his analyses clearly demonstrate a significant increase in the cost

23   of equity that is not reflected in his ROE recommendation.

1 **Figure AEB-R-8: Comparison of the Results of Mr. Gorman's Cost of Equity**
2 **Analyses in the Company's Last Rate Case and the Current Case**

	Docket No. 49421 6/6/2019		Docket No. 56165 5/16/2024		Increase / (Decrease)
DCF	Mean	Median	Mean	Median	
Constant Growth (EPS Gwth)	9.31%	9.57%	11.10%	10.62%	
Constant Growth (Sust. Gwth)	8.11%	8.20%	9.42%	9.29%	
Multi-Stage	8.21%	8.17%	9.30%	9.49%	
DCF Average	8.60%		9.87%		1.28%
DCF Recommendation	9.45%		9.30%		-0.15%
CAPM					
High End Estimate	8.73%		10.93%		
Low End Estimate	7.40%		9.75%		
CAPM Average	8.07%		10.34%		2.28%
CAPM Recommendation	8.70%		9.75%		1.05%
Risk Premium					
Treasury Bond	9.20%		9.60%		
Utility Bond	9.40%		9.60%		
RP Average	9.30%		9.60%		0.30%
RP Recommendation	9.30%		9.60%		0.30%
Average All Models	8.65%		9.94%		1.28%
Avg. (excl. High End CAPM)	n/a		9.74%		1.09%
Recommended ROE Range	9.00% - 9.50%		9.30% - 9.70%		
ROE Recommendation	9.25%		9.50%		0.25%

3 Q: **HAS MR. GORMAN APPLIED A CONSISTENT APPROACH TO**

4   **DEVELOPING HIS RECOMMENDED ROE RANGE AND HIS OVERALL**

5   **RECOMMENDED ROE IN THIS PROCEEDING AS COMPARED TO HIS**

6   **APPROACH IN THE COMPANY'S LAST RATE PROCEEDING?**

7 A. No. As shown in Figure AEB-R-8, in the Company's last rate proceeding,

8   Mr. Gorman's recommended ROE range and ultimate ROE recommendation was

9   well above the average of his DCF, CAPM and Risk Premium results. Specifically,

1   in the Company's last rate proceeding, the average result of Mr. Gorman's cost of

2   equity estimation models was 8.65 percent, yet he recommended an ROE that was

3   60 basis points higher at 9.25 percent. In contrast, in the current proceeding, the

4   average result of all of Mr. Gorman's cost of equity estimation models is 9.94

5   percent (or 9.74 percent excluding his high end CAPM result), yet his

6   recommended ROE is 9.50 percent, or approximately *45 basis points lower than*

7   the average result. Therefore, Mr. Gorman's recommended ROE in this

8   proceeding, which is only 10 basis points greater than the Company's currently

9   authorized ROE of 9.40 percent, is clearly inconsistent with the recent change in

10   capital market conditions, inconsistent with his approach to recommending an ROE

11   in the Company's last rate proceeding, and inconsistent with the substantial

12   increase in the results of his own cost of equity analyses from the Company's last

13   rate proceeding. Consequently, the Commission should carefully consider

14   Mr. Gorman's ROE recommendation based on these substantial inconsistencies.

1   **Q:**   **IN THIS PROCEEDING, MR. GORMAN CONTENDS THAT IT IS**

2   **NECESSARY TO CONSIDER ANALYST PROJECTIONS OF DECLINING**

3   **INTEREST RATES IN SETTING THE COST OF EQUITY AND RELIES**

4   **ON HIS CAPM RESULT THAT USES A PROJECTED RISK-FREE**

5   **RATE.[46] IS MR. GORMAN'S POSITION REGARDING THE NEED TO**

6   **RELY ON A PROJECTED INTEREST RATE CONSISTENT WITH HIS**

7   **PRIOR TESTIMONIES BEFORE THE COMMISSION?**

8   **A.**   No. Mr. Gorman's use of market projections to support his conclusion that interest

9   rates will decline over the near-term is another example of the inconsistencies

10   between his testimony in this case and prior testimony he has filed before the

11   Commission. For example, in the Company's last rate proceeding, Mr. Gorman

12   testified against the use of projected interest rates in favor of the use of current

13   observable interest rates. In that case, Mr. Gorman responded to the Company's

14   cost of equity witness's use of projected interest rates in his risk premium analysis

15   stating:

16   Mr. Hevert's primary reliance on forecasted Treasury bond yields is
17   unreasonable because he is not considering the highly likely
18   outcome that current observable interest rates will prevail during the
19   period in which rates determined in this proceeding will be in effect.
20   This is important because, while current observable interest rates are
21   actual market data that provides a measure of the current cost of
22   capital, the accuracy of forecasted interest rates is problematic at
23   best.[47]

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[46] *Id.* at 15:1-17:4 ("Moreover, the current outlook for long-term interest rates in the intermediate to longer term is also impacted by the current Federal Reserve actions and the expectation that eventually the Federal Reserve's monetary actions will return to more normal levels."); *id.* at 72:3-15.

[47] *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 49421, Direct Testimony of Michael P. Gorman at 95:1-6 (Jun. 6, 2019).

1   Mr. Gorman made the exact same argument in AEP Texas's rate proceeding in

2   2019 as well.[48]

3   Further, in response to my analysis in Entergy Texas Inc.'s last rate case,

4   Mr. Gorman offered a similar criticism, which again contradicts his contention now

5   in the Company's current proceeding to consider analysts' projections of declining

6   interest rates:

7   Ms. Bulkley's primary reliance on forecasted Treasury bond yields
8   is unreasonable because she is not considering the highly likely
9   outcome that current observable interest rates will prevail during the
10   period in which rates determined in this proceeding will be in effect.
11   This is important because, while current observable interest rates
12   constitute actual market data and an objective measure of the current
13   cost of capital, relying on interest rate forecasts is highly
14   problematic.[49]

15   The consensus forecasts on which Mr. Gorman currently relies to support his view

16   that forward-looking interest rates, which are lower, now should be considered in

17   setting the ROE in this proceeding are from the same publication that are the basis

18   for his criticisms of my analyses in Entergy Texas Inc.'s last rate proceeding and

19   of Mr. Hevert's analyses in the CenterPoint Houston's and AEP Texas's last rate

20   proceedings.   Again, these inconsistencies in Mr. Gorman's positions should be

21   carefully considered by the Commission in this proceeding.

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[48] *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 49494 Direct Testimony of Michael P. Gorman at 97:18-98:2 (Jul. 25, 2019).

[49] *Application of Entergy Texas, Inc. for Authority to Change Rates*, Docket No. 53719, Direct Testimony of Michael P. Gorman at 82:21-26 (Oct. 26, 2022).

1   **B.   DCF Analyses**

2   Q: **PLEASE SUMMARIZE MR. GORMAN'S DCF ANALYSES?**

3   A.   Mr. Gorman conducts three DCF analyses: two constant growth DCF models (i.e.,

4   one that relies on analysts' projected EPS growth rates and the other that relies on

5   estimated sustainable growth rates), and a multi-stage DCF model. For his multi-

6   stage DCF model, Mr. Gorman relies on analysts' projected EPS growth rates in

7   Stage 1 (i.e., years 1-5) and a projected long-term GDP growth rate of 4.10 percent

8   in Stage 3 (i.e., year 11 and thereafter), while the growth rate in Stage 2 (i.e., years

9   6-10) is a transition between the Stage 1 and Stage 3 growth rates.[50] Mr. Gorman

10   states that the results of these DCF analyses indicate a fair ROE of 9.30 percent, as

11   he places "little weight" on the results of his constant growth DCF using analysts'

12   projected EPS growth rates and instead relies on the results of his constant growth

13   DCF using sustainable growth rates and his multi-stage DCF analysis.[51]

14 Q: **HAS MR. GORMAN APPLIED A CONSISTENT METHODOLOGY IN**

15   **DETERMINING A FAIR RETURN INDICATED BY THE RESULTS OF**

16   **HIS DCF ANALYSES?**

17 A.   No. Figure AEB-R-9 summarizes Mr. Gorman's DCF results and the fair return he

18   stated was indicated by these results in ten proceedings since 2019 for electric

19   utilities. As shown, the results of Mr. Gorman's DCF analyses have increased from

20   October 2022, where the average result of all of his DCF analyses was 8.30 percent,

21   through June 2024, where the average result of all of his DCF analyses is now 9.87

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[50] Gorman Direct at Exhibit MPG-11.

[51] *Id.* at 55:2-11.

1   percent. However, despite this significant increase in the cost of equity as

2   demonstrated by his own DCF analyses, Mr. Gorman has modified his approach

3   for determining the fair return indicated by his DCF analysis so that the fair return

4   that he recommends has remained in the range of 9.00 percent to 9.30 percent over

5   this period.

6   As shown in the last column of Figure AEB-R-9, Mr. Gorman has changed

7   the weight he places on each of his three DCF models in order that the fair return

8   he recommends has remained in that narrow range. Specifically, in the first four

9   proceedings shown from 2019 through 2022, Mr. Gorman placed primary weight

10   on the results produced by his constant growth DCF analysis using analysts'

11   projected EPS growth rates. Then, in 2023, Mr. Gorman shifted his approach such

12   that he gave equal weight to the results of all of his DCF analyses. Now, in the

13   current proceeding and in two other recent proceedings in the past 3 months,

14   Mr. Gorman contends that it is appropriate to place primary weight on the results

15   of both his constant growth DCF using sustainable growth rates and multi-stage

16   DCF, while effectively dismissing the results of his constant growth DCF using

17   analysts' projected EPS growth rates. Instead of considering the substantial

18   increase in his DCF results and reflecting this in the ROE that he recommends is

19   indicated by those results, it is clear that Mr. Gorman has arbitrarily changed the

20   weight that he places on results of each his DCF analyses in order to engineer a

21   specific result. In other words, Mr. Gorman is now effectively dismissing the

22   results of his constant growth DCF that uses analysts' projected EPS growth rates

23   in order to minimize and mitigate the effect of the increase in the cost of equity

24   indicated by his own DCF models.

1
2

Figure AEB-R-9: Comparison of Mr. Gorman's DCF Model Results - Electric Utilities - 2019-2024[52]

Applicant	State	Docket No.	Date	Model 1: Constant Growth DCF (Proj. EPS Gwth)		Model 2: Constant Growth DCF (Sustainable Gwth)		Model 3: Multi Stage DCF		Average Analysts' Projected Growth Rate	Projected GDP Growth Rate	Average of DCF Results	Gorman Fair Return of DCF	Primary Basis of Gorman Fair Return of DCF
				Mean	Median	Mean	Median	Mean	Median					
CenterPoint Houston	TX	49421	6/6/2019	9.31%	9.57%	8.11%	8.26%	8.21%	8.17%	5.38%	4.00%	8.60%	9.20%	Model 1
AEP Texas	TX	49494	7/25/2019	9.15%	8.96%	8.23%	8.58%	8.01%	7.64%	5.47%	4.10%	8.43%	9.20%	Model 1
Oncor Electric	TX	53601	8/26/2022	8.68%	9.12%	8.24%	7.86%	8.18%	8.18%	5.04%	4.45%	8.38%	8.90%	Model 1
Entergy Texas	TX	53719	10/26/2022	9.15%	9.24%	8.13%	7.87%	7.74%	7.69%	5.30%	4.00%	8.30%	9.00%	Model 1
UNS Electric	AZ	E-04204A-22-0251	6/14/2023	10.19%	9.98%	8.68%	8.25%	8.33%	8.25%	6.38%	4.00%	8.95%	9.25%	Midpoint of Avg. of Model 1 & Avg. of Models 2, 3
Evergy KS / Metro	KS	23-EKCE-775-RTS	8/29/2023	10.06%	10.24%	8.50%	8.51%	8.59%	8.59%	6.16%	4.30%	9.08%	9.10%	Average of Models 1, 2, 3
Indiana Michigan Power	IN	45933	11/15/2023	10.33%	10.26%	8.52%	8.50%	8.78%	8.89%	6.02%	4.00%	9.21%	9.20%	Average of Models 1, 2, 3
CenterPoint Indiana	IN	45990	3/12/2024	10.42%	10.16%	9.16%	9.12%	9.10%	9.21%	5.93%	4.20%	9.53%	9.20%	Models 2, 3
AEP Texas	TX	56165	5/16/2024	11.06%	10.71%	9.31%	9.19%	9.38%	9.36%	6.37%	4.10%	9.84%	9.30%	Models 2, 3
CenterPoint Houston	TX	56211	6/19/2024	11.10%	10.62%	9.42%	9.29%	9.30%	9.49%	6.51%	4.10%	9.87%	9.30%	Models 2, 3

