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1 **Q. Please provide a summary profile of the Companies.**

2 A. NYSEG's principal business consists of its regulated electricity
3 transmission, distribution and limited generation operations and regulated
4 natural gas transportation and distribution operations in New York State.
5 NYSEG serves approximately 907,336 electricity and 270,204 natural gas
6 customers across more than 40 percent of the upstate New York geographic
7 area..⁴⁴ NYSEG's long-term issuer ratings are Baa1 (Moody's),⁴⁵ A-
8 (S&P),⁴⁶ and A- (Fitch)..⁴⁷ RG&E's principal business consists of its
9 regulated electricity transmission, distribution and generation operations
10 and regulated natural gas transportation and distribution operations in
11 western New York. RG&E serves approximately 385,925 electricity and
12 319,737 natural gas customers within a nine-county region in western New
13 York, centered around Rochester..⁴⁸ RG&E's long-term issuer ratings are
14 Baa1 (Moody's),⁴⁹ A- (S&P),⁵⁰ and BBB+ (Fitch)..⁵¹

15
16 **Q. How did you select the companies included in your proxy group?**

17 A. In recognition of the Companies' combination electric and natural gas
18 utility operation, I began with the companies that Value Line classifies as
19 "Electric Utilities" and "Natural Gas Distribution Companies." That

⁴⁴ Avangrid, Inc., 2021 Form 10-K, at 8.

⁴⁵ Source: Moody's Investors Service, accessed March 1, 2022.

⁴⁶ Source: S&P Capital IQ Pro, accessed March 1, 2022.

⁴⁷ Source: Fitch Ratings, Senior Unsecured Rating, accessed March 1, 2022.

⁴⁸ Avangrid, Inc., 2021 Form 10-K, at 8.

⁴⁹ Source: Moody's Investors Service, accessed March 1, 2022.

⁵⁰ Source: S&P Capital IQ Pro, accessed March 1, 2022.

⁵¹ Source: Fitch Ratings, accessed March 1, 2022.

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1 combined group includes 46 domestic U.S. utilities. I simultaneously
2 applied the following screening criteria to establish a risk-comparable
3 Combined Utility Proxy Group that includes electric and natural gas utility
4 companies:

- 5 • To ensure that information regarding the proxy group companies is
6 consensus-based, I eliminated the companies that are not covered by
7 at least two utility industry equity analysts;
- 8 • I eliminated companies that do not have investment grade corporate
9 credit ratings and/or senior unsecured bond ratings according to
10 S&P and Moody's because such companies do not have a similar
11 financial risk profile to that of the Companies;
- 12 • I eliminated companies that have not paid regular dividends or do
13 not have positive earnings growth projections from at least two
14 source because such characteristics are incompatible with the DCF
15 model;
- 16 • To ensure that the proxy group consists of companies that are
17 primarily regulated utilities, I eliminated companies with less than
18 70.00 percent of total operating income derived from regulated
19 utility operations; and
- 20 • I eliminated companies known to be party to a merger, acquisition,
21 or other transformational transaction as such activities may have a
22 temporary effect on such companies' stock prices and projections
23 unrelated to the overall cost of capital.

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1

2 **Q. Did you include AVANGRID in your analysis?**

3 A. No. It is my practice to exclude the subject company, or its parent holding
4 company, from the proxy group to avoid circular logic that otherwise would
5 occur.

6 **Q. Did you exclude any other companies from the proxy group?**

7 A. Yes. I also excluded Pinnacle West Capital Corporation (“PNW”) and
8 Hawaiian Electric Industries, Inc. (“HE”). For PNW, the share price
9 decreased approximately 24 percent over a two-month period from October
10 through November 2021 resulting from a negative regulatory decision for
11 its largest operating company, Arizona Public Service Company.
12 Therefore, similar to the reason that I exclude transformative transactions;
13 because the stock price can be affected by one-time events, I also excluded
14 PNW from the proxy group.

15

16 HE’s operations are concentrated on the islands of Hawaii; therefore, the
17 company faces geographic concentration risk. As HE noted in the
18 company’s 2020 Form 10-K:

19 The Company is subject to the risks associated with the
20 geographic concentration of its businesses and current lack of
21 interconnections that could result in service interruptions at the
22 Utilities or higher default rates on loans held by ASB [American
23 Savings Bank].⁵²

24

⁵² Hawaii Electric Industries, Inc., 2021 Form 10-K, at 23.

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1 The increased risk of service interruptions resulting from HE's geographic
2 location which could result in revenue loss and increased costs is a risk
3 unique to HE and would not apply to utilities located on the U.S. mainland.
4 Furthermore, HE's unregulated operations which represent approximately
5 33 percent of the company's operation income in 2021 are concentrated in
6 the banking sector through the ownership of American Savings Bank
7 ("ASB").⁵³ ASB also only operates on Hawaii; thus, all of the company's
8 consumer and commercial loans are to customers on Hawaii. If Hawaii were
9 to face an adverse economic or political event, ASB could face severe
10 financial effects given the company's geographic concentration in
11 Hawaii.⁵⁴ As a result, I have excluded HE from my proxy group considering
12 HE's unique geographical risks.

13
14 **Q. What is the composition of your Combined Utility Proxy Group?**

15 A. My Combined Utility Proxy Group consists of the 29 companies presented
16 in Figure 9.

17 **Figure 9: Combined Utility Proxy Group**

Company	Ticker
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Atmos Energy Corporation	ATO
Avista Corporation	AVA

⁵³ *Id.*, at 86.

⁵⁴ *Id.*, at 20.

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Company	Ticker
Black Hills Corporation	BKH
CMS Energy Corporation	CMS
Consolidated Edison, Inc.	ED
Duke Energy Corporation	DUK
Edison International	EIX
Entergy Corporation	ETR
Evergy, Inc.	EVRG
Eversource Energy	ES
IDACORP, Inc.	IDA
MGE Energy, Inc.	MGEE
NextEra Energy, Inc.	NEE
NiSource Inc.	NI
Northwest Natural Gas Company	NWN
NorthWestern Corporation	NWE
OGE Energy Corporation	OGE
ONE Gas, Inc.	OGS
Otter Tail Corporation	OTTR
Portland General Electric Company	POR
Public Service Enterprise Group Inc.	PEG
Southern Company	SO
Spire, Inc.	SR
Wisconsin Energy Corporation	WEC
Xcel Energy Inc.	XEL

- 1
- 2 **Q. Why do you believe that net operating income is an appropriate**
- 3 **screening criterion?**
- 4 A. In establishing my proxy group, I relied on the percentage of net operating
- 5 income derived from regulated operations instead of the percentage of total
- 6 revenue derived from regulated operations because net operating income is

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1 more representative of the contribution of that business segment to earnings
2 and the corporation's overall financial position. Specifically, a significant
3 portion of gas and electric utility company revenue is derived from the costs
4 of purchased gas, purchased fuel, and purchased power, which, in most
5 cases, are recoverable through tracking mechanisms and do not, therefore,
6 contribute to earnings. Furthermore, this portion of total revenue can
7 fluctuate considerably based on the cost of gas and other inputs. Therefore,
8 relying exclusively on a revenue screen does not provide a clear or
9 necessarily consistent indicator of the contribution of the regulated utility
10 operations to a company's earnings. Net operating income excludes the cost
11 of purchased commodity and therefore more closely represents the
12 contribution of the business segment to earnings.

13

14 **Q. Has the Commission typically relied on similar screening criteria when**
15 **estimating the ROE?**

16 **A.** Yes. The Commission has typically relied on screening criteria that are
17 similar to those that I have used to develop my proxy groups. The proxy
18 group that is typically relied on by the Commission is composed of a large
19 group of dividend-paying companies with investment grade bond ratings
20 and regulated revenues of at least 70 percent that are not subject to merger-

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1 related or corporate restructuring activities..⁵⁵ For the reasons noted above
2 and discussed throughout my Direct Testimony, a proxy group based on
3 these criteria may be less comparable to the Companies than the proxy
4 group I have relied on and therefore may not produce appropriate estimates
5 of the Companies' required ROE.

6
7 **Q. Why is it appropriate to include natural gas distribution companies in**
8 **the proxy group for NYSEG and RG&E?**

9 A. Because NYSEG and RG&E provide electric and natural gas service, the
10 Companies are both electric utilities and natural gas distribution companies.
11 Therefore, a proxy group that recognizes the risks of natural gas distribution
12 operations more closely approximates the risk profiles of NYSEG and
13 RG&E.

14
15 **Q. Have other regulators considered the inclusion of natural gas**
16 **distribution companies in the proxy group used to estimate the cost of**
17 **equity for an electric utility?**

18 A. Yes. The Staff of the Maine Public Utilities Commission ("Maine Staff")
19 noted in Docket No. 2015-00360 and Docket No. 2013-00443 that including
20 companies in the proxy group that own natural gas distribution operations
21 or using a separate proxy group comprised of natural gas distribution

⁵⁵ See, e.g., Case 13-E-0030, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service, Testimony of Craig E. Henry, at 14-16.

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1 companies is appropriate for the purposes of comparing to an electric utility
2 that does not own any generation..⁵⁶ Specifically, Maine Staff stated in
3 Docket No. 2015-00360 that “[l]ike distribution and transmission of
4 electricity through poles and wires, transportation of gas through pipes
5 presents a similar risk profile to electric T&D utilities.”⁵⁷ In each case, the
6 Maine Staff supported screening criteria that resulted in the inclusion of
7 companies in the proxy group that have natural gas operations. However,
8 the Maine Staff recently expanded the proxy group screening process for
9 transmission and distribution electric utilities to include companies
10 classified by Value Line as natural gas distribution companies. Specifically,
11 in Docket No. 2018-00194, the Maine Staff developed a proxy group that
12 included natural gas distribution companies for the purposes of estimating
13 the cost of equity for Central Maine Power Company, a distribution electric
14 utility..⁵⁸

VI. COST OF EQUITY ESTIMATION

16 **Q. Please briefly discuss the ROE in the context of the regulated Rate of**
17 **Return.**

18 **A.** The rate of return (“ROR”) for a regulated utility is based on its weighted
19 average cost of capital, in which the costs of the individual sources of capital

⁵⁶ Emera Maine, Request for Approval of a Proposed Rate Increase, Docket No. 2015-00360, Bench Analysis at 6 (June 2, 2016); Bangor Hydro Electric Company and Maine Public Service Company, Proposed Increase in Distribution Rates, Docket No. 2013-00443, Bench Analysis, at 7 (March 17, 2014).

⁵⁷ Emera Maine, Request for Approval of a Proposed Rate Increase, Docket No. 2015-00360, Bench Analysis, at 6-7 (June 2, 2016).

⁵⁸ Central Maine Power Company, Investigation into the Rates and Revenue Requirements of Central Maine Power Company, Docket No. 2018-00194, Bench Analysis, at 42 (February 22, 2019).

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1 are weighted by their respective percentages of total capitalization of the
2 utility. The ROE included in the ROR is weighted by the percentage of
3 common equity in the regulated utility's ratemaking capital structure.

4
5 **Q. How is the required ROE determined?**

6 A. While the cost of debt can be directly observed, the cost of equity and the
7 required ROE are market-based and, therefore, must be estimated based on
8 observable market information. The required ROE is determined by using
9 one or more analytical techniques that rely on market data to quantify
10 investor expectations regarding the range of required equity returns.
11 Informed judgment is applied, based on the results of those analyses, to
12 determine where within the range of results the cost of equity for a company
13 falls. As a general proposition, the key consideration in determining the
14 cost of equity is to ensure that the methodologies employed reasonably
15 reflect investors' views of the financial markets, the proxy group
16 companies, and the subject company's risk profile.