[52] Docket No. 49421, Direct Testimony of Michael P. Gorman at 54-55, Exhibit MPG-5, Exhibit MPG-9, Exhibit MPG-11, and Exhibit MPG-14; Docket No. 49494, Direct Testimony of Michael P. Gorman at 49, 50, 63 and Exhibit MPG-7; *Application of Oncor Electric Delivery Company, LLC for Authority to Change Rates*, Docket No. 53601, Direct Testimony of Michael P. Gorman at 58, 59, 73 and Exhibit MPG-5 (Aug. 26, 2022); Docket No. 53719, Direct Testimony of Michael P. Gorman at 40-41 and Exhibit MPG-5; *In the Matter of the Application of UNS Electric, Inc. for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of UNS Electric Inc. Devoted to its Operations Throughout the State of Arizona and for Related Approvals*, Arizona Corporation Commission, Docket No. E-04204A-22-0251, Direct Testimony of Michael P. Gorman at 37-38, and Exhibit MPG-5 (Jun 15, 2023); *In the Matter of the Joint Application of Evergy Kansas Central, Inc. Evergy Kansas South, Inc. and Evergy Metro, Inc. for Approval to Make Certain Changes in their Charges for Electric Service*, Kansas Corp. Commission, Docket No. 23-EKCE-775-RTS, Direct Testimony of Michael P. Gorman at 75:16-76:3, Exhibit MPG-8, and Exhibit MPG-13 (Aug. 29, 2023); *Petition Of Indiana Michigan Power Company, An Indiana Corporation, For Authority To Increase Its Rates And Charges For Electric Utility Service Through A Phase In Rate Adjustment; And For Approval Of Related Relief Including: (1) Revised Depreciation Rates, Including Cost Of Removal Less Salvage, And Updated Depreciation Expense; (2) Accounting Relief, Including Deferrals And Amortizations; (3) Inclusion Of Capital Investment; (4) Rate Adjustment Mechanism Proposals, Including New Grant Projects Rider And Modified Tax Rider; (5) A Voluntary Residential Customer PowerPay Program; (6) Waiver Or Declination Of Jurisdiction With Respect To Certain Rules To Facilitate Implementation Of The PowerPay Program; (7) Cost Recovery For Cook Plant Subsequent License Renewal Evaluation Project; And (8) New Schedules Of Rates, Rules And Regulations*, Indiana Utility Regulatory Commission, Cause No. 45933, Direct Testimony of Michael P. Gorman at 89-90 and Attachment MPG-10 (Nov. 15, 2023); *Verified Petition Of Southern Indiana Gas And Electric Company D/B/A CenterPoint Energy Indiana South ("CEI South") For (1) Authority To Modify Its Rates And Charges For Electric Utility Service Through A Phase-In Of Rates, (2) Approval Of New Schedules Of Rates And Charges, And New And Revised Riders, Including But Not Limited To A New Tax Adjustment Rider And A New Green Power Rider (3) Approval Of A Critical Peak Pricing ("CPP") Pilot Program, (4) Approval Of Revised Depreciation Rates Applicable To Electric And Common Plant In Service, (5) Approval Of Necessary And Appropriate Accounting Relief, Including Authority To Capitalize As Rate Base All Cloud*

1 Q: **IN THE CURRENT PROCEEDING, WHAT IS THE RATIONALE THAT**

2   **MR. GORMAN CONTENDS IS THE BASIS FOR HIS MODIFYING THE**

3   **WEIGHT THAT HE PLACES ON CONSTANT GROWTH DCF USING**

4   **ANALYSTS' PROJECTED EPS GROWTH RATES?**

5 A. Mr. Gorman supports placing "little weight"[53] on his constant growth DCF that

6   relies on analysts' projected EPS growth rates because the average analysts'

7   projected EPS growth rate exceeds his projected GDP growth rate.

8 Q: **IS THERE ANY MERIT TO THE RATIONALE THAT MR. GORMAN**

9   **PROVIDES FOR MODIFYING HOW HE DETERMINES THE FAIR**

10   **RETURN PRODUCED BY HIS DCF RESULTS?**

11 A. No. As shown in Figure AEB-R-9, the average analysts' projected EPS growth rate

12   in his constant growth DCF analysis has exceeded his estimated GDP growth rate

13   in every one of the ten proceedings shown. Thus, there is no basis for Mr. Gorman's

14   rationale for changing the weight he places on each of his DCF analyses.

Computing Costs And Defer To A Regulatory Asset Amounts Not Already Included In Base Rates That Are Incurred For Third-Party Cloud Computing Arrangements, And (6) Approval Of An Alternative Regulatory Plan Granting CEI South A Waiver From 170 IAC 4-1-16(F) To Allow For Remote Disconnection For Non-Payment, Indiana Utility Regulatory Commission, Cause No. 45990, Direct Testimony of Michael P. Gorman at 80:3-81:20, Attachment MPG-8, and Attachment MPG-13 (Mar. 12, 2024); Gorman Direct at Exhibit MPG-6.

[53] Gorman Direct at 55:2-11.

1 Q: **HOW WOULD THE ROE INDICATED BY MR. GORMAN'S DCF**

2   **MODELS IN THE CURRENT PROCEEDING CHANGE IF HE HAD**

3   **RELIED ON THE APPROACHES THAT HE HAS USED IN PRIOR**

4   **PROCEEDINGS?**

5 A. In the current proceeding, Mr. Gorman contends that his DCF models support an

6   ROE of 9.30 percent, which is based on the mean and median results of his constant

7   growth DCF using sustainable growth rates and his multi-stage DCF models.

8   However, Figure AEB-R-10 summarizes the ROE indicated by the results of

9   Mr. Gorman's DCF analyses in the current proceeding had he used the weighting

10   approaches he has relied on in the other proceedings presented in Figure AEB-R-9.

11   For example, had Mr. Gorman based his recommended fair return from the DCF

12   analyses on the mean and median of his three DCF approaches as he did in Cause

13   No. 45933 for Indiana Michigan Power Company and Docket No. 23-EKCE-775-

14   RTS for Evergy Kansas, the ROE supported by his DCF results in the current

15   proceeding would have been 9.87 percent. Similarly, had Mr. Gorman calculated

16   the ROE indicated by his DCF analyses based on a similar approach that he applied

17   in the Company's last rate proceeding, as well as in a number of other proceedings

18   as shown in in Figure AEB-R-9, whereby he relied on the results of his DCF

19   analysis using analysts' projected EPS growth rates, his recommended ROE would

20   be close to 10.86 percent. Therefore, the changes Mr. Gorman has made to his

21   methodology by not reflecting the full increase in the DCF model results that have

22   occurred over the past two years have artificially lowered the ROE indicated by his

23   DCF models.

1 **Figure AEB-R-10: ROE Indicated by Mr. Gorman's DCF Analyses In the Current**
2 **Proceeding When Applying the Various Weighting Methodologies He Previously**
3 **Used**

Gorman DCF Weighting Methodology	Gorman Recommended ROE Range	Gorman Indicated ROE from DCF
As Filed		
• Avg. of the mean and median DCF results of the sustainable growth and multi-stage DCF models	n/a	9.30%
Alternative 1		
• Avg. of the mean and median DCF results of the constant growth DCF using analysts' projected EPS growth rates	n/a	10.86%
Alternative 2		
• Low end of recommended range set at the high-end result of the constant growth DCF using sustainable growth rates and the multi-stage DCF		
• High-end of recommend range set at the constant growth DCF result	9.50% - 11.10%	10.30%
• Implied DCF recommendation is midpoint range		
Alternative 3		
• Avg. of the mean and median DCF results of the Mr. Gorman's constant growth and multi-stage DCF analyses	n/a	9.87%

4 **Q: SETTING ASIDE THE WAY IN WHICH MR. GORMAN HAS CHANGED**

5 **THE WAY IN WHICH HE WEIGHS THE RESULTS OF HIS DCF**

6 **MODELS TO ESTABLISH HIS ROE RECOMMENDATION, DO YOU**

7 **AGREE WITH MR. GORMAN'S SPECIFICATION OF HIS DCF**

8 **MODELS?**

9 A.   No. I disagree with the assumptions relied upon in Mr. Gorman's constant growth

10   DCF model using sustainable growth rates and his multi-stage DCF model.

1 Q: **WHY DO YOU DISAGREE WITH MR. GORMAN'S CONSTANT**

2 **GROWTH DCF ANALYSIS THAT RELIES ON SUSTAINABLE GROWTH**

3 **RATES?**

4 A. The premise of Mr. Gorman's analysis is that the "sustainable growth rate is based

5 on the percentage of the utility's earnings that is retained and reinvested in utility

6 plant and equipment," and thus the "internal growth methodology is tied to the

7 percentage of earnings retained by the utility and not paid out as dividends."[54]

8 Accordingly, Mr. Gorman's sustainable growth rate calculation assumes that future

9 earnings will increase as the retention ratio (i.e., the portion of earnings not paid

10 out in dividends) increases. However, this assumption that future earnings growth

11 is inversely related to the dividend payout ratio does not necessarily hold in

12 practice. For example, management may decide to (i) conserve cash for capital

13 investments; (ii) manage the dividend payout for the purpose of minimizing future

14 dividend reductions; (iii) manage its capital structure; or (iv) signal future earnings

15 prospects. These decisions can and do influence the dividend payout (and therefore

16 earnings retention) in the near-term, and such decisions have been seen recently in

17 the market. For example, as a result of the economic effects of COVID-19, more

18 than forty S&P 500 companies temporarily suspended their dividends.[55] Counter

19 to Mr. Gorman's assumption, a company's management will alter dividend policy

20 to respond to changes in earnings, and therefore dividend growth will not always

21 reflect earnings growth (and vice versa).

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[54] *Id.* at 45:12-13, 17-18.

[55] Karen Langley, "U.S. Companies Slashed Dividends at Fastest Pace in More Than a Decade," *Wall Street Journal*, (Jul. 8, 2020).

1   **Q:**   **IS THERE ALSO ACADEMIC RESEARCH THAT SUPPORTS YOUR**

2   **CONCLUSION THAT FUTURE EARNINGS GROWTH IS NOT**

3   **INVERSELY RELATED TO THE DIVIDEND PAYOUT RATIO?**

4   **A.**   Yes. Both Zhou and Ruland (2006) and Gwilym, *et al.* (2006) discussed the theory

5   that high dividend payouts (i.e., low retention ratios) are associated with low future

6   earnings growth.[56] Each of these studies also cited Arnott and Asness (2003) that

7   found, over the course of 130 years of data, future earnings growth is associated

8   with high, rather than low payout ratios.[57] Specifically, Arnott and Asness (2003)

9   concluded:

10   Unlike optimistic new-paradigm advocates, we found that low
11   payout ratios (high retention rates) historically precede low earnings
12   growth. This relationship is statistically strong and robust. We found
13   that the empirical facts conform to a world in which managers
14   possess private information that causes them to pay out a large share
15   of earnings when they are optimistic that dividend cuts will not be
16   necessary and to pay out a small share when they are pessimistic,
17   perhaps so that they can be confident of maintaining the dividend
18   payouts. Alternatively, the facts also fit a world in which low payout
19   ratios lead to, or come with, inefficient empire building and the
20   funding of less than-ideal projects and investments, leading to poor
21   subsequent growth, whereas high payout ratios lead to more
22   carefully chosen projects. The empire-building story also fits the
23   initial macroeconomic evidence quite well. At this point, these
24   explanations are conjectures; more work on discriminating among
25   competing stories is appropriate.[58]

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[56] Ping Zhou and William Ruland, "Dividend Payout and Future Earnings Growth," *Financial Analysts Journal*, Vol. 62, No. 3, 2006; Owain Gwilym, James Seaton, Karina Suddason, and Stephen Thomas, "International Evidence on the Payout Ratio, Earnings, Dividends and Returns," *Financial Analysts Journal*, Vol. 62, No. 1, 2006.

[57] Robert Arnott and Clifford Asness, "Surprise: Higher Dividends = Higher Earnings Growth," *Financial Analysts Journal*, Vol. 59, No. 1, January/February 2003. Since the payout ratio is the inverse of the retention ratio, the authors found that future earnings growth is negatively related to the retention ratio.

[58] *Id.*

1   All three studies found that there is a negative, not a positive, relationship between

2   earnings growth rates and retention ratios. As such, Mr. Gorman's reliance on the

3   sustainable growth rates in the constant growth DCF model is not appropriate.

4   Q: **ARE THERE OTHER REASONS WHY YOU BELIEVE THAT**

5   **SUSTAINABLE GROWTH RATES SHOULD NOT BE USED IN THE DCF**

6   **MODEL?**

7   A.   Yes. The use of the sustainable, or retention, growth rates involves estimating

8   investor expectations for four separate variables over the near-term: (1) the

9   retention ratio, reflected as the "b" variable; (2) the expected return on book equity,

10   reflected as the "r" variable; (3) the growth in the number of shares of common

11   equity, reflected as the "s" variable; and (4) the portion of the market-to-book ratio

12   that exceeds unity, reflected as the "v" variable. This means that the growth

13   estimate includes the forecasting error of the four separate variables.

14 Q: **ARE PROJECTED EPS GROWTH RATES THE MOST APPROPRIATE**

15   **GROWTH RATES FOR USE IN THE DCF MODEL?**

16 A.   Yes. There are several reasons why the use of analysts' projected EPS growth rates

17   in the DCF model is the most appropriate assumption:

18   - Earnings are the fundamental determinant of a company's ability to pay
19   dividends, and over the long-term, dividend growth can only be sustained
20   by earnings growth.[59] Therefore, EPS growth rates should be relied on in
21   the DCF analysis, not dividend per share ("DPS") or book value per share
22   ("BVPS") growth rates.

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[59] As noted by Brigham and Houston: "Growth in dividends occurs primarily as a result of growth in earnings per share (EPS). Earnings growth, in turn, results from a number of factors, including (1) inflation, (2) the amount of earnings the company retains and invests, and (3) the rate of return the company earns on its equity (ROE)." Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, at 317 (Concise Fourth Edition, Thomson South-Western, 2004).

1   •   There is significant academic research demonstrating that EPS growth rates
2   are most relevant in stock price valuation.[60] For example, Liu, *et al.* (2002)
3   examined "the valuation performance of a comprehensive list of value
4   drivers" and found that "forward earnings explain stock prices remarkably
5   well" and were generally superior to other value drivers analyzed. Gleason,
6   *et al.* (2012) found that the sell-side analysts with the most accurate stock
7   price targets were those whom the researchers found to have more accurate
8   earnings forecasts.

9   •   Investment analysts report predominant reliance on EPS growth
10   projections. In a survey completed by 297 members of the Association for
11   Investment Management and Research, the majority of respondents ranked
12   earnings as the most important variable in valuing a security (more
13   important than cash flow, dividends, or book value).[61]

14   •   Projected EPS growth rates such as those available from *Yahoo! Finance*
15   and *Zacks* are based on consensus estimates available from multiple
16   sources. In other words, projected EPS growth rates include the
17   contributions of more than one analyst and thus the results are less likely to
18   be biased in one direction or another. Moreover, the fact that projected EPS
19   growth estimates are available from multiple sources on a consensus basis
20   attests to the importance of projected EPS growth rates to investors when
21   developing long-term growth expectations.

22   Therefore, the use of sustainable growth rates by Mr. Gorman ignores all of these

23   factors that demonstrate EPS growth rates are most relevant in stock price

24   valuation.

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[60] *See, e.g.*, Robert S. Harris, "Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return," *Financial Management*, Spring 1986, at 66; James H. Vander Weide and Willard T. Carleton, "Investor growth expectations: Analysts vs. history," *The Journal of Portfolio Management*, Spring, 1988; Robert S. Harris and Felicia C. Marston, "Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts," *Financial Management*, Summer, 1992; Advanced Research Center, "Investor Growth Expectations," Summer 2004; Eugene F. Brigham, Dilip K. Shome and Steve R. Vinson, "The Risk Premium Approach to Measuring a Utility's Cost of Equity," *Financial Management*, Vol. 14, No. 1, Spring, 1985; Dr. Roger A. Morin, *New Regulatory Finance*, Public Utilities Reports, Inc., 2006, at 299-303; Jing Liu, *et al.*, "Equity Valuation Using Multiples," *Journal of Accounting Research*, Vol. 40 No. 1, March 2002; C. A. Gleason, *et al.*, "Valuation Model Use and the Price Target Performance of Sell-Side Equity Analysts," *Contemporary Accounting Research*, September 2011; Bochun Jung, *et al.*, "Do financial analysts' long-term growth forecasts matter? Evidence from stock recommendations and career outcomes," *Journal of Accounting and Economics*, Vol. 53 Issues 1-2, February-April 2012.

[61] Stanley B. Block, "A Study of Financial Analysts: Practice and Theory," *Financial Analysts Journal*, (Jul./Aug. 1999).

1   Q: **WHY DO YOU DISAGREE WITH MR. GORMAN'S MULTI-STAGE DCF**

2   **ANALYSIS?**

3   A.   First, the utility industry is considered a mature industry due to its regulated status

4   and relatively stable demand. Thus, financial projections such as projected EPS

5   growth rates are also likely to be relatively stable over the long-term. The relative

6   stability of the financial forecasts for utilities supports the use of a constant growth

7   DCF model to estimate the cost of equity for a mature industry like utilities.

8   Therefore, the constant growth DCF model is the more appropriate model to

9   estimate the cost of equity for the Company.

10   Second, the introduction of a third stage growth rate simply increases the

11   number of assumptions to be considered – both the absolute level of the third stage

12   of growth and when the model transitions to that growth rate – with each having a

13   significant effect on the results of the multi-stage DCF model.

14   Third, Mr. Gorman's assumed long-term growth rate in his multi-stage DCF

15   is inconsistent with the analyst literature he cites in his testimony.

16   Therefore, for all of these reasons, the results of the constant growth DCF

17   model that rely on analysts' projected EPS growth rates reflect more reasonable

18   estimates of the cost of equity for the Company in this proceeding than

19   Mr. Gorman's specification of the multi-stage DCF model.

20   Q: **WHY IS MR. GORMAN'S ASSUMED LONG-TERM GROWTH RATE IN**

21   **HIS MULTI-STAGE DCF INCONSISTENT WITH THE ANALYST**

22   **LITERATURE HE CITES IN HIS TESTIMONY?**

23   A.   As noted, Mr. Gorman's long-term growth rate in his multi-stage DCF is based on

24   the projected nominal GDP growth rate by *Blue Chip Financial Forecasts*, as

1   supported by other sources of projected nominal GDP growth.[62] However, in his

2   testimony when discussing the long-term growth rate for the multi-stage DCF,

3   Mr. Gorman includes the following quote from the *Ibbotson SBBI 2013 Valuation*

4   *Yearbook*:

5   Another approach to estimating long-term growth rates is to focus
6   on estimating the overall economic growth rate. Again, this is the
7   approach used in the *Ibbotson Cost of Capital Yearbook*. To obtain
8   the economic growth rate, a forecast is made of the growth rate's
9   component parts. Expected growth can be broken into two main
10   parts: expected inflation and expected real growth. By analyzing
11   these components separately, it is easier to see the factors that drive
12   growth.[63]

13   However, Mr. Gorman cites only a portion of the quote and omits the remainder of

14   the discussion, which indicates that his assumed long-term growth rate is

15   inconsistent with the approach recommended by *Ibbotson* for establishing a long-

16   term growth rate:

17   Once the long-term expected inflation rate is estimated, the real
18   growth rate must be determined. The growth rate in real Gross
19   Domestic Product (GDP) for the period 1929 to 2012 was
20   approximately 3.22 percent. Growth in real GDP (with only a few
21   exceptions) has been reasonably stable over time; therefore, its
22   historical performance is a good estimate of expected long-term
23   (future) performance.

24   By combining the inflation estimate with the real growth rate
25   estimate, a long-term estimate of nominal growth is formed.[64]

26   In other words, the *Ibbotson SBBI 2013 Valuation Yearbook* recommends that the

27   long-term growth rate reflect the sum of the long-term historical average real GDP

28   growth rate and the expected inflation rate. As shown on Exhibit AEB-R-10, had

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[62] Gorman Direct at 48:3-51:22.

[63] *Id.* at 50:2-8.

[64] *Morningstar, Inc.*, Ibbotson SBBI 2013 Valuation Yearbook, at 52.

1   Mr. Gorman followed this approach as cited in his testimony, the long-term growth

2   rate would have been 5.49 percent, not 4.10 percent such as he relies on. As a

3   result, Mr. Gorman understates the long-term growth rate that would be consistent

4   with *Ibbotson's* methodology that he cites in his testimony.

5   **Q: MR. GORMAN CLAIMS THAT THE ANALYST GROWTH RATES USED**

6   **IN YOUR CONSTANT GROWTH DCF ANALYSIS ARE "EXCESSIVE."[65]**

7   **IS THERE ANY BASIS TO THIS CHARACTERIZATION?**

8   A.   No. Mr. Gorman's assertion that my average growth rate for the proxy group of

9   5.50 percent is too high is unfounded. As shown in Exhibit AEB-R-10, if

10 Mr. Gorman had developed a long-term growth rate consistent with the approach

11 recommended by *Ibbotson* that he cites in his testimony, the resulting growth rate

12 would be effectively the exact same as the average growth rate for the proxy group

13 in the constant growth DCF. Thus, there is no basis to Mr. Gorman's contention

14 that my proxy group average projected EPS growth rate is substantially greater than

15 the growth rate for nominal GDP, and therefore it is reasonable to assume that it

16 can be sustained in the long-term.

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[65] Gorman Direct at 83:13-15.

1   **Q:**   **MR. GORMAN SUGGESTS THAT THERE IS A WAY TO "CORRECT"**

2   **YOUR DCF MODEL SUCH THAT IT PRODUCES A REASONABLE**

3   **RETURN.[66] IS MR. GORMAN'S PROPOSED "CORRECTION" TO YOUR**

4   **DCF ANALYSIS APPROPRIATE?**

5   **A.**   No. For clarification, Mr. Gorman's correction is simply converting a constant

6   growth DCF model to a multi-stage model and using a 4.10 percent long-term

7   growth rate, which, as noted previously, is inconsistent with the *Ibbotson* approach

8   he cites in his testimony. Therefore, similar to his own multi-stage DCF model, his

9   "correction" to my analysis understates the long-term growth rate. Further,

10   Mr. Gorman's "correction" of my DCF analysis produces mean and median results

11   of 8.61 percent and 8.87 percent, respectively,[67] which are at the extreme low end

12   of any comparably authorized ROE for an electric utility since 1980. As a result,

13   no weight should be given to Mr. Gorman's proposed "correction" to my DCF

14   analysis, which produces self-evidently unreasonably low results.

15   **Q:**   **DO YOU AGREE WITH MR. GORMAN THAT, BASED ON CURRENT**

16   **MARKET CONDITIONS, HIS RECOMMENDED DCF RESULT OF 9.30**

17   **PERCENT IS A REASONABLE ESTIMATE OF THE COMPANY'S COST**

18   **OF EQUITY?[68]**

19   **A.**   No. Mr. Gorman suggests that utility stocks have maintained strong valuations and

20   robust stock prices, which he suggests is a clear indication that utilities have access

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[66] *Id.* at 84:1-11.

[67] *Id.* at Exhibit MPG-20.

[68] *Id.* at 55:1-2, Table 12.

1   to capital markets at low costs.[69] However, the analysis that he presents in his direct

2   testimony contradicts this conclusion. Figure 3 of Mr. Gorman's testimony, which

3   is the quarterly price returns of the NASDAQ, the S&P 500 Index, and the S&P

4   500 Utilities Index, demonstrates that the S&P 500 Utilities Index has

5   underperformed the broader market since 2023. Further, as shown previously

6   herein in Figure AEB-R-3, the total return of the electric utility proxy group has

7   declined by approximately 11.84 percent since January 2023, while the S&P 500

8   Index has increased over 42.22 percent, demonstrating that the current observable

9   market data does not support Mr. Gorman's conclusion.

10   **C. Risk Premium Analyses**

11 **Q: PLEASE SUMMARIZE MR. GORMAN'S RISK PREMIUM ANALYSES.**

12 A.   Mr. Gorman conducts two Risk Premium analyses: one reflecting utility equity risk

13   premia based on authorized electric utility returns relative to yields on 30-year

14   Treasury bonds (referred to herein as his "Treasury Bond Approach"), and one

15   reflecting utility equity risk premia based on authorized electric utility returns

16   relative to yields on Moody's A-rated utility bonds (referred to herein as his "Utility

17   Bond Approach"). Specifically, Mr. Gorman evaluates authorized electric utility

18   returns over the period 1986 through March 2024, and calculates a five-year rolling

19   average of the implied equity risk premium over Treasury bonds (for the Treasury

20   Bond Approach) and A-rated utility bonds (for the Utility Bond Approach) for each

21   year.

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[69] *See e.g.*, Gorman Direct at 10:13-16.

1		For his Treasury Bond Approach, Mr. Gorman concludes that the current equity
2		risk premium is low relative to the historical average, so he uses 95 percent of the
3		average of the historical 5-year rolling average risk premia over Treasury bonds
4		(5.40 percent), which he then adds to his projected yield on 30-year Treasury bonds
5		(4.20 percent), resulting in an estimated cost of equity of 9.60 percent.[70] For his
6		Utility Bond Approach, Mr. Gorman also concludes that the current equity risk
7		premium is low relative to the historical average, so he uses 90 percent of the
8		average of the historical 5-year rolling average risk premia over A-rated utility
9		bonds (3.95 percent), which he then adds to the 13-week average yield as of April
10		19, 2024 on A-rated utility bonds (5.67 percent), resulting in an estimated cost of
11		equity of 9.60 percent.[71]
12	Q:	**IS MR. GORMAN'S RISK PREMIUM METHODOLOGY IN THIS**
13		**PROCEEDING CONSISTENT WITH THE METHODOLOGY IN HIS**
14		**TESTIMONY IN OTHER RECENT PROCEEDINGS?**
15	A.	No. Just as with the arbitrary and inconsistent changes in his DCF analyses
16		previously discussed, Mr. Gorman has also arbitrarily changed both of his Risk
17		Premium approaches in this proceeding relative to the methods that he relied on in
18		two other recent proceedings. In fact, as shown in Figure AEB-R-11, in three
19		separate proceedings in the past three months, Mr. Gorman has changed his Risk
20		Premium methodology in each case. For example, in May 2024 in Docket
21		No. 56165 for his Treasury Bond Approach, Mr. Gorman relied on 100 percent of

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[70] *Id.* at 62:17-23.

[71] *Id.* at 63:1-15.

1   the average of his 5-year historical rolling average risk premia, which was 5.73

2   percent. In the current proceeding, the average of his 5-year historical rolling

3   average risk premia is the exact same (i.e., 5.73 percent); however, Mr. Gorman

4   now arbitrarily contends that he should use 95 percent of his historical average.