17
18 **Q. What methods did you use to determine the Companies' cost of equity?**

19 A. Consistent with Commission precedent, I used the DCF model and CAPM
20 as the primary approaches. In establishing my recommended ROE, I relied
21 on a multi-stage form of the DCF model, and, consistent with the
22 Commission's stated preference, I used both the traditional form of the
23 CAPM as well as the Zero-Beta form of that model. In both forms of the

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1 CAPM, I incorporated a forward-looking measure of the Market Risk
2 Premium.

3
4 **Q. Why do you believe it is important to use more than one analytical**
5 **approach?**

6 A. Because the cost of equity is not directly observable, it must be estimated
7 based on both quantitative and qualitative information. When faced with
8 the task of estimating the cost of equity, analysts and investors are inclined
9 to gather and evaluate as much relevant data as reasonably can be analyzed.
10 As a result, a number of models have been developed to estimate the cost
11 of equity. For that reason, I use multiple approaches to estimate the cost of
12 equity. As a practical matter, however, all of the models available for
13 estimating the cost of equity are subject to limiting assumptions or other
14 methodological constraints. Consequently, many finance texts recommend
15 using multiple approaches when estimating the cost of equity. For example,
16 Copeland, Koller, and Murrin.⁵⁹ suggest using the CAPM and Arbitrage
17 Pricing Theory model, while Brigham and Gapenski.⁶⁰ recommend the
18 CAPM, DCF, and “bond yield plus risk premium” approaches..⁶¹

⁵⁹ Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, 3rd Ed. (New York: McKinsey & Company, Inc., 2000), at 214.

⁶⁰ Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

⁶¹ While it has historically been my practice to present the results of a bond yield plus risk premium approach in the context of estimating a reasonable ROE, I have not done so in this case to limit the number of contested issues.

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1 **Q. How are current market conditions affecting the results of the DCF and**
2 **CAPM models?**

3 A. As discussed in Section IV, there is concern that given investors expectation
4 that interest rates are expected to increase over the near-term from the
5 current low levels and thus utility stocks are expected to underperform that
6 the results of the DCF model are understating the forward-looking cost of
7 equity. The CAPM method offers some balance to the sensitivity of the
8 DCF model to changes in Treasury bond yields. However, the current low
9 interest rates and the expectation that interest rates may increase also
10 impacts the CAPM in two ways: (1) if the risk-free rate is based on historical
11 average yields on Treasury bonds, it understates the forward-looking risk-
12 free rate, and (2) if the market risk premium is based on historical returns
13 on large company stocks minus the current risk free rate, it understates the
14 forward-looking market risk premium. To adjust for these shortcomings,
15 the risk-free rate in the CAPM analysis should also consider projected yields
16 on Treasury bonds, and the market risk premium should be based on a
17 forward-looking computation of the expected return on the total market less
18 the risk-free rate. Market risk premiums based on long-term historical
19 averages are unresponsive to movements in interest rates and would likely
20 understate the market risk premium and, accordingly, the cost of equity.

21

22 **Q. What are your conclusions about the results of the DCF and CAPM**
23 **models?**

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1 A. Recent market data that is used as the basis for the assumptions for both
2 models have been affected by market conditions. As a result, relying
3 exclusively on historical assumptions in these models, without considering
4 whether these assumptions are consistent with investors' future
5 expectations, will underestimate the cost of equity that investors would
6 require over the period that the rates in this case are to be in effect. In this
7 instance, relying on the historically low dividend yields that are not
8 expected to continue over the period that the new rates will be in effect will
9 underestimate the ROE for NYSEG and RG&E.

10

11 Furthermore, as discussed in Section IV above, long-term interest rates have
12 increased since August 2020 and this trend is expected to continue as the
13 Federal Reserve normalizes monetary policy in response to increased
14 inflation. Therefore, the use of current averages of Treasury bond yields as
15 the estimate of the risk-free rate in the CAPM is not appropriate since recent
16 market conditions are not expected to continue over the long-term. Instead,
17 analysts should rely on projected yields of Treasury Bonds in the CAPM.
18 The projected Treasury Bond yields results in CAPM estimates that are
19 more reflective of the market conditions that investors expect during the
20 period that the Companies' rates will be in effect.

21

1 A. Discounted Cash Flow Model

3 A. The DCF approach is based on the theory that a stock's current market price
4 represents the present value of all expected future cash flows. In its most
5 general form, the DCF model is expressed as follows:

Where P_0 represents the current market stock price, $D_1 \dots D_n$ are all expected future dividends, and r is the discount rate, or required ROE. As discussed below, I have not included the constant growth form of the DCF model, but instead have focused on a multi-stage form of the DCF model.

12 **Q. Please generally describe the DCF model you relied on.**

20

22 A. The multi-stage DCF model that I have used sets the proxy company's
23 current stock price equal to the present value of future cash flows received

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1 over three time periods. In all three periods, cash flows are equal to the
2 annual dividend payments that stockholders receive. The first period is a
3 short-term growth period that consists of the first five years; the second
4 period is a transition period from the short-term growth rate to the long-term
5 growth rate that occurs over five years (*i.e.*, years 6 through 10); and the
6 third period is a long-term growth period that begins in year 11 and
7 continues in perpetuity. The ROE is then calculated as the rate of return
8 that results from the initial stock investment and the dividend payments over
9 the analytical period.

10

11 **Q. Has the Commission relied on a multi-stage DCF model in prior cases?**

12 A. Yes, the Commission has relied on a two-stage form of the DCF model in
13 prior cases.⁶² The two-stage model that the Commission has relied on and
14 the multi-stage model that I rely on both define the cost of equity as the
15 discount rate that sets the current stock price equal to the discounted value
16 of future cash flows that are expressed as projected dividends. Both models
17 project dividends using growth rates over multiple periods.

18

⁶² See Case 10-E-0362, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Electric Service, Order Establishing Rates for Electric Service, (issued June 17, 2011) ("2011 O&R Rate Order"), at 68-69.

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1 **Q. Is the multi-stage form of the DCF model consistent with the intent of**
2 **the two-stage model relied upon by the Commission?**

3 A. Yes. Both the construction of the multi-stage model and the underlying
4 assumptions are consistent with the two-stage model relied upon by the
5 Commission. The constant growth DCF model assumes the expected
6 growth rate will be constant in perpetuity. The multi-stage forms of the
7 DCF model, including both the two-stage model that the Commission has
8 relied upon and the multi-stage form of the model that is relied on in my
9 analysis, recognize short and long-term growth prospects.

10

11 **Q. Does the multi-stage form of the DCF model offer improvements over**
12 **the two-stage model traditionally relied upon by the Commission?**

13 A. Yes. The general form of the two-stage model relied upon by the
14 Commission involves a near-term growth stage based on projected
15 dividends and a long-term growth stage employing an estimated long-term
16 growth rate in dividends..⁶³ The Commission's application of a two-stage
17 DCF assumes that a company's growth abruptly shifts to a long-run growth
18 state after the initial five-year period. In contrast, the multi-stage model
19 relies on growth rates over three periods, as described above. The
20 multistage form of the DCF model provides for a gradual transition to a

⁶³ See, e.g., Case 10-E-0362, Case 06-E-1433, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc., for Electric Service; Case 08-E-0539, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service.

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1 company's expected long-term growth, whereas the two-stage DCF model
2 assumes the transition from short to long-term growth occurs in one year.

3

4 **Q. What market data did you use to calculate the current stock price in**
5 **your DCF model?**

6 A. The stock prices that I relied on in my DCF model are based on the average
7 market closing prices for the proxy companies over the three months ended
8 March 31, 2022.

9

10 **Q. What growth rates did you rely on in the multi-stage DCF model?**

11 A. As shown in Exhibit__(AEB-2), I began with the current annualized
12 dividend as of March 31, 2022 for each proxy group company. In the first
13 stage of the model, the current annualized dividend is escalated based on
14 the average of the three-to five-year earnings growth estimates reported by
15 Yahoo! Finance, Zacks, and Value Line. For the third stage of the model, I
16 relied on long-term projected growth in Gross Domestic Product ("GDP").
17 The second stage growth rate is a transition from the first stage growth rate
18 to the long-term growth rate on a geometric average basis.

19

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1 **Q. Why do you believe that earnings growth rates are the appropriate**
2 **growth rates in the DCF model?**

3 A. Earnings are the fundamental driver of a company's ability to pay
4 dividends; therefore, earnings growth is the appropriate measure of a
5 company's long-term growth. As noted by Brigham and Houston:

6 Growth in dividends occurs primarily as a result of growth in
7 earnings per share (EPS). Earnings growth, in turn, results from
8 a number of factors, including (1) inflation, (2) the amount of
9 earnings the company retains and invests, and (3) the rate of
10 return the company earns on its equity (ROE).⁶⁴

11

12 In contrast, changes in a company's dividend payments are based on
13 management decisions related to cash management and other factors. For
14 example, a company may decide to retain certain earnings rather than
15 include those earnings in a dividend issuance. Therefore, dividend growth
16 rates are less likely than earnings growth rates to reflect investor perceptions
17 of a company's growth prospects.

18

19 **Q. Is there support for the use of analysts' earnings growth estimates in**
20 **the DCF model?**

21 A. Yes, there is significant academic support for the use of analysts' earnings
22 growth rates. In addition, the majority of the data that are publicly available
23 to investors sets forth analysts' projections of earnings growth rates. Value

⁶⁴ Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management*, at 317 (Concise Fourth Edition, Thomson South-Western, 2004).

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1 Line is the only publication I am aware of that provides projected dividend
2 growth rates.

3
4 **Q. Please summarize the academic research on growth rates and stock**
5 **valuation.**

6 A. The relationship between various growth rates and stock valuation metrics
7 has been the subject of much academic research. Many published articles
8 specifically support the use of analysts' earnings growth projections in the
9 DCF model in general, as well as for a method of calculating the expected
10 market risk premium. While this article is focused on the calculation of the
11 CAPM, Dr. Robert Harris demonstrates that financial analysts rely on
12 earnings forecasts (referred to in the article as "FAF") and the use of a
13 constant growth DCF formula to estimate the expected market risk
14 premium.⁶⁵ Dr. Harris made the following observations:

15 [...] a growing body of knowledge shows that analysts' earnings
16 forecasts are indeed reflected in stock prices. Such studies
17 typically employ a consensus measure of FAF calculated as a
18 simple average of forecasts by individual analysts.⁶⁶

19 *****

20 Given the demonstrated relationship of FAF to equity prices and
21 the direct theoretical appeal of expectational data, it is no
22 surprise that FAF have been used in conjunction with DCF
23 models to estimate equity return requirements.⁶⁷

⁶⁵ Robert S. Harris, Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return, Financial Management, Spring 1986, at 66.

⁶⁶ *Id.*, at 59.

⁶⁷ *Id.*, at 60.