5   Similarly, in March 2024 in Cause No. 45990 for his Utility Bond Approach,

6   Mr. Gorman relied on 100 percent of the average of his 5-year historical rolling

7   average risk premia, which was 4.36 percent. In the current proceeding, the average

8   of his 5-year historical rolling average risk premia is nearly the same (i.e., 4.39

9   percent); however, Mr. Gorman now arbitrarily contends that he should use 90

10   percent of his historical average. There is no principled basis for these changes in

11   methodology and such changes can only be viewed as being done in order to

12   arbitrarily derive a specific result.

1   **Figure AEB-R-11: Changes in Mr. Gorman's Risk Premium Methodology Over**
2   **Three Recent Proceedings[72]**

Applicant	Case	Testimony Date	Treasury Bond Approach	Utility Bond Approach
CenterPoint Energy Indiana South	Cause No. 45990	3/12/2024	100% of the average of 5-yr historical rolling average risk premium + projected 30-yr Treasury bond yield	100% of the average of the historical 5-year rolling average risk premia + 13-week average yield on A-rated utility bonds
			5.71% + 4.00% = 9.71%	4.36% + 5.52% = 9.88%
AEP Texas	Dkt No. 56165	5/16/2024	100% of the average of 5-yr historical rolling average risk premium + projected 30-yr Treasury bond yield	Average risk premium since 2023 + 13-week average yield on A-rate utility bonds
			5.73% + 4.00% = 9.73%	4.15% + 5.59% = 9.74%
CenterPoint Houston	Dkt No. 56211	6/19/2024	95% of the average of 5-yr historical rolling average risk premium + projected 30-yr Treasury bond yield	90% of the average of the historical 5-year rolling average risk premia + 13-week average yield on A-rated utility bonds
			(95% x 5.73%) + 4.20% = 9.60%	(90% x 4.39%) + 5.67% = 9.60%

3   **Q: DO YOU AGREE WITH HOW MR. GORMAN ESTIMATES THE RISK**

4   **PREMIUM IN HIS TREASURY BOND AND UTILITY BOND**

5   **APPROACHES?**

6   A. No. I disagree with Mr. Gorman as to *how* to reflect the changing relationship

7   between bond yields and authorized utility returns in estimating the ROE. For

8   example, in his Treasury Bond Approach, Mr. Gorman calculates a rolling

9   historical 5-year average risk premia for each year from 1986 through March 2024,

10 which he then averages again to establish one historical average risk premium, and

11 then takes 95 percent of that average of the historical 5-year averages. To estimate

12 the ROE, Mr. Gorman adds his estimated historical average risk premium to the

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[72] Indiana Utility Regulatory Commission, Cause No. 45990, Direct Testimony of Michael P. Gorman at 88:11-89:6; *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 56165, Direct Testimony of Michael P. Gorman at 60:9-61:12 (May 16, 2024); Gorman Direct at 62:9-63:15.

1   near-term projected yield on the 30-year Treasury bond, meaning his methodology

2   attempts to estimate a forward-looking equity risk premium based on a historical

3   average of 5-year rolling averages of the risk premia. Mr. Gorman's application of

4   the risk premium approach does not take into consideration the relationship

5   between the ROEs and the yield on bonds over time. In addition, as noted,

6   Mr. Gorman also arbitrarily assumes only 95 percent of his average of the historical

7   5-year average risk premia.

8   In order to recognize the relationship between the ROEs and the yield on

9   bonds over time, Mr. Gorman should have developed a regression equation such as

10   I have done in both my direct and rebuttal testimonies as shown in Exhibit AEB-8

11   and Exhibit AEB-R-6, respectively. This regression appropriately reflects the

12   dynamic relationship between authorized returns and Treasury bond yields over an

13   extended period of time that can be used to project the required return using current

14   or projected bond yield and the regression equation. The benefit of conducting a

15   regression equation is that it can be used to estimate a forward-looking equity risk

16   premium that corresponds to *any* interest rate that an analyst wishes to specify.

17   Moreover, a regression equation eliminates the need for arbitrary and inconsistent

18   "adjustments" to the historical risk premium such as Mr. Gorman has applied to

19   both his Treasury Bond and Utility Bond approaches. By specifying the interest

20   rate projected for the time period that CenterPoint Houston's rates from this

21   proceeding will be in effect, one can estimate an equity risk premium (and thus a

22   cost of equity) for the forward-looking time period that corresponds with the rates

23   that are set in this proceeding.

1 Q: HAS MR. GORMAN UNDERSTATED THE RESULTS OF HIS RISK
2 PREMIUM ANALYSIS BY NOT CONSIDERING THE DYNAMIC
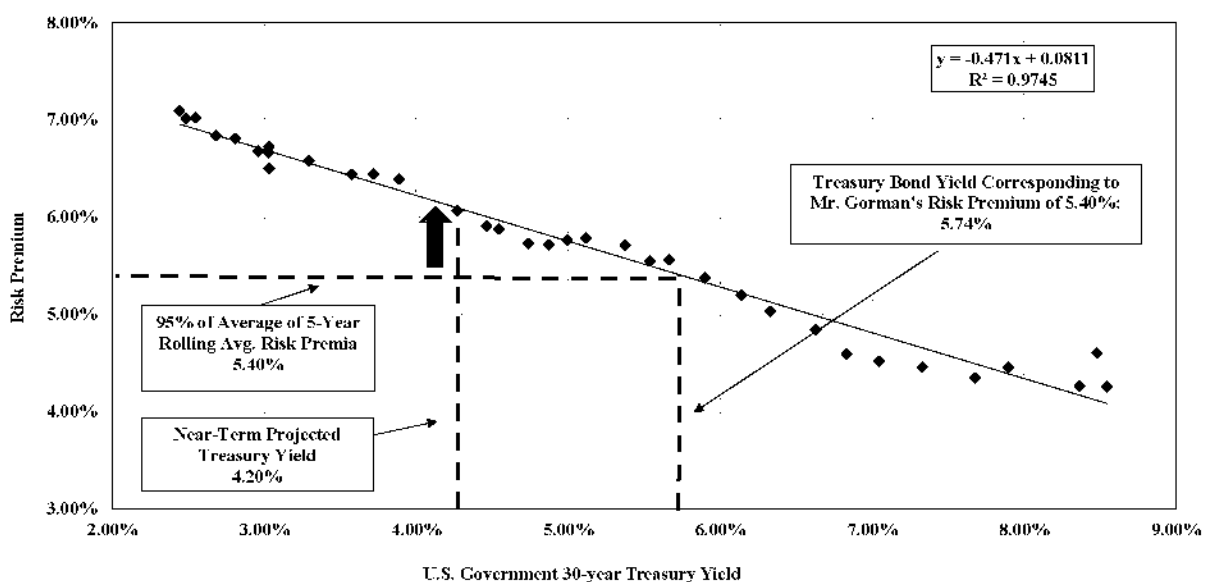3 RELATIONSHIP BETWEEN ROES AND INTEREST RATES?

4 A. Yes. The fundamental misspecification of Mr. Gorman's methodology is that he
5 sums a *projected* or *current* interest rate (i.e., a Treasury bond yield or a utility bond
6 yield, respectively) and a fraction of the average of the historical 5-year rolling
7 average risk premiums from 1986 through 2024 (i.e., 95 percent in his Treasury
8 Bond Approach and 90 percent in his Utility Bond Approach). However,
9 Mr. Gorman's selected risk premium is entirely based on his judgment and is
10 unrelated to the current or projected interest rate that he uses to estimate the cost of
11 equity in his Risk Premium approaches. Therefore, Mr. Gorman invalidates the
12 results of his Risk Premium analyses by failing to appropriately account for the
13 dynamic and highly correlated inverse relationship between risk premia and interest
14 rates that is clearly present in the historical data considered by Mr. Gorman.

15 Q: CAN YOU ILLUSTRATE THE EXTENT TO WHICH MR. GORMAN HAS
16 UNDERSTATED THE COST OF EQUITY RESULTING FROM HIS RISK
17 PREMIUM ANALYSES?

18 A. Yes. Figure AEB-R-12 graphs the relationship between Mr. Gorman's rolling 5-
19 year average Treasury bond risk premia and the rolling 5-year average Treasury
20 bond yields for the period 1986 through March 2024 that he presents on
21 Exhibit MPG-13 for his Treasury Bond Approach. As shown, there is a strong
22 negative relationship between the risk premia and interest rates (i.e., as interest rates
23 increase the risk premium declines and vice versa). In his Treasury Bond
24 Approach, Mr. Gorman uses a risk premium that reflects 95 percent of his historical

1   average Treasury bond risk premium of 5.73 percent (i.e., resulting in a risk

2   premium of 5.40 percent) and adds a near-term projected 30-year Treasury bond

3   yield of 4.20 percent, the sum of which produces his estimated cost of equity of

4   9.60 percent. However, as shown in Figure AEB-R-12, Mr. Gorman's arbitrary use

5   of a risk premium of 5.40 percent corresponds to a historical average 30-year

6   Treasury bond yield of 5.74 percent – or substantially higher than the Treasury bond

7   yield of 4.20 percent on which he relies for his Treasury Bond Approach. Looking

8   at it a different way, as shown in Figure AEB-R-12, a Treasury bond yield of 4.20

9   percent corresponds to a risk premium that is greater than 6.00 percent – or

10   meaningfully higher than the 5.40 percent that Mr. Gorman arbitrarily selects. The

11   amount of Mr. Gorman's understatement of the risk premium in his Treasury Bond

12   Approach is depicted by the red arrow in Figure AEB-R-12. Because Mr. Gorman

13   has significantly understated his risk premium, he in turn also significantly

14   understates the cost of equity result produced by his Treasury Bond Approach.
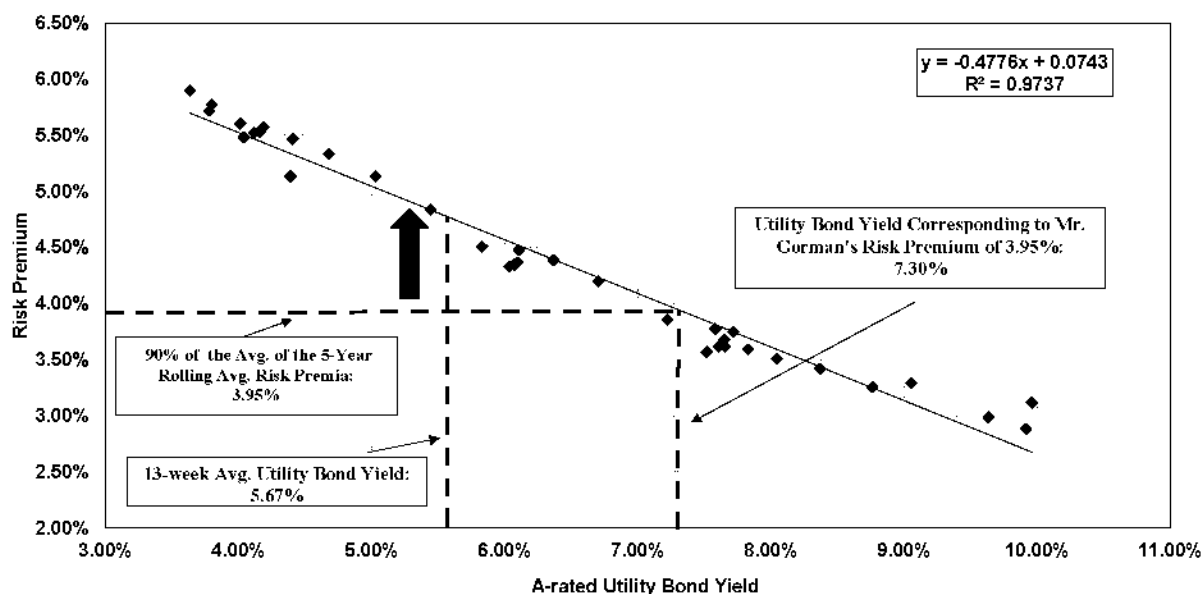
15   **Figure AEB-R-12: Mr. Gorman's Treasury Bond Approach**

$y = -0.471x + 0.0811$
$R^2 = 0.9745$

Treasury Bond Yield Corresponding to Mr. Gorman's Risk Premium of 5.40%: 5.74%

95% of Average of 5-Year Rolling Avg. Risk Premia 5.40%

Near-Term Projected Treasury Yield 4.20%

Risk Premium

U.S. Government 30-year Treasury Yield

1   Q: **DOES MR. GORMAN'S UTILITY BOND APPROACH ALSO**

2   **UNDERSTATE THE COST OF EQUITY?**

3   A. Yes. In the same manner as just discussed regarding Mr. Gorman's Treasury Bond

4   Approach, his Utility Bond Approach also understates the cost of equity.

5   Specifically, in his Utility Bond Approach, Mr. Gorman uses a risk

6   premium that reflects 90 percent of his historical average utility bond risk premium

7   of 4.39 percent (i.e., resulting in a risk premium of 3.95 percent) and adds the 13-

8   week average utility bond yield of 5.67 percent, the sum of which produces his

9   estimated cost of equity of 9.60 percent. However, as shown in Figure AEB-R-13,

10   Mr. Gorman's arbitrary use of a risk premium of 3.95 percent corresponds to a

11   utility bond yield of 7.30 percent – or substantially higher than the utility bond yield

12   of 5.67 percent on which he relies for his Utility Bond Approach. Looking at it a

13   different way, as shown in Figure AEB-R-13, a utility bond yield of 5.67 percent

14   corresponds to a risk premium of approximately 4.75 percent – or meaningfully

15   higher than the 3.95 percent that Mr. Gorman arbitrarily selects. Again, the amount

16   of Mr. Gorman's understatement of the risk premium in his Utility Bond Approach

17   is depicted by the red arrow in Figure AEB-R-13, which means that Mr. Gorman

18   significantly understates the cost of equity result produced by his Utility Bond

19   Approach.

1

Figure AEB-R-13: Mr. Gorman's Utility Bond Approach

2   Q: **HAVE YOU ADJUSTED MR. GORMAN'S RISK PREMIUM ANALYSES?**

3   A.   Yes. I adjusted both Mr. Gorman's Treasury Bond Approach and his Utility Bond

4   Approach so that the results of the analyses account for the inverse relationship

5   between interest rates and the risk premium. For his Treasury Bond Approach, I

6   developed a regression analysis using the following equation which is similar to the

7   equation I relied on for my risk premium analysis:

8                                $$RP = a + b(T) \qquad [1]$$

9   Where:

10   RP = rolling 5-year average Treasury bond risk premia
11   a = intercept term
12   b = slope term
13   T = rolling 5-year average Treasury bond yield

14   As shown in Exhibit AEB-R-11, the regression equation has an R^2 of approximately

15   0.97 and the coefficients were statistically significant at the 99.00 percent level.

16   Using the estimated coefficients, a Treasury bond yield can be input to determine

17   the resulting risk premium and cost of equity. Using Mr. Gorman's near-term

1   projected Treasury bond yield of 4.20 percent, the risk premium would be 6.13

2   percent, and thus the resulting cost of equity is 10.33 percent. In other words, when

3   the inverse relationship between interest rates and the risk premium are

4   appropriately considered, the result of Mr. Gorman's Treasury Bond Approach

5   increases by nearly 75 basis points from 9.60 percent to 10.33 percent.

6   　　　　Similarly, I have adjusted Mr. Gorman's Utility Bond Approach using

7   equation 1 above, but instead of the rolling 5-year average Treasury bond risk

8   premia, I re-estimated the equation using the rolling 5-year average utility bond risk

9   premia. As shown in Exhibit AEB-R-11, using Mr. Gorman's 13-week average A-

10   rated utility bond yield of 5.67 percent, the risk premium would be 4.73 percent,

11   and the resulting cost of equity is 10.40 percent. Again, when the inverse

12   relationship between interest rates and the risk premium are appropriately

13   considered, the result of Mr. Gorman's Utility Bond Approach increases by 80 basis

14   points from 9.60 percent to 10.40 percent.

15   Q: **DO YOU AGREE WITH MR. GORMAN THAT THE RESULTS OF YOUR**

16   **RISK PREMIUM ANALYSIS SHOULD NOT BE CONSIDERED BECAUSE**

17   **IT DOES NOT CONSIDER FACTORS OTHER THAN INTEREST RATES**

18   **THAT INVESTORS CONSIDER IN THE EQUITY RISK PREMIUM?**[73]

19   A.   No. As a threshold matter, while Mr. Gorman criticizes my Risk Premium analysis

20   because it does not consider factors other than interest rates, both of his Risk

21   Premium analyses also only consider long-term interest rates (i.e., either Treasury

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[73] Gorman Direct at 93:3-94:20.

1   bond yields or utility bond yields) in estimating the implied equity risk premia that

2   he relies on for his analysis. Thus, there is no basis for Mr. Gorman's critique.

3   Additionally, Mr. Gorman fails to acknowledge the large body of research

4   that supports the inverse relationship between equity risk premia and interest rates.

5   For example, Berry (1998) came to similar conclusions regarding the inverse

6   relationship between interest rates and the risk premia.[74] Also, as summarized in

7   *New Regulatory Finance*, there has been a recognition that the risk premium is not

8   constant over time:

9   Published studies by Brigham, Shome, and Vinson (1985), Harris
10   (1986), Harris and Marston (1992, 1993), Carleton, Chambers, and
11   Lakonishok (1983), Morin (2005), and McShane (2005), and others
12   demonstrate that, beginning in 1980, risk premiums varied inversely
13   with the level of interest rates—rising when rates fell and declining
14   when interest rates rose. The reason for this relationship is that when
15   interest rates rise, bondholders suffer a capital loss. This is referred
16   to as interest rate risk.... Conversely in low interest rate
17   environments, when bondholders' interest rate fears subside and
18   shareholders' fears of loss of earning power dominate, the risk
19   differential will widen and hence the risk premium will increase.[75]

20   In his more recent textbook, *Modern Regulatory Finance*, Dr. Morin outlines the

21   issues and academic research and concludes the following with respect to the

22   relationship between interest rates and the equity risk premium:

23   This is particularly true in a high inflation environment. Interest
24   rates rise as a result of accelerating inflation, and the interest rate
25   risk of bonds intensifies more than the earnings of common stocks,
26   which are partially hedged from the ravages of inflation. This
27   phenomenon has been termed as a "lock-in" premium. Conversely,
28   in low interest rate environments, when bondholders' interest rate
29   fears subside and shareholders' fears of loss of earnings power

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[74] S. Keith Berry, "Interest Rate Risk and Utility Risk Premia during 1982-93," *Managerial and Decision Economics*, Vol. 19, No. 2, (Mar. 1998).

[75] Dr. Roger A. Morin, *New Regulatory Finance*, Public Utilities Reports, Inc., at 128 (2006).

1   dominate, the risk differential will widen and hence the risk

2   premium will increase.[76]

3   In fact, in discussing the results of the various studies demonstrating the inverse

4   relationship between interest rates and the equity risk premium, Dr. Morin states

5   that "[s]imilar results have been reported by several financial experts who examined

6   the statistical relationship between risk premiums and interest rates using a sample

7   of natural gas utilities," *and cites to, among others, Mr. Gorman's own testimony*

8   *from 2019.*[77]

9 **Q:**   **DOES THE REGRESSION ANALYSIS THAT YOU HAVE CONDUCTED**

10   **FOR YOUR RISK PREMIUM ANALYSIS DEMONSTRATE A STRONG**

11   **INVERSE RELATIONSHIP BETWEEN INTEREST RATES AND THE**

12   **EQUITY RISK PREMIUM?**

13 **A.**   Yes. Consistent with the academic research just discussed, and as shown in

14   Exhibit AEB-8 of my direct testimony, the regression equation for my risk analysis

15   has an R^2 of approximately 0.84, which means that 84 percent of the variation in

16   historical implied utility equity risk premia can be explained by changes in interest

17   rates. This is similar to the regression equation of my updated Risk Premium

18   analysis in Exhibit AEB-R-6 as well. Therefore, the regression indicates that there

19   indeed exists a strong negative correlation between utility equity risk premia and

20   interest rates, and that the regression equation is an effective tool for predicting

21   authorized ROEs at specified interest rate levels, whether current or projected

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[76] Dr. Roger A. Morin, *Modern Regulatory Finance*, Public Utilities Reports, Inc., at 146, (2021); graphic referenced in cite and shown in text has been omitted.

[77] *Id.* at 145.

1   interest rates are utilized. As a result, I recommend that the Commission consider

2   the results of my Risk Premium analyses when determining the authorized ROE for

3   the Company in this proceeding.

4   **D.   CAPM Analyses**

5   **Q: PLEASE SUMMARIZE MR. GORMAN'S CAPM ANALYSES.**

6   A.   Mr. Gorman conducts two forms of the CAPM analysis, which he refers to as the

7   "Current Market Risk Premium" and the other as the "Normalized Market Risk

8   Premium." Specifically, for the "Current Market Risk Premium Approach,"

9   Mr. Gorman's CAPM analysis is based on the following inputs: (i) a risk-free rate

10   that is the 13-week average of the 30-year Treasury yield as of May 17, 2024 of

11   4.51 percent; (ii) the current average beta of the proxy group of 0.93; and (iii) a

12   market risk premium of 6.91 percent, which is based on a market return of 11.42

13   percent (i.e., the long-term historical arithmetic average real return of the S&P 500

14   from 1926 through 2023 based on data reported by *Morningstar Direct* of 9.02

15   percent plus a projected inflation rate based on the GDP Deflator of 2.20 percent as

16   reported by *Blue Chip Financial Forecasts* as of May 1, 2024) minus the current

17   risk-free rate of 4.51 percent. [78]

18   For the "Normalized Market Risk Premium," Mr. Gorman's CAPM

19   analysis is based on the following inputs: (i) a near-term projected risk-free rate

20   from *Blue Chip Financial Forecasts* as of May 1, 2024 of 4.20 percent; (ii) a beta

21   estimate of 0.77 that reflects the "normalized historical beta estimate" for his proxy

22   group; and (iii) a market risk premium of 7.22 percent, which is based on the same

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[78] Gorman Direct at 69:1-21.

1   market return of 11.42 percent as in "Current Market Risk Premium Approach,"

2   but minus the near-term projected risk-free rate of 4.20 percent.[79] The result of

3   Mr. Gorman's "Current Market Risk Premium" CAPM is 10.93 percent, and the

4   result of his "Normalized Market Risk Premium" CAPM is 9.75 percent.

5   Mr. Gorman rejects the result of his "Current Market Risk Premium"

6   CAPM on the basis that the beta estimate is abnormal and not reflective of the

7   investment risk of utility companies.[80] Therefore, Mr. Gorman concludes that the

8   most reasonable CAPM result would be 9.75 percent, which is the result of his

9   Normalized Market Risk Premium approach.[81]

10   Q: **DO YOU AGREE WITH THE MANNER IN WHICH MR. GORMAN HAS**

11   **CALCULATED THE MARKET RETURN FOR PURPOSES OF HIS CAPM**

12   **ANALYSES?**

13   A.   No. Mr. Gorman's calculation does not result in a "forward-looking" estimate of

14   the return on the market. Mr. Gorman's market return calculation simply applies a

15   projected inflation rate to a long-term historical average market return, which does

16   not result in a "forward-looking" market return. Mr. Gorman provides no evidence

17   that the historical average market return is reflective of the expected market

18   conditions during the period in which the Company's proposed rates will be in

19   effect. Although the historical average real return of large company stocks from

20   1926 through 2023 is reflective of the returns realized by investors under different

21   market and economic conditions over that period, it is not reasonable to simply

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[79] *Id.*

[80] *Id.* at 72:6-7.

[81] *Id.*

1   inflate that average and assume that it reflects the expected forward-looking market

2   return in the current and expected market environment and the period in which rates

3   established in this proceeding will be in effect.

4   As discussed previously herein, interest rates have increased significantly

5   over the past two years, and currently are expected to remain elevated over at least

6   the next year. Furthermore, over the past year, the Federal Reserve has significantly

7   increased the federal funds rate and reduced its holding of Treasuries and mortgage-

8   backed securities in an effort to reduce inflation. However, as Mr. Gorman has

9   acknowledged, inflation has remained elevated,[82] which increases the likelihood

10   that the Federal Reserve will continue to keep monetary policy at a restrictive level

11   over the near-term. This results in greater uncertainty (overall higher risk) in the

12   market because of the lagged effect of the Federal Reserve's policies on the

13   economy. In fact, as I will discuss in more detail, the Federal Reserve Bank of New

14   York published a study in 2015 evaluating a number of models used to estimate the

15   market risk premium in which they concluded that the market risk premium is

16   higher during periods of increased inflation.[83] Therefore, the *average* historical

17   real return of large company stocks that Mr. Gorman relies on to calculate his

18   market return is not reflective of current market conditions and their effect on the

19   investor return requirement.

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[82] *Id.* at 58:1-16.

[83] Fernando Duarte and Carla Rosa, "The Equity Risk Premium: A Review of Models," Federal Reserve Bank of New York, at 50 (2015).

1 Q: IS THERE SUPPORT IN OTHER JURISDICTIONS FOR THE USE OF A

2   FORWARD-LOOKING MARKET RETURN AND MARKET-RISK

3   PREMIUM IN THE CAPM ANALYSIS SUCH AS YOU HAVE RELIED

4   UPON?

5 A.   Yes. Various regulatory commissions have supported the use of a constant growth

6   DCF model to estimate the market return in the CAPM such as I have done. For

7   example, in Opinion No. 569-A, the FERC continued to support the use of the

8   constant growth DCF model to calculate the market return for the CAPM noting:

9   We also continue to find that the CAPM should use a one-step DCF
10   for its risk premium. This is because the rationale for using a two-
11   step DCF methodology for a specific group of utilities does not
12   apply when conducting a DCF study of the dividend-paying
13   companies in the S&P 500, as the Commission found in Opinion
14   Nos. 531-B and 569.172 A long-term component is unnecessary
15   because of the regular updates to the S&P 500, which allows it to
16   continue to grow at a short-term growth rate and because S&P 500
17   companies include stocks that are both new and mature, the latter of
18   which have a moderating effect on the short-term growth rates.[84]

19   Likewise, various state utility regulatory commissions have also supported the use

20   of a constant growth DCF model to estimate the market return in the CAPM. As

21   shown in Figure AEB-R-14, the Staff of the Illinois Commerce Commission

22   ("ICC"), the Bureau of Investigation and Enforcement ("I&E") of the Pennsylvania

23   Public Utility Commission ("Pennsylvania PUC"), and the Staff of the Maine

24   Public Utilities Commission ("Maine PUC") have each supported the forward-

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[84] *Ass'n. of Businesses Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154 at 85 (2020). While this case has been remanded to the FERC, the issue addressed by the Supreme Court relates to FERC's justification of the use of the Risk Premium methodology in estimating the cost of equity and establishing the ROE, not the calculation of the market return in the CAPM. The FERC's decision with respect to the calculation of the market return in the CAPM is not in question in the remand.