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1 Dr. Harris's work demonstrates that analysts rely on earnings as the
2 appropriate measure of growth in the DCF model. Professors Carleton and
3 Vander Weide also performed a study to determine whether projected
4 earnings growth rates are superior to historical measures of growth in the
5 implementation of the DCF model.⁶⁸ Although the purpose of that study
6 was to "investigate what growth expectation is embodied in the firm's
7 current stock price,"⁶⁹ the authors clearly indicate the importance of
8 earnings projections in the context of the DCF model, concluding that:

9 [...] our studies affirm the superiority of analysts' forecasts over
10 simple historical growth extrapolations in the stock price
11 formation process. Indirectly, this finding lends support to the
12 use of valuation models whose input includes expected growth
13 rates.⁷⁰

14
15 Similarly, Harris and Marston presented "estimates of shareholder required
16 rates of return and risk premia which are derived using forward-looking
17 analysts' growth forecasts."⁷¹ In addition to other findings, Harris and
18 Marston reported that,

19 [...] in addition to fitting the theoretical requirement of being
20 forward-looking, the utilization of analysts' forecasts in
21 estimating return requirements provides reasonable empirical
22 results that can be useful in practical applications.⁷²

23

⁶⁸ James H. Vander Weide, Willard T. Carleton, *Investor growth expectations: Analysts vs. history*, The Journal of Portfolio Management, Spring 1988.

⁶⁹ *Id.*, at 78.

⁷⁰ *Id.*, at 82.

⁷¹ Robert S. Harris, Felicia C. Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, Summer 1992.

⁷² *Id.*, at 63.

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1 The Carleton and Vander Weide study was updated to determine whether
2 the finding that analysts' earnings growth forecasts are relevant in the stock
3 valuation process still holds. The results of that updated study continued to
4 demonstrate the importance of analysts' earnings forecasts, including the
5 application of those forecasts to utility companies..⁷³ Similarly, Brigham,
6 Shome and Vinson noted that "evidence in the current literature indicates
7 that (1) analysts' forecasts are superior to forecasts based solely on time
8 series data; and (2) investors do rely on analysts' forecasts.."..⁷⁴

9
10 **Q. Have you reviewed more recent academic research on growth rates and**
11 **stock valuation?**

12 A. Yes, I have. A 2002 study in the *Journal of Accounting Research*, examined
13 "the valuation performance of a comprehensive list of value drivers" and
14 found that "forward earnings explain stock prices remarkably well" and
15 were generally superior to other value drivers analyzed..⁷⁵ Similarly, a 2012
16 study from the journal *Contemporary Accounting Research* found that the
17 sell-side analysts with the most accurate stock price targets were those
18 whom the researchers found to have more accurate earnings forecasts..⁷⁶

19 This conclusion is consistent with the findings of Professors Jung, Shane

⁷³ Advanced Research Center, *Investor Growth Expectations*, Summer, 2004.

⁷⁴ *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985.

⁷⁵ Liu, Jing, et al., "Equity Valuation Using Multiples," *Journal of Accounting Research*, Vol. 40 No. 1, March 2002.

⁷⁶ Gleason, C.A., et al., "Valuation Model Use and the Price Target Performance of Sell-Side Equity Analysts," *Contemporary Accounting Research*.

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1 and Yang who concluded in their 2012 article in the *Journal of Accounting*
2 *and Finance* that investors respond more strongly to the recommendations
3 of analysts who publish long-term earnings growth projections.
4 Specifically, the results of the study indicated that:

5 We speculate that publication of LTG forecasts signals effective
6 analyst investment in a process that provides the analyst with a
7 valuable long-term perspective of firms' prospects, and more so
8 in the post-Reg. FD period when analysts have a more level
9 playing field. We document robust results consistent with this
10 conjecture. We find that stock recommendations accompanied
11 by LTG forecasts elicit a stronger market reaction than
12 recommendations unaccompanied by LTG forecasts. In
13 addition, analysts publishing LTG forecasts are less likely to
14 leave the profession or be demoted from large to smaller
15 brokerage houses. Finally, post-Reg. FD observations drive
16 most of our results.

17 Since we also find no evidence of market under- or overreaction
18 to stock recommendation revisions accompanied by LTG
19 forecasts, we conclude that publication of LTG forecasts plays a
20 meaningful role in promoting price discovery and efficient
21 allocation of resources in capital markets..⁷⁷
22

23 **Q. Please summarize the survey of investment analysts that you reviewed**
24 **regarding the variables most important in stock valuation.**

25 A. In a survey completed by 297 members of the Association for Investment
26 Management and Research, the majority of respondents ranked earnings as
27 the most important variable in valuing a security (more important than cash

⁷⁷ Jung, Boochun, 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.

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1 flow, dividends, or book value).⁷⁸ Therefore, investment analysts report
2 predominant reliance on EPS growth projections.

3
4 **Q. What is your opinion of the Commission's historical reliance on**
5 **dividend per share growth rates during the initial five-year term of its**
6 **Two-Stage DCF?**

7 A. Sole reliance on Value Line projections of dividend per share growth is not
8 appropriate for several reasons. First, the use of only dividend growth rates
9 ignores the substantial body of academic research demonstrating that
10 earnings growth rates are the most relevant factor in stock price valuation.⁷⁹
11 Second, projections of dividend growth, which would not include growth in
12 retained earnings, only measure a portion of a company's growth.
13 Therefore, earnings growth projections are more complete estimates of total
14 company growth than projected dividend growth rates. Finally, Value
15 Line's 4-6 year projections are not consensus estimates, but reflect the
16 viewpoint of a single analyst. Therefore, the Commission's models, which
17 have historically relied only on projected dividend per share growth rates
18 from Value Line, reflect the growth expectations of a single analyst in the
19 first stage of the model. In contrast, there are several consensus estimates
20 of projected earnings per share growth rates that are publicly available and

⁷⁸ Block, Stanley B., "A Study of Financial Analysts: Practice and Theory", Financial Analysts Journal (July/August 1999).

⁷⁹ The Recommended Decision ("RD") in the GFP indicates that the Telecommunications Group, which included Commission Staff, supported the use of earnings per share growth in the DCF models employed to estimate the ROE (RD at 9).

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1 widely used by investors, including Zacks Investment Research and
2 Thomson First Call. Each of these consensus forecasts considers the growth
3 expectations for each company based on the expectations of multiple
4 analysts. It is not reasonable to exclude these timely and widely-available
5 sources of information from the analysis when these real-time sources have
6 become the more common data points relied on by investors.

7
8 **Q. How did you calculate the long-term GDP growth rate?**

9 A. As shown in Exhibit__(AEB-3), the long-term growth rate of 5.50 percent
10 is based on the real GDP growth rate of 3.16 percent from 1929 through
11 2021,⁸⁰ and a projected inflation rate of 2.27 percent. The projected rate of
12 inflation is based on three measures: (1) the average long-term projected
13 growth rate in the Consumer Price Index (“CPI”) of 2.20 percent, as
14 reported by Blue Chip Financial Forecasts;⁸¹ (2) the compound annual
15 growth rate of the CPI for all urban consumers for 2032-2050 of 2.35
16 percent as projected by the Energy Information Administration (“EIA”) in
17 the Annual Energy Outlook 2022; and (3) the compound annual growth rate
18 of the GDP chain-type price index for 2032-2050 of 2.27 percent, also
19 reported by the EIA in the Annual Energy Outlook 2022.⁸²

20

⁸⁰ U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Tables, Table 1.1.6, March 30, 2022.

⁸¹ Blue Chip Financial Forecasts, Vol. 40, No. 12, December 1, 2021, at 14.

⁸² U.S. Energy Information Administration, Annual Energy Outlook 2022, Table 20.

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1 **Q. Why is the long-term GDP growth rate a reasonable estimate of long-**
2 **term growth in the multi-stage DCF model?**

3 A. Long-term estimates of GDP growth are commonly used in regulatory
4 proceedings as a proxy for the long-term growth rate in the multi-stage DCF
5 analysis. That application is based on the common theoretical assumption
6 that, over the long-run, all companies in the economy will tend to grow at
7 the same constant rate. That assumption is designed to address the
8 uncertainty associated with estimating individual company growth rates
9 over very long time horizons and is not meant to suggest that company
10 growth rates in the economy will indeed converge in practice over any given
11 period.

12
13 **Q. Is your calculation of GDP growth consistent with the way in which**
14 **other analysts' compute estimates of long-term GDP growth?**

15 A. Yes. Investors understand that the U.S. economy goes through cycles of
16 growth and contraction. Therefore, it is appropriate to consider the longest
17 period possible to measure historical real growth in GDP. This view is
18 consistent with Morningstar's explanation about measuring GDP growth:

19 Growth in real GDP (with only a few exceptions) has been
20 reasonably stable over time; therefore, its historical performance
21 is a good estimate of expected long-term future performance.
22 By combining the inflation estimate with the real growth rate
23 estimate, a long-term estimate of nominal growth is formed..⁸³

⁸³ Ibbotson and Associates, Stocks, Bonds, Bills and Inflation, 1926-2012, 2013 Valuation Yearbook, at 52.

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Furthermore, Morningstar supports the use of long-term historical data:

The 87-year period starting with 1926 is representative of what can happen: it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect “unusual” events to occur from time to time, and their return expectations reflect this..⁸⁴

Q. How does your estimate of long-term growth differ from the estimate the Commission has traditionally relied on?

A. The final stage of both the two-stage DCF model that the Commission has relied on and my multi-stage DCF model extends into the future indefinitely. My long-term growth estimate reflects investors’ long-term growth expectations for the period from 2032 through 2050. Therefore, the third stage of my multi-stage DCF model reflects investor growth expectations beginning in the first year of the third stage of the model. In contrast, the growth estimate for the two-stage model that the Commission has typically relied on is based on short-term growth rate forecasts. The use of the sustainable growth rate, calculated using Value Line’s published projections, provides an estimate of growth four- to six-years in the future. Relying on the sustainable growth rate in perpetuity in the second stage of

⁸⁴ *Id.*, at 59.

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1 a two-stage DCF model does not provide a long-run estimate of growth.
2 Rather, the use of the sustainable growth rate assumes that the short-term
3 estimate for the four- to six-year period from the Value Line report date is
4 sustained in perpetuity.

5
6 In contrast, the long-term growth rate in my DCF analyses reflects both
7 economic forecasts and market-derived projections of inflation over the
8 longest available time period (20 or more years). Those estimates of long-
9 term inflation expectations are combined with the long-term average
10 historical real GDP growth rate to calculate an expected nominal GDP
11 growth rate. Consequently, the long-term growth estimate in my multi-
12 stage DCF model represents investors' and economists' views of nominal
13 long-term GDP growth well beyond the time horizon reflected in the four-
14 to six year Value Line sustainable growth estimate relied on by the
15 Commission in prior cases.

16
17 **Q. Does the use of Value Line data to develop the sustainable growth rate**
18 **address concerns about growth rate bias?**

19 A. No. The sustainable growth rate is the sum of retention growth plus an SV
20 factor,⁸⁵ calculated using Value Line data. As such, the sustainable growth
21 rate estimate that the Commission has relied upon is based on a single

⁸⁵ Retention growth is the product of the expected earned ROE and the retention ratio (one minus the dividend payout ratio). The SV factor employs an estimate of the market-to-book ratio and the expected expansion rate of outstanding shares of common stock in the future.

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1 analyst's viewpoint of a company's projected four- to six-year growth
2 prospects.