1   looking market risk premium, and the market return estimates using the constant

2   growth DCF model. In each of these cases, the respective regulatory commission

3   relied on the estimated CAPM results by these parties to determine the authorized

4   ROE and did not dispute the use of the constant growth DCF model to calculate the

5   market return.

6   **Figure AEB-R-14: Examples of Jurisdictions Where Market Return Estimated**
7   **Using the Constant Growth DCF Model**

Intervening Party	Applicant	Docket No.	Approach of Intervening Party to Calculating the Market Return	Date of Order	Did the Commission Rely on the Intervening Party's CAPM?
Staff of the ICC	North Shore Gas Company	20-0810	CGDCF of the dividend-paying companies in the S&P 500 (11.95%)[85]	9/8/21	Yes[86]
I&E	Aqua Pennsylvania, Inc.	R-2021-3027385	CGDCF of the Value Line Universe and S&P 500 (12.14%)[87]	5/12/22	Yes, the regulator placed primary weight on I&E's CAPM[88]
Staff of the Maine PUC	Northern Utilities, Inc.	2019-00092	CGDCF of the dividend-paying companies in the S&P 500 (11.33%-13.49%)[89]	4/1/20	Yes[90]

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[85] *North Shore Gas Company Proposed Increase in Rates for Gas Distribution Service*, Illinois Commerce Commission, Docket No. 20-0810, Order at 71 (Sept. 8, 2021).

[86] *Id.* at 86-87.

[87] *Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc.*, Pennsylvania Public Utility Commission, Docket No. R-2021-3027385, Opinion and Order at 147 (May 16, 2022).

[88] *Id.* at 178.

[89] *Northern Utilities, Inc. d/b/a Unitil Request for Approval of Rate Change*, Maine Public Utilities Commission, Docket No. 2019-00092, Bench Analysis at 21 (Oct. 29, 2019).

[90] *Id.*, Order Part II at 58 (Apr. 1, 2020).

1   Q: DO YOU AGREE WITH MR. GORMAN'S CHARACTERIZATION OF

2   THE RISK OF THE UTILITY SECTOR THAT HE USES TO JUSTIFY HIS

3   SOLE RELIANCE ON HIS "NORMALIZED" MARKET RISK PREMIUM

4   ANALYSIS?

5   A.   No. Mr. Gorman suggests that the current beta of approximately 0.93 is not

6   appropriate to be relied upon because they are not reflective of the low investment

7   risk of utilities.[91] However, as discussed previously, Mr. Gorman's perception

8   about the access to low-cost capital for utilities is not based on current market data.

9   As shown previously in Figure AEB-R-3, utility stocks have significantly

10   underperformed the broader market since January 2023, with the utility sector

11   having experienced negative return since that time.

12   Furthermore, while Mr. Gorman states that utilities have maintained

13   investment grade credit strength,[92] a review of his own analyses demonstrate that

14   utility credit ratings have been declining over time. As shown in Table 1 of

15   Mr. Gorman's testimony, as of 2020, 67 percent of utilities had credit ratings of A-

16   or higher (i.e., 53 percent at A- and 14 percent at A or higher). However, as of

17   2024, only 43 percent of utilities have credit ratings of A- or higher (i.e., 32 percent

18   at A- and 11 percent at A or higher). The downgrades that have occurred since that

19   2020 have resulted in an increase in the proportion of BBB+ ratings from 19 percent

20   in 2020 to 44 percent in 2024, as well as an increase in the proportion of BBB

21   ratings from 3 percent to 13 percent. Therefore, while Mr. Gorman focuses on the

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[91] Gorman Direct at 72:5-7.

[92] Id. at 11:7-9.

1   fact that a substantial portion of the utilities covered by S&P have a credit rating of

2   BBB+ or higher, he fails to recognize the significant change in utility credit quality

3   and increase in the number of downgrades over the past three years.

4   Finally, it is important to recognize that the sector has substantial capital

5   investment requirements, which Mr. Gorman acknowledges in Figure 2 of his

6   testimony. However, these capital expenditures will require significant access to

7   capital and place increasing strain on credit metrics. For these reasons, it is not

8   credible for Mr. Gorman to suggest that utilities do not face increasing risk.

9 Q: **HAVE YOU ADJUSTED MR. GORMAN'S CAPM ANALYSES TO**

10   **ADDRESS THE ISSUES THAT YOU HAVE IDENTIFIED?**

11 A. Yes. As shown in Exhibit AEB-R-12, I have updated both of Mr. Gorman's CAPM

12   analyses to: (1) rely on current beta estimates using the most recent period starting

13   in May 2020 (i.e., excluding the effect of the pandemic); and (2) calculate the

14   market return as the average of Mr. Gorman's historical based market return of

15   11.42 percent and my updated forward-looking market return estimate of 12.65

16   percent. As shown in this exhibit, the effect of these changes is a cost of equity

17   range of 10.39 percent (Normalized Market risk Premium Approach) to 10.45

18   percent (Current Market risk Premium Approach).

19 Q: **WHAT ARE THE CONCERNS THAT MR. GORMAN EXPRESSES**

20   **REGARDING YOUR CAPM ANALYSES?**

21 A. Mr. Gorman states that he has two concerns with my CAPM analyses. First, Mr.

22   Gorman states that my CAPM and risk premium studies are based on projected

1   interest rates that he contends are "highly uncertain."[93]   Second, Mr. Gorman

2   contends that the market return, and thus market risk premium, used in my CAPM

3   analyses are overstated and do not reflect a reasonable estimate of the expected

4   return on the market.[94]

5 Q: **IS THE CONCERN THAT MR. GORMAN EXPRESSES REGARDING**

6   **YOUR RELIANCE ON LONG-TERM PROJECTED INTEREST RATES**

7   **CREDIBLE?**

8 A.   No. While Mr. Gorman attempts to impugn the use of long-term projected interest

9   rates, he himself relies on near-term projections from the same source that I rely

10   upon in my direct testimony (i.e., the *Blue Chip Financial Forecast*). Further, in

11   Table 2 of Mr. Gorman's direct testimony, he summarizes the 2-year and 5- to 10-

12   year projected interest rates published by the *Blue Chip Financial Forecast* and

13   relies on this data as the foundation for his views that interest rates will decline over

14   the period that rates in this case will be in effect, and that these projections should

15   be considered in setting the ROE in this proceeding.[95]

16   It is important to note that the use of short-term and long-term projections

17   is a reversal of Mr. Gorman's long-standing position in testimony where he

18   criticized the use of projected interest rates and favored the use of current interest

19   rate in the estimation of the ROE. Mr. Gorman's critique of my analysis based on

20   the "uncertainty" of the long-term projections cannot be considered valid when he

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[93] *Id.* at 78:10-11.

[94] *Id.* at 84:13-85:10.

[95] Gorman Direct at 15:1-18:(Table 3).

1   then relies on projections from the same data source for the same time-period in his

2   analysis.[96]

3   Q: IS THERE ANY BASIS TO MR. GORMAN'S CRITIQUE OF THE

4   MARKET RETURN AND MARKET RISK PREMIA USED IN YOUR

5   CAPM ANALYSES?

6   A.   No, there are multiple reasons why there is no basis to Mr. Gorman's contention

7   regarding the market return and market risk premia used in my CAPM analyses.

8   First, as shown in Figure AEB-14 of my direct testimony, an expected

9   market return of 12.22 percent is reasonable given that the realized total equity

10   return was at least at this level or greater in 51 out of the past 97 years (i.e., 53

11   percent). As reflected in Exhibit AEB-R-5, the forward-looking market return has

12   increased slightly since the filing of my direct testimony and is currently 12.65

13   percent; however, the realized total equity return historically has still been greater

14   than in more than 50 percent of the years.

15   Second, in a cost of capital proceeding for the electric utilities in California,

16   the California Public Utilities Commission ("CPUC") noted that all parties

17   recognized historical market returns, and economically logical projections, fall

18   within the range of 12 percent.[97]

---

[96] Id.

[97] Application of Pacific Gas and Electric Company for Authority to Establish its Authorized Cost of Capital for Utility Operations for 2023 and to Reset the Cost of Capital Adjustment Mechanism, California Public Utilities Commission, Application No. 22-04-008 consol., Decision No. 22-12-031 at 23 (Dec. 15, 2022).

1   Third, as discussed previously and shown in Figure AEB-R-14, various

2   state utility regulatory commissions have also supported the use of a constant

3   growth DCF model to estimate the market return in the CAPM.

4   Fourth, the Federal Reserve Bank of New York published an analysis in 2015

5   that reviewed 20 methodologies over the period 1960 through 2013 for estimating

6   the market risk premium. The results of this study demonstrate that my market risk

7   premium estimates, which, as shown on in Exhibit AEB-R-3 of my updated cost of

8   equity analyses, are in the range of 8.15 percent to 8.35 percent, are reasonable.

9   Specifically, the key conclusions from this study are:

10
11   • The 20 methodologies reviewed reflected a range for the market risk premium of between -1.0 percent to 14.5 percent.

12
13
14
15   • As shown in Figure AEB-R-15, the principal component analysis of the 20 models (i.e., the bold black line) produced a range for the market risk premium of approximately 0 percent to over 10 percent from 1960 through 2013.

16
17   • The one-year-ahead market risk premium was consistently greater than 10 percent following the financial crisis of 2008/09.

1   **Figure AEB-R-15: The Federal Reserve Bank of New York, One-Year-Ahead**
2   **Market Risk Premium**[98]
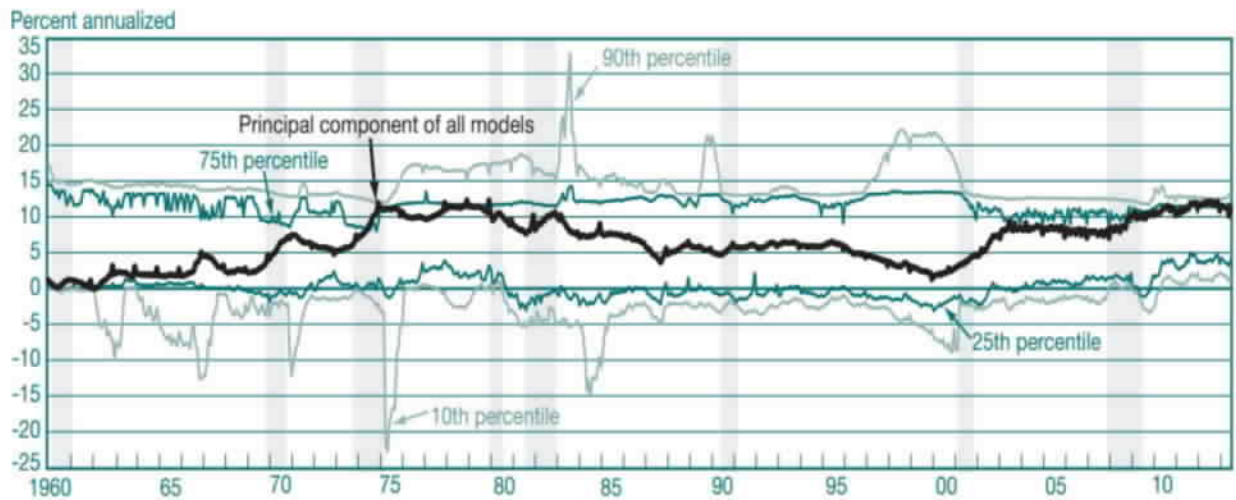
3   Further, the Federal Reserve Bank of New York also noted the following:

4   Figure 2 shows the first principal component of all twenty models
5   in black (the black line is the same principal component shown in
6   black in each of the panels of Chart 1). *As expected, the principal*
7   *component tends to peak during financial turmoil, recessions, and*
8   *periods of low real GDP growth or high inflation.* It tends to
9   bottom out after periods of sustained bullish stock markets and high
10   real GDP growth. Evaluated by the first principal component, the
11   one-year ahead ERP [*equity risk premium*] reaches a local peak in
12   June 2012 at 12.2 percent. The surrounding months have ERP
13   estimates of similar magnitude, with the most recent estimate in
14   June 2013 at 11.2 percent. This behavior is not so clearly seen by
15   simply looking at the collection of individual models in Chart 1, a
16   finding that highlights the usefulness of principal component
17   analysis. Similarly high levels were observed in the mid- and late
18   1970s, during a period of stagflation, while the recent financial crisis
19   had slightly lower ERP estimates, closer to 10 percent.[99]

20   Thus, the Federal Reserve Bank of New York noted that the market risk premium

21   is higher during periods of increased inflation. As discussed at length in my direct

---

[98]   Fernando Duarte and Carla Rosa, "The Equity Risk Premium: A Review of Models," Federal
Reserve Bank of New York at 33 (Figure 2).

[99]   *Id.* at 15 (emphasis and clarification added).