3

4 **Q. Are there other problems with the use of the sustainable growth rate as**
5 **an estimate of long-term growth?**

6 A. Yes. Using the sustainable growth rate to estimate the long-term growth of
7 the company uses a very narrowly defined set of short-term projections
8 based on Value Line data. Specifically, it relies on the following
9 assumptions: (1) projected dividends for year 2; (2) projected dividends for
10 years 4-6; (3) projected earnings for years 4-6; (4) projected book value for
11 year 2; (5) projected book value for years 4-6; (6) current estimate of actual
12 outstanding shares of stock; (7) projected shares of outstanding stock for
13 years 4-6; and (8) current three-month stock price. Each of these
14 assumptions is estimated at most for 6 years into the future. As defined
15 using these assumptions, the sustainable growth rate, which is applied over
16 the long-term in the Commission's two-stage model, does not consider any
17 actual long-term forecasts for the specific company or the economy.

18

19 **Q. What is your conclusion regarding the methodology typically relied on**
20 **by the Commission to estimate the sustainable growth rate in the two-**
21 **stage DCF model?**

22 A. There are several reasons why the Commission's sustainable growth rate
23 should not be relied on in the two-stage DCF model. First, the sustainable

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1 growth rate is not a long-term measure of growth and as such should not be
2 applied in perpetuity in the second stage of the model. Second, the
3 exclusive use of Value Line data, which is a single analyst's viewpoint, to
4 establish the sustainable growth rate assumes that investors do not consider
5 any of the other financial information that is widely available when
6 establishing future dividend expectations. In addition, the sustainable
7 growth rate calculation includes Value Line's ROE projections as an input,
8 implicitly accepting them as reasonable. However, Value Line's ROE
9 projections are often significantly different from the ROE estimates
10 produced by the two-stage DCF model. Finally, the Commission's
11 sustainable growth rate methodology implicitly assumes that investors
12 establish long-term growth expectations based entirely on short-term,
13 company-specific projections. It is unreasonable to conclude that investors
14 would ignore the expectations of long-term macroeconomic growth in
15 establishing the long-term growth estimates for an electric or natural gas
16 distribution utility or any other company.

17
18 **Q. Have other regulatory Commissions reconsidered the use of the**
19 **sustainable growth rate in the ROE estimation methodology?**

20 A. Yes. The FERC's long-standing methodology for setting the ROE in utility
21 proceedings was to rely on a single stage DCF model that used two
22 estimates of short-term growth: 1) analysts' estimates of earnings growth,
23 as published by IBES and; 2) the sustainable growth rate, calculated using

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1 the $(b \cdot r) + (s \cdot v)$ components that are used by this Commission. The FERC
2 acknowledged that the sustainable growth rate is not a measure of long-term
3 growth but is another estimate of short-term growth similar to analysts'
4 earnings projections.

5
6 In Opinion No. 531, the FERC determined that it was appropriate to move
7 from a constant growth DCF methodology to a two-stage DCF model for
8 public utility rate cases.⁸⁶ In moving to the two-stage DCF, FERC now
9 relies on analysts' estimates of earnings growth in the short-term and a long-
10 term GDP growth rate as the measure of growth in the second stage. The
11 FERC's two-stage model does not rely on a sustainable growth calculation.
12 The use of analysts' estimates of earnings growth in the short-term and a
13 long-term GDP growth rate as the measure of growth in the second stage
14 was unchanged in the recently issued Opinion No. 569-A by FERC.⁸⁷

15
16 **Q. What are the results of your DCF analyses?**

17 A. As shown in Exhibit __ (AEB-2), the multi-stage DCF analysis based on a
18 three-month average stock price and a range of near-term growth rate
19 assumptions produces a mean ROE of 9.22 percent for the Combined Utility
20 Proxy Group.

21

⁸⁶ Opinion No. 531 147 FERC ¶ 61,234 (June 19, 2014).

⁸⁷ FERC, Docket No. EL 14-12-004, et al., Order on Rehearing, issued May 21, 2020, at para. 57.

1 **Q. Does the multi-stage DCF model discussed above address your concern**
2 **about low dividend yields?**

7

15

17 **Q. Please briefly describe the Capital Asset Pricing Model.**

23

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where:

k_e = the required market ROE

β = Beta coefficient of an individual security

r_f = the risk-free rate of return

r_m = the required return on the market as a whole

In this specification, the term $(r_m - r_f)$ represents the market risk premium.

According to the theory underlying the CAPM, investors should be concerned only with systematic or non-diversifiable risk because unsystematic risk can be diversified away. Non-diversifiable risk is measured by the Beta coefficient, which is defined as:

$$\beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \quad [3]$$

The variance of the market return, noted in Equation [3], is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the market reflects the extent to which the return on that security will respond to a given change in the market return.

Q. What risk-free rate did you use in your CAPM model?

A. I used three estimates of the yield on Treasury bonds: (1) the current three-month average yield on 30-year Treasury bonds (2.26 percent);⁸⁸ (2) the projected 30-year Treasury yield for Q3 2022 through Q3 2023 (3.12 percent);⁸⁹ and (3) the projected 30-year Treasury yield for the period 2023-

⁸⁸ Bloomberg Professional.

⁸⁹ Blue Chip Financial Forecasts, Vol. 41, No. 4, April 1, 2022, p. 2.

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1 2027 (3.40 percent).⁹⁰ In determining the security most relevant to the
2 application of the CAPM, it is important to select the term (or maturity) that
3 best matches the life of the underlying investment. As noted by
4 Morningstar:

5 The traditional thinking regarding the time horizon of the chosen
6 Treasury security is that it should match the time horizon of
7 whatever is being valued... Note that the horizon is a function
8 of the investment, not the investor. If an investor plans to hold
9 stock in a company for only five years, the yield on a five-year
10 Treasury note would not be appropriate since the company will
11 continue to exist beyond those five years..⁹¹

12
13 Because utility companies represent long-duration investments, it is
14 appropriate to use yields on long-term Treasury bonds as the risk-free rate
15 component of the CAPM. In my view, the 30-year Treasury bond is the
16 appropriate security for that purpose. Because the cost of capital is intended
17 to be forward-looking, it is appropriate to consider projected measures of
18 the market risk premium and interest rates.

19
20 **Q. Does your use of the 30-year Treasury bond yield suggest that all**
21 **investors have an investment horizon of 30 years?**

22 A. No, it does not. As discussed above, the appropriate factor to consider in
23 determining what duration bond to use is the expected life of the assets. As

⁹⁰ Blue Chip Financial Forecasts, Vol. 40, No. 12, December 1, 2021, p. 14.

⁹¹ Morningstar Inc., Ibbotson SBBI 2013 Valuation Yearbook, at 44.

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1 noted by Morningstar, the use of the 30-year Treasury bond best matches
2 the life of the assets being valued, not the time horizon of the investor.

3

4 **Q. Would you place more weight on one of these scenarios?**

5 A. Yes. Based on current market conditions, I place more weight on the results
6 of the projected yields on the 30-year Treasury bonds. As discussed
7 previously, the estimation of the cost of equity in this case should be
8 forward-looking because it is the return that investors would receive over
9 the future rate period. Therefore, the inputs and assumptions used in the
10 CAPM analysis should reflect the expectations of the market at that time.
11 While I have included the results of a CAPM analysis that relies on the
12 current average risk-free rate, this analysis fails to take into consideration
13 the effect of the market's expectations for interest rate increases on the cost
14 of equity.

15

16 **Q. What Beta coefficients did you use in your CAPM analysis?**

17 A. As shown in Exhibit __ (AEB-4), I used the Beta coefficients for the proxy
18 group companies as reported by Bloomberg and Value Line. The Beta
19 coefficients reported by Bloomberg were calculated using ten years of
20 weekly returns relative to the S&P 500 Index. Value Line's calculation is
21 based on five years of weekly returns relative to the New York Stock
22 Exchange Composite Index.

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1 Additionally, as shown in Exhibit__(AEB-5), I also considered an
2 additional CAPM analysis which relies on the long-term average utility
3 Beta coefficient for the companies in my proxy group. The long-term
4 average utility Beta coefficient was calculated as an average of the Value
5 Line Beta coefficients for the companies in my proxy group from 2017
6 through 2021.

7
8 **Q. How did you estimate the Market Risk Premium in the CAPM?**

9 A. I estimated the Market Risk Premium (“MRP”) as the difference between
10 the implied expected equity market return and the risk-free rate. As shown
11 in Exhibit__(AEB-6), the expected return on the S&P 500 Index is
12 calculated using the Constant Growth DCF model for the companies in the
13 S&P 500 Index. In my calculation of the market return, I included
14 companies in the S&P 500 that: 1) had either a dividend yield or Value Line
15 long-term earnings projection; and 2) had a Value Line long-term earnings
16 growth rate that was greater than 0 percent and less than or equal to 20
17 percent. Based on an estimated market capitalization-weighted dividend
18 yield of 1.61 percent and a weighted long-term growth rate of 10.99 percent,
19 the estimated required market return for the S&P 500 Index is 12.68 percent.

1 Q. Is your calculation of the market risk premium consistent with the
2 methodology relied upon in previous cases before the Commission?

10

A. Yes. In prior proceedings, the Commission has relied upon the Zero-Beta CAPM (the form of which is sometimes referred to as the “Empirical CAPM”.⁹³) in estimating the cost of equity. The Zero-Beta CAPM calculates the product of the adjusted Beta coefficient and the market risk premium and applies a weight of 75.00 percent to that result. The model then applies a 25.00 percent weight to the market risk premium, without any effect from the Beta coefficient. The results of the two calculations are summed, along with the risk-free rate, to produce the Zero-Beta CAPM result, as noted in Equation [4] below:

21

92

95

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1 where:

2 k_e = the required market ROE

3 β = Adjusted Beta coefficient of an individual security

4 r_f = the risk-free rate of return

5 r_m = the required return on the market as a whole

6 In essence, the Zero-Beta form of the CAPM addresses the tendency of the
7 “traditional” CAPM to underestimate the cost of equity for companies with
8 low Beta coefficients such as regulated utilities. In that regard, the Zero-
9 Beta CAPM is not redundant to the use of adjusted Betas; rather, it
10 recognizes the results of academic research indicating that the risk-return
11 relationship is different (in essence, flatter) than estimated by the CAPM,
12 and that the CAPM underestimates the “alpha,” or the constant return
13 term.⁹⁴

14
15 As with the CAPM, my application of the Zero-Beta CAPM uses the
16 forward-looking market risk premium estimates, the three yields on 30-year
17 Treasury securities noted earlier as the risk-free rate, and the Bloomberg,
18 Value Line and long-term average Beta coefficients.

19
20 Exhibit __ (AEB-4) shows the results of the CAPM models for the Combined
21 Utility Proxy Group. The traditional CAPM model results range from 9.84

⁹⁴ *Id.* at 191.

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percent to 11.47 percent. The Zero-Beta CAPM model results range from 10.55 percent to 11.77 percent.

C. Weighted Average Results

Q. Please summarize the results of your analysis and your recommended ROE.

A. As shown in Figure 10 (below), I have presented the results including an equal weighting of the DCF and CAPM results and the RD's proposed 2/3 weighting of the DCF and 1/3 weighting of the CAPM.