1   testimony as well as herein, inflation remains well above the Federal Reserve's

2   target of 2 percent and is expected to remain elevated over the near term. Given

3   the results of the analysis conducted by the Federal Reserve Bank of New York, it

4   is clear that my estimates of the market risk premium are reasonable.

5   Q: **HAS THE CONCERN REGARDING THE USE OF A CONSTANT**

6   **GROWTH DCF MODEL THAT RELIES ON PROJECTED EPS GROWTH**

7   **RATES TO ESTIMATE THE MARKET RETURN BEEN ADDRESSED BY**

8   **THE COURT?**

9   A.   Yes. In its review of the FERC's Opinion No. 569-B, the U.S. Court of Appeals

10   for the District of Columbia addressed the concern regarding the use of projected

11   EPS growth rates in a constant growth DCF model to estimate the market return.

12   In the Court's decision, it acknowledged that the FERC has relied on the use of EPS

13   growth rates in the calculation of the market return on the S&P 500 because the

14   S&P 500 is regularly updated to include companies with high market capitalization

15   and it includes companies at all stages of growth, including lower and higher

16   growth potential. The Court determined that FERC's rationale for using projected

17   EPS growth rates was sufficient and did not accept the challenge to this

18   assumption.[100]

---

[100] *MISO Transmission Owners et al. v. FERC*, 45 F.4th 248, 260 (D.C. Cir. 2022).

1 Q: IS MR. GORMAN'S CRITICISM OF THE GROWTH RATE ASSUMED IN

2 YOUR MARKET RETURN CALCULATION CONSISTENT WITH HIS

3 OWN COST OF EQUITY ANALYSES?

4 A. No. While Mr. Gorman and I have estimated the market return using different

5 approaches, the implied growth rates in both of our market return calculations

6 exceed Mr. Gorman's long-term GDP growth outlook of 4.10 percent. As noted

7 previously, Mr. Gorman's market return is 11.42 percent. Thus, assuming a

8 dividend yield on the S&P 500 of 1.58 percent as reflected in Exhibit AEB-R-5,

9 Mr. Gorman's implied growth rate of the market would be 9.76 percent,[101] which

10 clearly significantly exceeds his long-term GDP growth outlook as well as the

11 estimates of capital appreciation that he uses as a benchmark for the growth rate

12 estimate used in my analysis.[102] Therefore, it is simply not credible for Mr. Gorman

13 to argue that the forward-looking, DCF-derived market return in my CAPM should

14 be rejected on the basis that it is higher than estimates of his long-term GDP growth

15 rate when the implied market return in his CAPM is significantly higher than the

16 estimate of long-term GDP growth rate that he relies on in his multi-stage DCF

17 analysis.

18 Q: DOES MR. GORMAN PROPOSE TO MODIFY YOUR CAPM ANALYSIS?

19 A. Yes. Mr. Gorman "revises" my CAPM analysis by substituting his market return

20 and near-term projected risk-free rate of 4.20 percent in my CAPM analysis.[103]

_____

[101] Mr. Gorman's implied long-term market EPS growth rate in the CAPM equals (Market Return – Avg. Dividend Yield of Market) / (0.5 x Avg. Dividend Yield of Market + 1).

[102] Gorman Direct at 86:12-22.

[103] Id. at 88:7-16.

1 **Q:** **IS MR. GORMAN'S "REVISION" REASONABLE OR APPROPRIATE?**

2 **A.** No, for the reasons that I have already discussed regarding Mr. Gorman's

3   historically-based market return and the inconsistencies of his criticisms regarding

4   my CAPM analyses when those same criticisms apply to his own analyses. There

5   is no basis for Mr. Gorman's "revisions" to my CAPM analyses.

6   **E. ECAPM Analyses**

7 **Q:** **WHAT IS MR. GORMAN'S POSITION REGARDING YOUR ECAPM**

8   **ANALYSES?**

9 **A.** Mr. Gorman contends that the use of an adjusted beta in the ECAPM is duplicative

10   and thus overstates the cost of equity. In addition, Mr. Gorman claims that my use

11   of an adjusted beta as published by *Value Line* in the ECAPM is inconsistent with

12   the academic research that he is aware of supporting the development of the

13   ECAPM. Mr. Gorman also states that, in his experience, regulatory commissions

14   generally disregard the ECAPM when an adjusted beta is used in the model.[104]

15 **Q:** **IS IT APPROPRIATE TO USE ADJUSTED BETAS IN THE ECAPM?**

16 **A.** Yes, it is entirely appropriate to use adjusted betas in the ECAPM, and doing so is

17   consistent with academic literature and the estimation of the ECAPM in this manner

18   has been accepted by various regulatory commissions. There is no merit to any of

19   Mr. Gorman's contentions regarding the ECAPM.

---

[104] *Id.* at 89:13-92:24.

1   Q: **WHAT IS THE PURPOSE OF USING ADJUSTED BETAS IN THE**

2   **ECAPM?**

3   A.   The purpose of adjusting beta in the CAPM is to account for the tendency of beta

4   to trend back over time to the market beta of 1.00. As noted by Mr. Gorman, the

5   betas published by *Value Line* include this adjustment, which was first proposed by

6   Marshall E. Blume in 1975.[105] The use of adjusted betas in the CAPM is important

7   because if beta trends towards 1.00, as Blume noted, then the adjusted beta will be

8   more reflective of the beta that can be expected over the near-term. This is equally

9   important in the specification of the CAPM in this case since the cost of equity for

10   the Company is being estimated over the near term.

11   The ECAPM does not account for the tendency of beta to trend toward 1.00.

12   The purpose of the ECAPM is to account for the fact that the risk-return relationship

13   is flatter than what is estimated by the CAPM, ***even when using adjusted betas***.

14   While beta is not observable and must be estimated, the theory behind the ECAPM

15   is that even if the true value of a stock's beta were observable, the CAPM would

16   understate the results for stocks with betas less than 1.00 and overstate the results

17   for stocks with betas greater than 1.00. Therefore, contrary to Mr. Gorman's

18   assertion, the purpose of each adjustment is different and thus applying both

19   adjustments in the ECAPM is not duplicative.

---

[105] Marshall E. Blume, "Betas And Their Regression Tendencies," *The Journal of Finance*, Vol. 30, No. 3, at 785-795 (1975).

1   Q: CAN YOU DEMONSTRATE THAT USING ADJUSTED BETAS IN THE

2   CAPM AND RELYING ON THE ECAPM ARE TWO DISTINCT

3   ADJUSTMENTS TO THE CAPM?

4   A.   Yes. Figure AEB-R-16 demonstrates the point that adjusting betas and adjusting

5   the slope of the risk/return relationship through the ECAPM are two distinct

6   adjustments and are not duplicative as alleged by Mr. Gorman. As shown, when

7   beta is adjusted in the CAPM to recognize that betas revert to the market mean of

8   1.0 over time, the resulting adjustment is shown by the red arrow in the lower right-

9   hand corner. Separately, when the ECAPM is employed to recognize that the

10   risk/return relationship is flatter than predicted by the CAPM, the resulting

11   adjustment is shown by the green arrow in the lower right-hand corner. To the

12   extent that a company with a beta greater than 1.0 were being evaluated, the same

13   process of two separate adjustments would apply, albeit in the opposite direction

14   from what is shown in Figure AEB-R-16, and would result in a decrease in the cost

15   of equity otherwise predicted by the CAPM.

Figure AEB-R-16: Risk/Return Relationship between CAPM and ECAPM
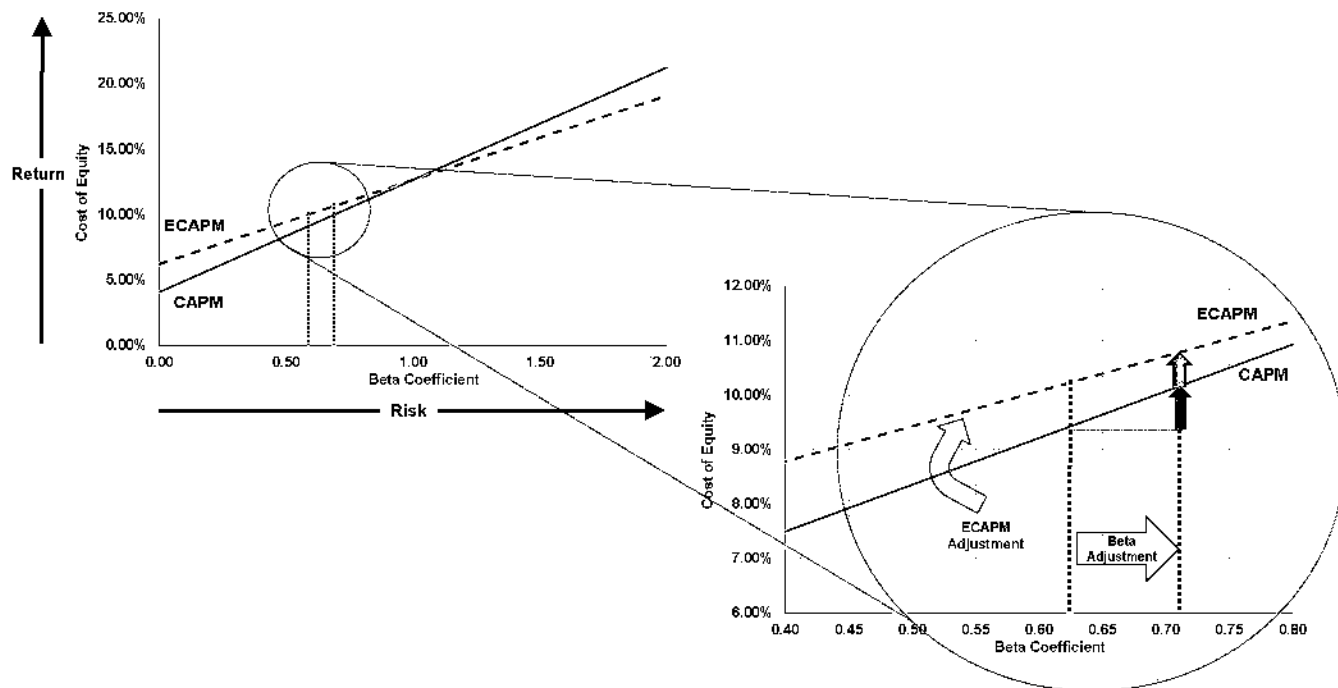
2 Q: **IS MR. GORMAN CORRECT THAT THE USE OF ADJUSTED BETAS IN**

3   **THE ECAPM IS INCONSISTENT WITH ACADEMIC RESEARCH?**

4 A.   No. Mr. Gorman cites two academic studies to support his conclusion that the use

5   of adjusted betas in the ECAPM is inappropriate.[106] However, I have reviewed

6   each of the cited articles and neither concludes that the use of adjusted betas in the

7   ECAPM is inappropriate. The Black, Jensen and Scholes (1972) study cited by

8   Mr. Gorman was developed to test the effectiveness of the CAPM at predicting

9   returns.[107] The Black (1993) study is an update to the 1972 study.[108] To test the

10   validity of the CAPM, Black, Jensen, and Scholes (1972) used historical data and

---

[106] Gorman Direct at 89 n.68.

[107] Fischer Black, Michael C. Jensen, and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," (1972).

[108] Fischer Black, "Beta and Return," *The Journal of Portfolio Management*, at 8-18 (Fall 1993).

1   ten different stock portfolios, which were developed based on each stock's beta to

2   estimate the following equation:[109]

$$K_e - r_f = \alpha + \beta(r_m - r_f) \qquad [2]$$

4   Where:

5   K_e = the required market ROE;

6   α = the constant term;

7   β = beta coefficient of an individual security;

8   r_f = the risk-free ROR; and

9   r_m = the required return on the market as a whole.

10   The purpose was to estimate the constant term for each of the ten portfolios. If the

11   CAPM were to accurately predict the risk premium of the different stock portfolios,

12   the constant term, or α, would equal zero. However, Black, Jensen, and Scholes

13   (1972) found that generally the constant term was positive for the stock portfolios

14   with beta less than 1.0 and negative for the stock portfolios with beta greater than

15   1.0. These findings were also supported in the updated analysis conducted by Black

16   (1993). Therefore, these two studies cited by Mr. Gorman provide empirical

17   support for the use of ECAPM.

18   Q: **WERE ADJUSTED BETAS USED IN THE BLACK, JENSEN, AND**

19   **SCHOLES (1972) AND BLACK (1993) STUDIES?**

20   A.   Not specifically. Black, Jensen, and Scholes (1972) did not use the formula

21   employed by *Value Line* to adjust the betas used in the regression equation;

22   however, the study did consider that betas may not be stationary over the study

23   period. In fact, Black, Jensen, and Scholes (1972) noted:

---

[109] Fischer Black, Michael C. Jensen, and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests," (1972).

1　　　　　　　The group assignment procedure just described will be satisfactory
2　　　　　　　as long as the coefficients βj are stationary through time. Evidence
3　　　　　　　presented by Blume (1968) indicates this assumption is not totally
4　　　　　　　inappropriate, but we have used a somewhat more complicated
5　　　　　　　procedure for grouping the firms which allows for any non-
6　　　　　　　stationarity in the coefficients through time.[110]

7　　　Therefore, the study did account for the fact that beta may not be stationary over

8　　　time in the development of the data used to estimate Equation 2 above.