Figure 10: Weighted Average Analytical Results.⁹⁵

	Low	Mean	High
Multi-Stage DCF	8.97%	9.22%	9.47%
Traditional CAPM	10.55%	10.72%	10.78%
Zero-Beta CAPM	11.08%	11.21%	11.26%
Mean CAPM	10.81%	10.97%	11.02%
50%/50% DCF/CAPM	9.89%	10.09%	10.24%
67%/33% DCF/CAPM	9.58%	9.80%	9.98%

⁹⁵ The DCF results presented in Figure 10 reflect the results of the models using low, average and high growth rate assumptions. The range of results for the CAPM is based on three interest rate scenarios, a historical average, a five-quarter projection and a long-term projection.

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1 **Q. What was the Commission’s reasoning for developing its weighting of**
2 **the DCF and CAPM methodologies in the RD?**

3 A. At the time of the RD, the Commission did not have a significant amount
4 of experience with the CAPM. The RD noted that the Commission had
5 historically used the CAPM as a check on its DCF results, and was
6 somewhat undecided as to “how far the Commission should go in elevating
7 the status of CAPM.”⁹⁶ The RD opted for a gradual transition towards the
8 CAPM, ultimately settling on a 1/3 weighting, indicating that “proposals
9 have simply not shown that the CAPM should be raised all at once to parity
10 with the DCF analysis in the setting of returns on equity.”⁹⁷ To the extent
11 that this was a consideration in the RD’s weighting determination, the
12 Commission’s 25 years of experience with the CAPM since that time
13 provides a sound basis for altering the weighting of the two ROE
14 methodologies.

15
16 **Q. Please summarize your conclusion regarding the relative weighting of**
17 **the CAPM and DCF results.**

18 A. While the RD proposed the 2/3 weighting on the DCF, the weightings and
19 methodologies used to estimate the ROE were left open for additional
20 consideration in future rate proceedings. Since then, the Commission has
21 employed the CAPM as one component of the formula used to develop ROE
22 estimates. There does not appear to be any reason to infer that the

⁹⁶ RD, at 27.

⁹⁷ *Ibid.*

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1 Commission has less confidence in the results of the CAPM than those of
2 the DCF. The conditions that warranted the Commission's GFP inquiry and
3 the subsequent RD in the early 1990s exist again today with DCF results
4 considerably lower than those from other models, such as the CAPM, as
5 well as returns authorized in other jurisdictions. Finally, to the extent that
6 dividend yields are low relative to historical levels and could increase as
7 yields on government bonds rise, the DCF model is likely to underestimate
8 the cost of equity. Therefore, it is reasonable to apply equal weighting to
9 the DCF and CAPM methods when determining the ROE for the
10 Companies.

11
12 **Q. Are the assumptions used in the CAPM less reliable than the**
13 **assumptions used in the DCF model?**

14 A. Not necessarily. As discussed previously, the CAPM relies on a risk-free
15 rate, Beta and the MRP. The risk-free rate is readily observable and can be
16 projected for the forward-looking period. Beta is estimated using the
17 historical relationship between the risk of the stock and the overall market.
18 Finally, the market risk premium, while not observable, can be estimated
19 for the forward-looking period. My testimony discusses how the dividend
20 yield has been affected by market conditions and therefore, while this
21 assumption may be easy to calculate using historical data, it is not
22 representative of forward-looking market conditions. Therefore, while the
23 CAPM is often criticized as relying on unobservable assumptions, currently

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1 the dividend yield in the DCF model is not reflective of projected market
2 conditions.

4 VII. REGULATORY AND BUSINESS RISKS

5 A. Capital Expenditures

6 **Q. Please summarize the projected capital expenditure requirements for**
7 **NYSEG and RG&E.**

8 A. The combined capital expenditure projections for NYSEG and RG&E are
9 approximately \$9.8 billion for the period from 2022 through 2026. The
10 Companies' program includes significant projects including the Advanced
11 Metering Infrastructure ("AMI") program, the Distributed System
12 Implementation Plan ("DSIP"), the Bulk Electric System ("BES") program,
13 Resiliency, and the Rochester Area Reliability Project ("RARP").⁹⁸

15 **Q. How are the Companies' risk profiles affected by their substantial**
16 **capital expenditure requirements?**

17 A. As with any utility faced with substantial capital expenditure requirements,
18 the Companies' risk profile may be adversely affected in two significant
19 and related ways: (1) the heightened level of investment increases the risk
20 of under-recovery or delayed recovery of the invested capital; (2) a sharp
21 increase in construction work in progress, which must be financed before it

⁹⁸ Source: Direct Testimony of Electric, Generation and Common Capital Expenditures Panel and Direct Testimony of Gas and Common Capital Expenditures Panel

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enters rate base will degrade credit metrics, and (3) an inadequate return would put downward pressure on key credit metrics.

Q. Do credit rating agencies recognize the risks associated with significant capital expenditures?

A. Yes, they do. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit metrics and, therefore, credit ratings. To that point, S&P explains the importance of regulatory support for large capital projects:

When applicable, a jurisdiction's willingness to support large capital projects with cash during construction is an important aspect of our analysis. This is especially true when the project represents a major addition to rate base and entails long lead times and technological risks that make it susceptible to construction delays. Broad support for all capital spending is the most credit-sustaining. Support for only specific types of capital spending, such as specific environmental projects or system integrity plans, is less so, but still favorable for creditors. Allowance of a cash return on construction work-in-progress or similar ratemaking methods historically were extraordinary measures for use in unusual circumstances, but when construction costs are rising, cash flow support could be crucial to maintain credit quality through the spending program. Even more favorable are those jurisdictions that present an opportunity for a higher return on capital projects as an incentive to investors..⁹⁹

⁹⁹ S&P Global Ratings, Ratings Direct, "Assessing U.S. Investor-Owned Utility Regulatory Environments," August 10, 2016, at 7.

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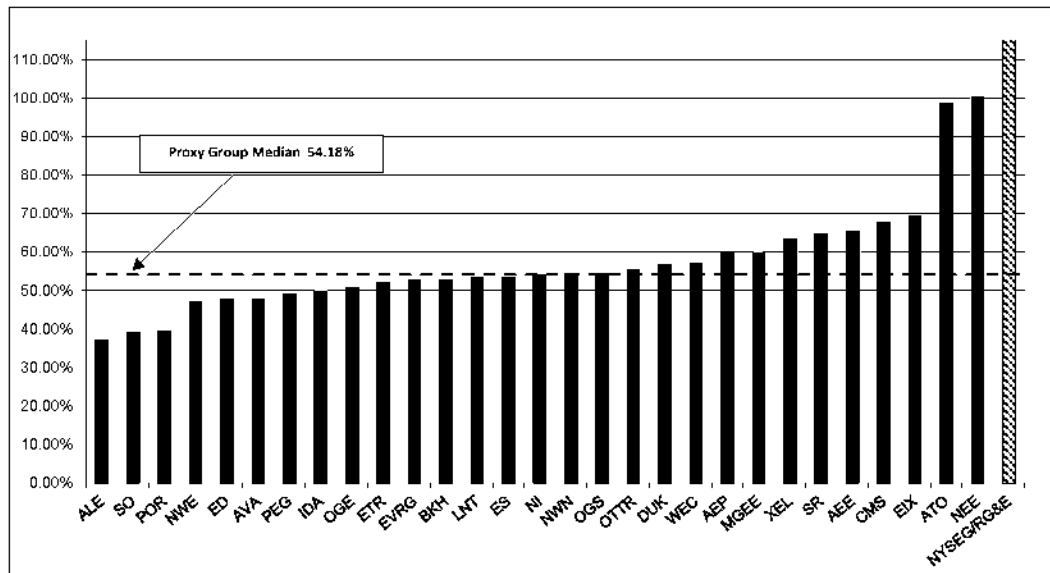
1 Therefore, to the extent that the Companies' rates do not permit the
2 opportunity to recover its capital investments on a regular and timely basis,
3 the Companies will face increased recovery risk and thus increased pressure
4 on its credit metrics.

5
6 **Q. Have you conducted any analysis of the Companies' projected capital**
7 **expenditures relative to the proxy companies?**

8 A. Yes. I compared the ratio of projected capital expenditures from 2022
9 through 2026 to net utility plant as of December 31, 2020, for NYSEG and
10 RG&E with each of the Combined Utility Proxy Group companies.
11 Exhibit__(AEB-7) shows the ratio of five years of projected capital
12 expenditures to net plant for the proxy group based on data reported by
13 Value Line. Figure 11 demonstrates that NYSEG and RG&E's ratio of
14 projected capital expenditures to net plant are higher than most of the proxy
15 group members. Furthermore, as shown in Exhibit__(AEB-7), NYSEG and
16 RG&E's combined planned investment ratio of approximately 123 percent
17 is well above the median of the proxy group of 54.18 percent, which
18 suggests that the Companies face greater risk from their construction
19 programs than the proxy group on average.

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Figure 11: Comparison of Capital Expenditures – Proxy Group Companies



Q. What are your conclusions regarding the effect of the projected capital expenditure plans on the risk profiles of NYSEG and RG&E and the cost of equity?

A. It is clear that the Companies' capital expenditure requirements as a percentage of net utility plant are higher than the majority of the Combined Utility Proxy Group companies. This elevated level of capital expenditures relative to the Combined Utility Proxy Group increases the importance of setting a return for NYSEG and RG&E that is within the range of reasonableness as established by the returns for that group.

B. Regulatory Environment

Q. Please explain how the regulatory framework affects investors' risk assessments.

A. The ratemaking process is premised on the principle that, for investors and companies to commit the capital needed to provide safe and reliable utility

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1 services, the subject utility must have the opportunity to recover invested
2 capital and the market-required return on such capital. Regulatory
3 commissions recognize that because utility operations are capital intensive,
4 regulatory decisions should enable the utility to attract capital at reasonable
5 terms, which balances the long-term interests of investors and customers.
6 In that respect, the regulatory framework in which a utility operates is one
7 of the most important factors considered in both debt and equity investors'
8 risk assessments.

9
10 Because investors have many investment alternatives, even within a given
11 market sector, the Companies' authorized returns must be adequate on a
12 relative basis to ensure their ability to attract capital under a variety of
13 economic and financial market conditions. From the perspective of debt
14 investors, the authorized return should enable the Companies to generate
15 the cash flow needed to meet their near-term financial obligations, make the
16 capital investments needed to maintain and expand their systems, and
17 maintain sufficient levels of liquidity to fund unexpected events. This
18 financial liquidity must be derived not only from internally generated funds,
19 but also from efficient access to capital markets.

20
21 From the perspective of equity investors, the authorized return must be
22 adequate to provide a risk-comparable return on the equity portion of the
23 Companies' capital investments. Because equity investors are the residual

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claimants on the Companies' cash flows (that is, debt interest must be paid prior to any equity dividends), equity investors are particularly concerned with the regulatory framework in which a utility operates and its effect on future earnings and cash flows.

Q. Please explain how credit rating agencies consider the regulatory framework in establishing a company's credit rating.

A. S&P and Moody's both consider the overall regulatory framework in establishing credit ratings. As shown in Figure 12, Moody's establishes credit ratings based on four key factors:

Figure 12: Moody's Rating Factors

Factor	Weighting
Regulatory Framework	25%
Ability to Recover Costs and Earn Returns	25%
Diversification	10%
Financial Strength	40%
Total	100%

Two of these factors (*i.e.*, regulatory framework and the ability to recover costs and earn returns) are based on the regulatory environment such that half of Moody's overall assessment of business and financial risk for regulated utilities is based upon the regulatory environment.¹⁰⁰ Therefore,

¹⁰⁰ Moody's Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 4.