9　Q:　**HAVE YOU PREVIOUSLY PRESENTED OTHER ACADEMIC STUDIES**

10　　　**TO MR. GORMAN THAT HAVE USED ADJUSTED BETAS TO**

11　　　**ESTIMATE THE ECAPM?**

12　A.　Yes. While Mr. Gorman claims that relying on adjusted betas in the ECAPM is

13　　　inconsistent with academic research of which he is aware that supports the ECAPM,

14　　　I have referenced two studies in prior rate proceedings in response to Mr. Gorman

15　　　that address this concern.[111] Both the Chrétien and Coggins (2011) study and the

16　　　Litzenberger, Ramaswamy, and Howard (1980) study relied on adjusted betas.[112]

17　　　Further, Mr. Gorman's concern with the ECAPM analysis is also addressed directly

18　　　by Dr. Roger Morin in his 2021 text *Modern Regulatory Finance* as follows.

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[110] *Id.*

[111] See e.g., *Petition Of Indiana-American Water Company, Inc. For (1) Authority To Increase Its Rates And Charges For Water And Wastewater Utility Service Through A Three-Step Rate Implementation, (2) Approval Of New Schedules Of Rates And Charges Applicable To Water And Wastewater Utility Service, Including A New Universal Affordability Rate, (3) Approval Of Revised Depreciation Rates Applicable To Water And Wastewater Plant In Service, (4) Approval Of Necessary And Appropriate Accounting Relief, (5) Approval Of The Extension Of Service To An Infrastructure Development Zone In Montgomery County, Indiana And Authority To Implement A Surcharge Under Ind. Code § 8-1-2-46.2, And (6) Approval Of Petitioner's Plans To Develop Future Water Sources Of Supply Under Ind. Code § 8-1-2-23.5*, Indiana Utility Regulatory Commission, Cause No. 45870, Rebuttal Testimony of Ann E. Bulkley at 74:17-75:19 (Aug. 8, 2023); Indiana Utility Regulatory Commission, Cause No. 45933, Rebuttal Testimony of Ann E. Bulkley at 107:4-108:25 (Dec. 13, 2023).

[112] Robert Litzenberger, *et al.*, "On the CAPM Approach to the Estimation of A Public Utility's Cost of Equity Capital," *The Journal of Finance*, Vol. 35, No. 2, at 369-383 (1980); Stéphane Chrétien and Frank Coggins, "Cost Of Equity For Energy Utilities: Beyond The CAPM," *Energy Studies Review*, Vol. 18, No. 2, (2011).

1   Because of this adjustment, some critics of the ECAPM argue that
2   the use of Value Line adjusted betas in the traditional CAPM
3   amounts to using an ECAPM. This is incorrect. The use of adjusted
4   betas in a CAPM analysis is not equivalent to the ECAPM. Betas
5   are adjusted because of the regression tendency of betas to converge
6   towards 1.0 over time. We have seen that numerous empirical
7   studies have determined that the SML [Security Market Line]
8   described by the CAPM formula at any given moment in time is not
9   as steeply sloped as the predicted SML. The slope of the SML
10   should not be confused with Beta. On this point, Eugene F. Brigham,
11   finance professor and the author of many financial textbooks states:

12   The Slope of the SML (5% in Figure 6-16) reflects
13   the degree of risk aversion in the economy. The
14   greater the average investor's aversion to risk, then
15   (a) the steeper the slope of the line, (b) the greater the
16   risk premium for all stocks, and (c) the higher
17   required rate of return on all stocks. Students
18   sometimes confuse beta with the slope of the SML.
19   This is a mistake.

20   The use of an adjusted beta by Value Line is correcting for a
21   different problem than the ECAPM. The adjusted beta captures the
22   fact that betas regress towards one over time. The ECAPM corrects
23   for the fact that the CAPM under-predicts observed returns when
24   beta is less than one and over-predicts observed returns when beta
25   is greater than one.[113]

26 **Q:**   **ARE YOU AWARE OF STATE REGULATORY COMMISSIONS THAT**

27   **HAVE ACCEPTED THE USE OF THE ECAPM IN THE MANNER AS YOU**

28   **HAVE CONDUCTED?**

29 **A.**   Yes. There are various regulatory commissions that have supported the use of the

30   ECAPM in establishing an authorized ROE and have done so when adjusted betas

31   are used in the ECAPM analysis. For example, the New York Public Service

32   Commission ("NYPSC"), the Montana Public Service Commission ("Montana

33   PSC"), and North Carolina Utilities Commission ("NCUC") have accepted the

---

[113] Dr. Roger A. Morin, *Modern Regulatory Finance*, Public Utilities Reports, Inc., at 223-224 (2021).

1   ECAPM analysis with the use of adjusted beta coefficients in establishing the

2   authorized ROE for regulated utilities. Specifically, the NYPSC gives equal weight

3   to the CAPM and ECAPM (which it refers to as the "Zero Beta" CAPM) results,[114]

4   the Montana PSC has expressed preference for the ECAPM analysis,[115] and the

5   NCUC has recently found that both the adjustment to beta in the CAPM and the

6   adjustment in the ECAPM were needed because they correct for different things.[116]

7   **F.   Mr. Gorman's Overall ROE Recommendation**

8   Q: **HOW DOES MR. GORMAN ESTABLISH HIS RECOMMENDED ROE**

9   **RANGE IN THIS PROCEEDING?**

10   A.   In the current proceeding, Mr. Gorman develops his recommended ROE range by

11   setting the low-end of his range equal to his DCF result and the high-end of his

12   range based on the results of both his Risk Premium and CAPM analyses.

13   Mr. Gorman then relies on the midpoint of his range as his recommended ROE for

14   the Company in this proceeding.

---

[114] *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Corning Natural Gas Corporation for Gas Service*, New York Public Service Commission Case No. 20-G-0101, Order Establishing Rates and Rate Plan at 44-46 (May 19, 2021).

[115] *The Joint Application for Approval to Change and Establish Natural Gas Delivery Service Rates for Energy West Montana, Inc.*, Montana Public Service Commission, Docket No. D2017.9.80, Final Order No. 7575c at 46 (Sept. 26, 2018).

[116] *Application of Duke Energy Progress, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina and Performance Based Regulation*, North Carolina Utilities Commission, Docket No. E-2, SUB 1300, Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Public Notice at 162-63 (Aug. 18, 2023).

1   Q: **IS MR. GORMAN'S APPROACH TO ESTABLISHING HIS**

2   **RECOMMENDED ROE IN THIS PROCEEDING CONSISTENT WITH**

3   **HIS APPROACH IN PRIOR PROCEEDINGS?**

4   A.   No. In prior proceedings, Mr. Gorman has developed his ROE range by setting the

5   low-end of his range equal to the minimum of his DCF, CAPM, and Risk Premium

6   analyses, and the high-end of his range equal to the maximum result of those same

7   three analyses.[117] Since Mr. Gorman has offered no explanation for why he has

8   changed his approach for setting the high-end of his recommended ROE range, it

9   appears that he has made such change to artificially lower the high-end of his

10   recommended ROE range.

11   Q: **IF MR. GORMAN HAD DEVELOPED HIS RECOMMENDED ROE**

12   **RANGE IN THIS PROCEEDING SUCH AS HE HAS DONE PREVIOUSLY,**

13   **HOW WOULD HIS RANGE, AND ULTIMATELY HIS ROE**

14   **RECOMMENDATION, CHANGE?**

15   A.   Figure AEB-R-17 presents the ROE range of Mr. Gorman's cost of equity results

16   in this proceeding when, as he has done previously, the low-end of his range is

17   equal to the minimum of his DCF, CAPM, and Risk Premium analyses, and the

18   high-end of his range equal to the maximum of those same analyses. However, as

19   discussed previously, in the past few years Mr. Gorman has modified how much

20   weight he places on the results of each of his DCF analyses multiple times.

21   Therefore, the ROE range based on Mr. Gorman's cost of equity results in this

---

[117] *See e.g.,* Kansas Corporation Commission, Docket No. 23-EKCE-775-RTS, Direct Testimony and Exhibits of Michael P. Gorman at 91:3-92:2.

1   proceeding is shown three different ways: (1) his as-filed position in this case;

2   (2) the approach Mr. Gorman has previously used when his recommended DCF

3   result was based on an equal weighting of all three of his DCF analyses; and (3) the

4   approach Mr. Gorman has previously used when his recommended DCF result was

5   primarily based on the results of his constant growth DCF using analysts' projected

6   EPS growth rates. As shown, while Mr. Gorman recommends an ROE of 9.50

7   percent for the Company in this proceeding, ***even when no other changes are made***

8   ***to his cost of equity results,*** *and an approach that he has utilized previously is used*

9   *to determine his ROE range, the midpoint of his results – which is and has been his*

10   *recommended ROE is substantially higher.* In other words, as shown Figure

11   AEB-R-17, because of the way in which Mr. Gorman has inconsistently and

12   arbitrarily changed from case-to-case both the way in which he (1) weighs the

13   results of his DCF analyses; and (2) establishes his recommended ROE range,

14   Mr. Gorman clearly understates his recommended ROE range and his ROE for the

15   Company in this proceeding.

16   **Figure AEB-R-17: ROE Range Using Mr. Gorman's As-Filed Cost of Equity**
17   **Results**

	Mr. Gorman As Filed Approach	Mr. Gorman Prior Approach #1	Mr. Gorman Prior Approach #2
DCF	9.30%	9.87% [1]	10.86% [2]
CAPM	9.75%	9.75%	9.75%
Risk Premium	9.60%	9.60%	9.60%
Minimum	9.30%	9.60%	9.60%
Maximum	9.75%	9.87%	10.86%
Midpoint / Recomm. ROE	**9.50%**	**9.74%**	**10.23%**

[1] Mr. Gorman's prior approach of equally weighing the results of all of his DCF analyses.

[2] Mr. Gorman's prior approach of primarily weighing the results of his constant growth DCF using projected EPS growth rates.

1   Q: **SHOULD ADJUSTMENTS ALSO BE REFLECTED IN MR. GORMAN'S**

2   **COST OF EQUITY ANALYSES TO ADDRESS THE ISSUES THAT YOU**

3   **HAVE IDENTIFIED WITH THOSE ANALYSES?**

4   A.   Yes, it is reasonable to reflect adjustments to Mr. Gorman's cost of equity analyses

5   for the various inconsistencies and flaws that I have previously discussed.

6   Q: **WHEN REASONABLY ADJUSTED, WHAT ARE THE RESULTS OF MR.**

7   **GORMAN'S COST OF EQUITY ANALYSES?**

8   A.   Figure AEB-R-18 summarizes the results of Mr. Gorman's cost of equity models

9   when the following reasonable adjustments are reflected:

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- A recommended DCF range is established by setting the low-end of the range equal to the high-end of his sustainable growth and multi-stage DCF results and the high-end of the range equal to the results of his constant growth DCF using projected analysts' EPS growth rates, with the midpoint of the range then used as the recommended result. As discussed, this approach is consistent with an approach Mr. Gorman has relied on in prior proceedings, albeit it is conservative given that, as discussed, he has previously also relied primarily just on the results of his constant growth DCF using projected analysts' EPS growth rates.

19
20
21
22
- Mr. Gorman's Risk Premium analyses are adjusted to appropriately reflect the inverse relationship between interest rates and the market risk premium, with the midpoint of the two analyses used as the recommended result, which is consistent with Mr. Gorman's approach.

23
24
25
26
27
- Mr. Gorman's CAPM analyses are adjusted such that the market return is calculated as the average of his historical based market return and my updated forward-looking market return estimate. His CAPM analyses are also adjusted to rely on the betas for the proxy group since May 2020, which eliminates any effects of the pandemic on the market analysis.

1   **Figure AEB-R-18: Results of Mr. Gorman's Cost of Equity Analyses When**
2   **Appropriately Adjusted**

	Gorman As-Filed			Gorman Adjusted		
DCF						
Range of Results	9.30%	to	11.10%	9.42%	to	11.10%
Midpoint		10.20%			10.20%	
Recommendation		9.30%			10.20%	
Risk Premium						
Range of Results	9.60%	to	9.60%	10.33%	to	10.40%
Recommendation		9.60%			10.37%	
CAPM						
Recommended Range	9.75%	to	10.93%	10.39%	to	10.45%
Recommendation		9.75%			10.42%	
Overall Range	9.30%	to	9.70%	10.20%	to	10.40%
Overall Recommendation (Midpoint)		9.50%			10.30%	

3   In the current proceeding, Mr. Gorman develops his recommended ROE range by

4   setting the low-end of the range equal to his recommended DCF result and the high-

5   end of the range considering the results of both his Risk Premium and CAPM

6   analyses. However, in prior proceedings, Mr. Gorman has developed his range by

7   setting the low-end equal to the minimum of his DCF, CAPM and Risk Premium

8   analyses and the high-end equal to the maximum of his DCF, CAPM and Risk

9   Premium analyses.[118] Regardless, using the approach Mr. Gorman utilizes in this

10   case to determine his recommended ROE range, when Mr. Gorman's cost of equity

11   analyses are reasonably adjusted, the cost of equity resulting from his analyses as

12   shown in Figure AEB-R-18 ranges from 10.20 percent to 10.40 percent.

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[118] *Id.*