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1 Moody's assigns regulatory risk a 50.0 percent weighting in the overall
2 assessment of business and financial risk for regulated utilities..¹⁰¹

3
4 S&P also identifies the regulatory framework as an important factor in
5 credit ratings for regulated utilities, stating: "One significant aspect of
6 regulatory risk that influences credit quality is the regulatory environment
7 in the jurisdictions in which a utility operates.." ¹⁰² S&P identifies four
8 specific factors that it uses to assess the credit implications of the regulatory
9 jurisdictions of investor-owned regulated utilities: (1) regulatory stability;
10 (2) tariff-setting procedures and design; (3) financial stability; and (4)
11 regulatory independence and insulation..¹⁰³

12
13 **Q. How does the regulatory environment in which a utility operates affect**
14 **its access to and cost of capital?**

15 A. The regulatory environment can significantly affect both the access to, and
16 cost of capital in several ways. First, the proportion and cost of debt capital
17 available to utility companies are influenced by the rating agencies'
18 assessment of the regulatory environment. As noted by Moody's, "[f]or
19 rate regulated utilities, which typically operate as a monopoly, the
20 regulatory environment and how the utility adapts to that environment are

¹⁰¹ *Ibid.*

¹⁰² Standard & Poor's Global Ratings, Ratings Direct, U.S. and Canadian Regulatory Jurisdictions Support Utilities' Credit Quality—But Some More So Than Others, June 25, 2018, at 2.

¹⁰³ *Id.*, at 1.

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1 the most important credit considerations.”¹⁰⁴ Moody’s further highlighted
2 the relevance of a stable and predictable regulatory environment to a
3 utility’s credit quality, noting: “[b]roadly speaking, the Regulatory
4 Framework is the foundation for how all the decisions that affect utilities
5 are made (including the setting of rates), as well as the predictability and
6 consistency of decision-making provided by that foundation.”¹⁰⁵

7
8 **Q. Have you performed an analysis of the level of regulatory support that**
9 **the Companies receive in New York as compared to the proxy group**
10 **companies?**

11 A. Yes. I conducted an analysis of the regulatory protections that are in place
12 for NYSEG and RG&E compared with those for the operating utility
13 companies held by the proxy group companies. The results of my analysis
14 are presented in Exhibit__ (AEB-8). Specifically, I examined the following
15 factors that affect the business risk of the Companies and the proxy group
16 companies: (1) test year convention; (2) fuel cost recovery; (3) method for
17 determining rate base (i.e., average vs. year-end); (4) non-volumetric rate
18 design (i.e., straight fixed variable rate design, revenue decoupling and
19 formula rate plans); and (5) capital cost recovery.

¹⁰⁴ Moody’s Investors Service, Rating Methodology: Regulated Electric and Gas Utilities, June 23, 2017, at 6.

¹⁰⁵ *Id.*

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1 As shown in Exhibit ____ (AEB-8), 51.39 percent of the operating
2 companies (i.e., 74 out of 144) in the proxy group provide service in
3 jurisdictions that allow the use of a fully or partially forecast test year. It is
4 important to recognize that fuel and purchased power costs typically
5 account for a significant amount of the total operating costs for a regulated
6 utility. Like the Companies, all of the proxy companies have either
7 purchased power or fuel cost recovery mechanisms. 44.44 percent of the
8 operating companies held by proxy group are allowed to use year-end rate
9 base, meaning that the rate base includes capital additions that occurred in
10 the second half of the test year and is more reflective of net utility plant
11 going forward while the Companies' rate base is determined based on the
12 average of the beginning and ending test year rate base balances.
13 Additionally, roughly 61.81 percent (i.e., 89 out of 144) have non-
14 volumetric rate design through either straight fixed variable rate design,
15 revenue decoupling mechanisms or formula rate plans that allow them to
16 break the link between customer usage and revenues. Finally, 56.94 percent
17 of the operating utilities held by the proxy group (82 out of 144) have capital
18 cost recovery mechanisms that allow them to recover capital investments
19 that are placed into service between rate cases.

20

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1 **Q. Based on these analyses, what is your conclusion regarding the level of**
2 **regulatory support for NYSEG and RG&E relative to that of the proxy**
3 **group companies?**

4 A. My conclusion is that NYSEG and RG&E have comparable regulatory
5 protection to the proxy group companies. While the Commission has been
6 a leader in implementing mechanisms that reduce the business risk of
7 regulated utilities in New York, many other jurisdictions have taken similar
8 steps in more recent years. A November 2015 report published by the
9 Edison Electric Institute indicates that more and more jurisdictions have
10 moved toward the use of forecast test years since the 2013 survey;¹⁰⁶ fuel
11 cost recovery mechanisms have been ubiquitous for many years; revenue
12 decoupling and weather normalization clauses have been approved in many
13 states, especially where declining usage per customer is a concern;¹⁰⁷ and
14 many states have approved capital tracking mechanisms that reduce the
15 regulatory lag associated with significant investments to enhance reliability,
16 service quality and safety.¹⁰⁸ Furthermore, a more recent report published

¹⁰⁶ Edison Electric Institute, "Alternative Regulation for Emerging Utility Challenges: 2015 Update," prepared by Pacific Economics Group, November 11, 2015, at 32. (EEI report states: "The ranks of US jurisdictions that allow the use of forward test years have swollen and now encompasses about half of the total. Since our 2013 survey, electric utilities in Pennsylvania have successfully used FTYs and utilities in Arkansas and Indiana have received legislative authorization for their use. Forward test years are the norm in Canadian regulation.")

¹⁰⁷ *Id.*, at 21. (EEI report states: "In the electric utility industry, decoupling has been favored in states that strongly support DSM. Since our 2013 survey, decoupling has been adopted for electric utilities in Connecticut, Maine, Minnesota, and Washington state. Decoupling is the most widespread means of relaxing the revenue/usage link for gas distributors. This reflects the fact that gas distributors often experience declining average use and that this has been driven chiefly by external forces.")

¹⁰⁸ *Id.*, at 7. (EEI report states: "It can be seen that the precedents are numerous and continue to grow. This is the most widely used Altreg tool in the United States. For electric utilities, trackers for emissions controls, generation capacity, advanced metering infrastructure, and

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1 in April 2021 in Public Utilities Fortnightly noted the prevalence of revenue
2 decoupling mechanism across the US:

3 States that have tried electric and gas decoupling are shown in
4 Figures 1 and 2. It can be seen that decoupling has been
5 approved for at least one gas or electric utility in more than thirty
6 jurisdictions. Decoupling is particularly widespread in gas
7 distribution, where it is currently used in twenty-four
8 jurisdictions.

9 In the electric utility industry, decoupling is currently used in
10 nineteen jurisdictions. -is count includes decoupling approvals
11 by regulators in two jurisdictions that take effect in July. It has
12 been particularly favored in states that strongly support DSM.
13 Use of decoupling is growing, with approvals in the last ve years
14 for electric utilities in Vermont, New Jersey, New Hampshire,
15 and Montana. In several jurisdictions, utilities are required to
16 operate under revenue decoupling by legislation or commission
17 policy..¹⁰⁹

18
19 **Q. Have you developed any additional analyses to evaluate the regulatory**
20 **environment in New York as compared to the jurisdictions in which the**
21 **companies in your proxy group operate?**

22 **A.** Yes. I have conducted two additional analyses to compare the regulatory
23 framework of New York to the jurisdictions in which the companies in the
24 proxy group operate. Specifically, I considered two different rankings: (1)
25 the Regulatory Research Associates (“RRA”) ranking of regulatory
26 jurisdictions; and (2) S&P’s ranking of the credit supportiveness of
27 regulatory jurisdictions.

¹⁰⁹ general system modernization have been especially common in recent years. Trackers for gas distributors typically address the cost of replacing old cast iron and bare steel mains.”) Mark Lowry and Matt Makos, “Revenue Decoupling at 40,” Public Utilities Fortnightly, April 2021.

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1

2 **Q. Please explain how you used the RRA ratings to compare the**
3 **regulatory jurisdictions of the proxy companies with the Companies'**
4 **regulatory jurisdiction.**

5 A. RRA assigns a ranking for each regulatory jurisdiction between "Above
6 Average/1" to "Below Average/3," with nine total rankings between these
7 categories. I applied a numeric ranking system to the RRA rankings with
8 "Above Average/1" assigned the highest ranking ("1") and "Below
9 Average/3" assigned the lowest ranking ("9"). As shown on
10 Exhibit __ (AEB-9), the New York jurisdictional ranking ("Average/2" -
11 "5.0") was slightly below the proxy group average ranking ("Average/1 -
12 Average/2" - "4.63") from RRA.

13

14 **Q. How did you conduct your analysis of the S&P credit supportiveness?**

15 A. For credit supportiveness, S&P classifies each regulatory jurisdiction into
16 five categories that range from "Credit Supportive" to "Most Credit
17 Supportive." My analysis of the credit supportiveness of the regulatory
18 jurisdictions that the proxy companies operate in, as compared with the
19 Companies' regulatory jurisdiction, was similar to the analysis of the RRA
20 overall regulatory ranking discussed above. I assigned a numerical ranking
21 to each category, from Most Credit Supportive ("1") to Credit Supportive
22 ("5"). As shown in Exhibit __ (AEB-10), the proxy group average ranking
23 was 2.43, which would be classified between "Highly Credit Supportive"

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1 and “Very Credit Supportive”, and is slightly above the New York
2 jurisdictional classification of “Very Credit Supportive” (“3”), suggesting
3 investors perceive regulation for the Companies as slightly below average
4 relative to the proxy groups.

5
6 **Q. What is your conclusion regarding the regulatory framework in New**
7 **York as compared with the jurisdictions in which the proxy group**
8 **companies operate?**

9 A. The regulatory framework in which a regulated utility provides service is
10 one of the most important considerations for debt and equity investors.
11 Based on my analysis, I conclude that New York’s regulatory framework
12 has somewhat greater risk than the jurisdictions in which the proxy group
13 companies provide service. While the differences are not great, my analysis
14 demonstrates that investors perceive regulation for the Companies as
15 slightly below average relative to the proxy group. There is certainly no
16 indication that the business, regulatory and financial risks of the Companies
17 (or other New York utilities) are lower than the industry average. That is,
18 while the various regulatory mechanisms available to New York utilities
19 may serve to mitigate certain incremental business risks, they are not more
20 extensive than those available to the proxy companies, so they do not reduce
21 business risk in a comparative analysis. The Commission, however, has
22 authorized ROEs from 8.80 percent to 9.00 percent since 2018. By
23 comparison, the average authorized ROEs for electric utilities excluding

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1 New York jurisdictional cases were 9.52 percent in 2020, and 9.56 percent
2 in 2021..¹¹⁰ For gas utilities, the average authorized ROEs excluding New
3 York jurisdictional cases were 9.52 percent in 2020 and 9.63 percent in
4 2021..¹¹¹ Therefore, the large differential in the authorized ROE in New
5 York as compared with the nationwide range of returns is not supported by
6 the risk assessment.

7
8 **Q. Have the Rating Agencies commented on the risk of operation in New**
9 **York State?**

10 A. Yes. Both S&P and Moody's have recently viewed New York regulation as
11 credit negative. As discussed above, RRA conducts a ranking of state
12 regulatory jurisdictions across the country. In an update to its rankings in
13 December 2020, New York was downgraded to Average/2 from Average/1:

14 ...reflecting adoption of well-below industry average equity
15 returns in November 2020 electric and gas rate case decisions
16 for Avangrid subsidiaries New York State Electric & Gas and
17 Rochester Gas & Electric, as well as decisions issued earlier in
18 2020 for Consolidated Edison Co. subsidiary Consolidated
19 Edison Co. of New York. The move also reflects the prospects
20 for heightened regulatory scrutiny stemming from Governor
21 Andrew Cuomo's creation of a statewide special counsel for
22 ratepayer protection combined with other political interference
23 by the governor that continues to intensify and thereby
24 compromises the independence of the New York PSC..¹¹²

¹¹⁰ S&P Capital IQ Pro. The average authorized ROE calculation excludes the authorized returns in Vermont and for electric utilities in Illinois since they are established based on a formulaic approach that is directly linked to interest rates and therefore is affected by market conditions and monetary policy.

¹¹¹ S&P Capital IQ Pro..

¹¹² S&P Global Market Intelligence, "RRA Regulatory Focus State Regulatory Evaluations," December 3, 2020 at 3.

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1
2 Additionally, Moody's noted the following when announcing its recent
3 credit rating downgrade of Niagara Mohawk:

4 Several factors incorporated in the proposal will contribute to
5 the weaker financial metrics, including (1) growth in regulatory
6 assets combined with a reduction in regulatory liabilities; and
7 (2) the continuation of relatively low authorized ROE (9.0%)
8 and thin equity layer (48%) in NiMo's assumed capital structure
9 compared to other state regulated utilities operating outside of
10 New York. A key driver of the joint proposal is the desire to
11 limit rate increases for customers. Rate increases will be kept
12 below 2% per annum in each year of the rate plan for both
13 NiMo's electricity and gas operations through the amortization
14 of regulatory liabilities, despite NiMo's ongoing large capital
15 program...¹¹³

16
17 In regard to the New York regulatory environment, Moody's continued to
18 view it as "challenging" indicating:

19 Nevertheless, despite these changes, Moody's continues to view
20 the operating environment as challenging for NiMo and the
21 other New York utilities. Over the past two to three years,
22 political rhetoric and state actions taken towards various New
23 York utilities have created a more uncertain and challenging
24 operating environment for the state's utilities. Various issues
25 around customer service quality (e.g., gas moratoriums,
26 performance in storms and other unforeseen outages) have
27 resulted in a myriad of fines for the state's utilities, although not,
28 to-date, for NiMo. Additionally, the limited rate increases, in
29 recognition of the financial impact of the coronavirus pandemic
30 on customers, may cause rate pressure to build in future years,
31 particularly if accompanied by a more material shortening in
32 regulatory asset lives for NiMo's gas assets to align with the
33 state's ambitious decarbonisation agenda...¹¹⁴

¹¹³ Moody's Investors Service, "Rating Action: Moody's downgrades Niagara Mohawk to Baa1; stable outlook," October 15, 2021.

¹¹⁴ *Ibid.*

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1

2 **Q. Have any New York utilities recently received any ratings actions?**

3 A. Yes. As shown in Figure 13, in addition to Niagara Mohawk noted above,
 4 several utilities companies regulated by the Commission have experienced
 5 multiple credit rating downgrades over the last 4 years. In addition, six
 6 utilities companies including NYSEG and RG&E regulated by the
 7 Commission have been downgraded in 2021 primarily due to weakened
 8 financial metrics as a result of recent rate case decisions. Given these recent
 9 ratings actions and S&P's and Moody's observations regarding the New
 10 York regulatory environment, the Companies' ability to maintain their
 11 credit profile going-forward and avoid further downgrades depends on a
 12 constructive outcome in this case.

13 **Figure 13: Credit Rating Downgraded of New York Utilities**

Utility	Rating Agency	Credit Rating before	Credit Rating after	Downgrade Date
Niagara Mohawk Power Corporation	Moody's	A3	Baa1	10/15/2021
Central Hudson Gas & Electric	Moody's	A3	Baa1	9/22/2021
Rochester Gas and Electric Co	Moody's	A3	Baa1	7/20/2021
New York State Electric & Gas Corporation	Moody's	A3	Baa1	7/20/2021
KeySpan Gas East Corporation (KEDLI)	Moody's	A3	Baa1	6/4/2021
Brooklyn Union Gas Company (KEDNY)	Moody's	Baa1	Baa2	6/4/2021
Orange and Rockland Utilities	Moody's	Baa1	Baa2	1/26/2021
Brooklyn Union Gas Company (KEDNY)	Moody's	A3	Baa1	11/10/2020
Consolidated Edison Company of New York	Moody's	A3	Baa1	3/17/2020
Consolidated Edison, Inc.	Moody's	Baa1	Baa2	3/17/2020
Central Hudson Gas & Electric	Moody's	A2	A3	7/12/2019
Niagara Mohawk Power Corporation	Moody's	A2	A3	3/29/2019
KeySpan Gas East Corporation (KEDLI)	Moody's	A2	A3	3/29/2019
Brooklyn Union Gas Company (KEDNY)	Moody's	A2	A3	2/22/2019
Consolidated Edison Company of New York	Moody's	A2	A3	10/30/2018

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Utility	Rating Agency	Credit Rating before	Credit Rating after	Downgrade Date
Consolidated Edison, Inc.	Moody's	A3	Baa1	10/30/2018
Orange and Rockland Utilities	Moody's	A3	Baa1	10/30/2018

1

2 C. Performance Benchmarks

3 Q. Are there other risks to the Companies that are specific to New York
4 utility regulation?

5 A. Yes. In addition to the low equity returns that are typically authorized by
6 the Commission for New York's gas and electric utilities (in 2021 average
7 authorized ROEs in New York were 68 and 51 basis points below the
8 national average for gas and electric utilities, respectively),¹¹⁵ New York
9 utilities are subject to strictly-enforced customer service quality, electric
10 reliability, and gas safety measures where the utility is required to achieve
11 predetermined performance benchmarks, or be subject to a negative revenue
12 adjustment for any shortfall.

13

14 Q. Please describe the Companies' customer service quality, electric
15 reliability and gas safety measures.

16 A. The Companies are subject to a number of customer service quality and
17 electric reliability, distribution line inspection and gas safety performance

¹¹⁵ Source: S&P Global Market Intelligence, Regulatory Research Associates "RRA Regulatory Focus: Major Rate Case Decisions – January – December 2021," February 10, 2022. The 2021 national average authorized ROEs was 9.39 percent for electric utilities and 9.56 percent for gas utilities in general rate cases, compared to an average authorized ROE of 8.88 percent in New York.

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metrics for which negative revenue adjustments are incurred for specific levels of non-performance. Figure 14 below summarizes the Companies' potential annual exposure to these negative revenue adjustments.

Figure 14: Weighted Summary of Service Quality, Electric Reliability and Gas Safety Performance Metrics

Performance Metric	Maximum Annual Negative Revenue Adjustment NYSEG	Maximum Annual Negative Revenue Adjustment RG&E
Customer Service Quality (Electric and Gas). ¹¹⁶	\$9.52 million	\$5.90 million
Electric Reliability (SAIFI and CAIDI). ¹¹⁷	\$14.00 million	10.00 million
Distribution Line Inspection	\$2.0 million	\$1.25 million
Gas Safety. ¹¹⁸	150 Pre-Tax Base Points	150 Pre-Tax Base Points

Q. Do the negative revenue adjustments associated with these performance metrics differentiate the Companies from the proxy group companies?

A. Yes, they do. Even though the utility regulatory model may be evolving towards incentive regulation as attempts are made to align utility interests with regulatory policy objectives, the addition of asymmetrical rewards and penalties to the utility rate structure remains the exception rather than the

¹¹⁶ Case 19-E-0378, Case 19-G-0379, Case 19-E-0380 and 19-G-0381, Joint Proposal dated May 21, 2020, Appendix P.

¹¹⁷ Case 19-E-0378, Case 19-G-0379, Case 19-E-0380 and 19-G-0381, Joint Proposal dated May 21, 2020, Appendix K.

¹¹⁸ Case 19-E-0378, Case 19-G-0379, Case 19-E-0380 and 19-G-0381, Joint Proposal dated May 21, 2020, Appendix L. The maximum annual negative adjustment was calculated as the sum of the negative revenue adjustments for Leak Prone Mains, Leak Backlog Management, Emergency Response, Gas Safety Violations, and Damage Prevention. Additionally, the Companies can earn a maximum positive annual revenue adjustment of 16 Pre-Tax Base Points if metrics are exceeded for Leak Prone Mains and Leak Backlog Management.

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1 rule. Of those jurisdictions that do employ some form of incentive
2 regulation, it is rare for those programs to be based solely on penalties, or
3 for those programs to result in financial exposure of the magnitude faced by
4 the Companies.

5
6 The mostly penalty-only structure and the magnitude of the Companies'
7 exposure places the Companies at greater risk than the proxy companies on
8 average, which provides support for a cost of equity higher than indicated
9 by the mean results of the proxy group analysis and provides further
10 evidence that the New York model substantially underestimates the
11 Companies' cost of equity.

12 13 **D. Clean Energy Policy**

14 **Q. What are the Commission's plans with respect to the implementation**
15 **of clean energy in New York?**

16 **A.** The Commission is working to implement policies that will achieve the
17 requirements of the CLCPA. The CLCPA requires the elimination of all
18 greenhouse gas emissions from electric production. In addition, the CLCPA
19 requires:

- 20 1. A 40 percent (relative to 1990 levels) reduction in greenhouse
21 gas ("GHG") emissions by 2030;
- 22 2. GHG emissions in New York to be less than 15 percent of 1990
23 levels by 2050, with certain offset provisions that effectively
24 reduce net emissions to zero;

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- 1 3. Increases in renewable resources to 70 percent of all generation
- 2 by 2030;
- 3 4. Development of six Gigawatts (GW) of distributed photovoltaic
- 4 generation by 2025;
- 5 5. Development of nine GW of offshore wind generation by 2035;
- 6 6. Development of three GW of energy storage capacity by 2030;
- 7 and
- 8 7. Conservation of 185 trillion British Thermal Units (BTU) of
- 9 energy use by 2025.

10

11 **Q. Please explain how the Commission's plans to comply with New York**
12 **State's CLCPA affects the Companies' risk profile.**

13 A. The Commission's plans to meet the CLCPA requirements include the
14 electrification of transportation and heating sectors, both of which will
15 require significant investment and will result in the early retirement of
16 existing assets that are currently in service providing service to customers.
17 At this time, while there is a recognition that there will be significant capital
18 investment required to migrate customers from natural gas heating service
19 to electric heat and to transition transportation to electric service, the
20 implementation plans have not been developed to a sufficient level of detail
21 to estimate the magnitude of this investment, the timing of the transition, or
22 the quantification of the early retirement of assets. These unknown
23 implementation plans create substantial financial risk for the New York
24 companies, including NYSEG & RG&E.

25

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1 **Q. Do the proxy companies face similar risks?**

2 A. Not to the same degree. As noted by the National Conference of State
3 Legislatures, at least 16 states have currently enacted legislation which
4 establish GHG emission reduction requirements with reduction
5 requirements ranging from 10 percent by 2020 up to 90 percent by 2050.¹¹⁹
6 As discussed above, the CLCPA requires an 85 percent reduction in GHG
7 emissions as compared to 1990 levels and net-zero GHG emissions by 2050.
8 Therefore, the GHG emission reduction requirements of the CLCPA are at
9 the high-end of the range of emissions reduction requirements enacted by
10 other states. Being on the leading edge of these types of initiatives can create
11 greater uncertainty. In this case, the proxy companies are not engaged in
12 similar programs and therefore are not facing the financial uncertainty
13 associated with a transition that is as expansive as is currently being
14 discussed in New York.

15 **Q. Have rating agencies commented on the effect of the clean energy**
16 **policies of New York on the risk profile of utilities operating in the**
17 **state?**

18 A. Yes, they have. In its report issued on September 17, 2020 in which
19 Moody's downgraded the outlook of NYSEG and RG&E to negative,
20 Moody's noted the following regarding the CLCPA:

¹¹⁹ National Conference of State Legislatures, "Greenhouse Gas Emissions Reduction Targets and Market-based Policies," September 22, 2021, <https://www.ncsl.org/research/energy/greenhouse-gas-emissions-reduction-targets-and-market-based-policies.aspx#one>

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1 The settlement also includes plans to achieve a zero-net increase
2 in billed gas use through the three-year plan. According to the
3 filing, this means that weather-normalized levels of billed gas
4 use for NYSEG and RG&E may not grow beyond the gas use
5 projected for the April 2020 -- April 2021 time frame, or 56
6 million dekatherms for NYSEG and nearly 59 million
7 dekatherms for RG&E. In addition, the proposal puts forth
8 several limitations on gas infrastructure capacity investment,
9 which are to be focused, on developing non-pipeline alternatives
10 and enhancing electrification strategies.

11 We see the agreement as a marked effort to limit the scope of the
12 gas utilities and as a first step to help achieve the state's
13 objectives to limit carbon and methane emissions. While the
14 plan is focused on achieving a net zero increase in billed gas use
15 over the next three years, we expect more significant measures
16 to be implemented over the long-term, since the state's CLCPA
17 targets a 40% reduction of greenhouse gas emissions by 2030
18 and 80% by 2050. Therefore, it is likely that more material gas
19 reductions will follow in the years after the rate plan, which
20 increases risk for the rate base if mitigating measures are not put
21 in place, such as adjustments to gas asset depreciation rates.

22 The long-term erosion of the gas business is a credit negative for
23 that segment, but we recognize that both NYSEG's and RG&E's
24 electric businesses will benefit from the carbon transition. The
25 electric T&D assets should have more rate base investment
26 opportunities in order to absorb the increased demand for
27 electricity, incorporate new renewable generation onto the grid
28 and transport cleaner energy to customers..¹²⁰

29
30 **Q. How should the Commission consider the difference in financial risk**
31 **when setting the ROE for the Companies?**

32 A. Because the increased level of financial risk that NYSEG and RG&E face
33 is not reflected in the market data for the proxy group overall, consistent
34 with the *Hope* and *Bluefield* principles, the Commission should consider an

¹²⁰ Moody's Investor Services, Rating Action: Moody's changes outlooks of NYSEG and Rochester G&E to negative, September 17, 2020.

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1 ROE for the Companies that is higher than the average of the proxy group
2 to reflect the incremental financial risk associated with the CLCPA.

4 VIII. CAPITAL STRUCTURE

5 **Q. Please summarize the companies' proposed capital structure.**

6 A. NYSEG and RG&E are proposing stand-alone capital structures that reflect
7 the Companies' intentions to maintain a 50.00 percent equity ratio during
8 the rate years, which is in line with the capital structures during and at the
9 end of the Test Year. At December 31, 2021 NYSEG's 13-month average
10 and year end equity ratio was 52.78 percent and 48.58 percent,
11 respectively..¹²¹ At December 31, 2021 RG&E's December 31, 2021 13-
12 month average and year end equity ratio was 53.66 percent and 48.97
13 percent, respectively..¹²²

14
15 **Q. What is the Commission's policy on determining the authorized equity**
16 **ratio?**

17 A. The Commission has allowed the use of a stand-alone equity ratio if a utility
18 can demonstrate that the credit rating agencies view that utility's credit on
19 a stand-alone basis independent of its parent..¹²³

¹²¹ NYSEG RRP-6-MY, Schedule A shows the year-end ratio rounded to a whole percentage.
¹²² RG&E RRP-6-MY, Schedule A shows the year-end ratio rounded to a whole percentage.
¹²³ See generally Case 14-E-0493, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Electric Service; Case 14-G-0494, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Orange and Rockland Utilities, Inc. for Gas Service; Case 14-E-0318, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Electric Service; Case 14-G-0319, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations

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2 **Q. Do the credit rating agencies view NYSEG and RG&E credit on a**
3 **stand-alone basis?**

4 A. Yes, they do. The credit rating agencies review and assess the credit risk
5 profile of the individual utility on a stand-alone basis, and both NYSEG and
6 RG&E are rated on their own financial merits and business risk profiles.

7

8 **Q. Please describe how the Moody's reports for NYSEG and RG&E**
9 **demonstrate that Moody's considers the Companies' credit quality on**
10 **a stand-alone basis.**

11 A. In recent reports, Moody's notes that NYSEG and RG&E both have strong
12 ring-fencing provisions that protect the stand-alone ratings. Moody's notes:

13 [NYSEG/RG&E] benefits from a strong suite of ring-fencing
14 type measures that help to insulate the company from the higher
15 business risk of its unregulated affiliate and parent company.
16 Some of the key provisions are: the imposition of a minimum
17 equity ratio tied to the capital structure used in establishing
18 [NYSEG's/RG&E's] rates, a prohibition on lending to
19 unregulated affiliates and a "Special Preferred Share" provision,
20 that adds a significant impediment to [NYSEG/RG&E]
21 becoming part of a voluntary bankruptcy proceeding.

22 While {NYSEG/RG&E} is well positioned to withstand some
23 pressure from a credit deterioration at AGR,
24 [NYSEG's/RG&E's] parent and/or Iberdrola, AGR's majority
25 owner, it is not fully immune should the credit quality drop
26 materially..¹²⁴

27

of Central Hudson Gas & Electric Corporation for Gas Service; and Case 15-E-005,
Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations
of Consolidated Edison Company of New York, Inc. for Electric Service.

¹²⁴ Moody's Investor Services, New York State Electric and Gas Corporation/ Rochester Gas
& Electric Corporation, October 10, 2021 at 5.

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1 We rate NYSEG one notch higher than our 'BBB+' group credit
2 profile because of the strength of its SACP and the cumulative
3 value of the structural and regulatory protections in place that
4 insulate it from its parent. These key insulating measures include:

- 5
- 6 ▪ NYSEG is a separate stand-alone legal entity that functions
7 independently, both financially and operationally; files its
8 own rate cases; and is independently regulated by the
9 NYPSC.
- 10 ▪ NYSEG has its own records and books, including stand-
11 alone audited financial statements.
- 12 ▪ NYSEG has its own funding arrangements, issues its own
13 long-term debt, and has a separate committed credit facility
14 for its short-term funding needs.
- 15 ▪ NYSEG does not commingle funds, assets, or cash flows
16 with parent Avangrid or its other subsidiaries.
- 17 ▪ The company does not have any cross-default obligations
18 and a default by parent Avangrid or its other subsidiaries
19 would not directly lead to a default at NYSEG.
- 20 ▪ The vote of an independent board of directors at a special-
21 purpose entity (SPE) that owns NYSEG's equity is required
22 to file NYSEG into voluntary bankruptcy.
- 23 ▪ A golden share's vote is required to file the SPE into
24 bankruptcy.
- 25 ▪ There is a strong economic basis for parent Avangrid to
26 maintain the financial strength of NYSEG because its
27 utility strategy is aligned with the overall strategy of its
28 parent.
- 29 ▪ Restrictions on dividend distributions, such as maintaining
30 equity to capital of 48%.
- 31 ▪ A nonconsolidation opinion.

32

33 **Q. What do you conclude regarding the credit rating agencies' view of the**
34 **stand-alone nature of NYSEG and RG&E?**

35 **A.** Rating agencies are very cognizant of the protective ring-fencing measures
36 that the Commission has established for NYSEG and RG&E and cite them
37 as the reason why they assess both Companies' credit quality on a stand-
38 alone basis. Because there is factual evidence indicating that the two major

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1 credit rating agencies view each of the Companies' credit quality on a stand-
2 alone basis, the stand-alone capital structures proposed in this proceeding
3 are appropriate for the purpose of establishing the ROR on rate base.
4

5 **Q. Have you conducted any analysis of the Companies' proposed capital**
6 **structure as compared with the proxy companies?**

7 A. Yes. I have reviewed NYSEG and RG&E's proposed capital structure as
8 compared with the actual capital structures of the operating companies in
9 the proxy group for period from 2017 through 2020. As shown on
10 Exhibit __ (AEB-11), the mean annual equity ratio of the proxy companies
11 over that period is 53.84 percent with a range of 45.79 percent to 61.97
12 percent.
13

14 **Q. Are there other factors to be considered in setting the Companies'**
15 **capital structure?**

16 A. Yes. We should examine the credit metrics that would result from the
17 adoption of the rate plan which would incorporate not only the capital
18 structure or the amount of debt financing but the cash flows available to
19 support the debt. Credit metrics for the utility sector have come under
20 pressure due to the Tax Cuts and Jobs Act of 2017 (TCJA). All three rating
21 agencies have noted that the TCJA has negative implications for utility cash
22 flows. S&P and Fitch specifically identified increasing the equity ratio as
23 one approach to ensure that utilities have sufficient cash flows following the

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1 federal income tax rate reductions and the loss of bonus depreciation. As
2 S&P noted “[r]egulators must also recognize that tax reform is a strain on
3 utility credit quality, and we expect companies to request stronger capital
4 structures and other means to offset some of the negative impact”..¹²⁵
5 Furthermore, Moody’s downgraded the rating outlook for the entire utilities
6 sector in June 2018 and has continued to downgrade the ratings of utilities
7 based in part on the negative effects of the TCJA on cash flows.

8
9 S&P continues to maintain a negative outlook for the utility industry in 2022
10 and noted that since downgrades outpaced upgrades for a second
11 consecutive year in 2021 for the first time ever the median investor-owned
12 utility credit rating fell to the “BBB” category..¹²⁶ Further, S&P expects
13 continued pressure on cash flows over the near-term as utilities continue to
14 increase leverage to fund capital expenditure plans necessary to reduce
15 greenhouse gas emission and improve safety and reliability. Finally, S&P
16 also highlighted inflation, higher interest rates and rising commodity prices
17 as additional risks that could further constrain the credit metrics for utilities
18 over the near-term. In regards to inflation S&P noted:

19 Inflation recently spiked to its highest level in decades after
20 rising for several consecutive months in 2021. Given the
21 sustained increase to the U.S. consumer price index in 2021,
22 inflation no longer appears to be just transitory and may have
23 financial implications for the investor-owned North American

¹²⁵ Standard & Poor’s Ratings, “U.S. Tax Reform: For Utilities’ Credit Quality, Challenges Abound”, January 24, 2018, at 5.

¹²⁶ S&P Global Ratings, “For The First Time Ever, The Median Investor-Owned Utility Ratings Falls To The ‘BBB’ Category.” January 20, 2022.

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regulated utility industry. Because of the regulatory lag within the industry, inflation, which causes prices to rise, typically leads to a weakening of financial performance. The regulatory lag is the timing difference between when costs are incurred and when regulators allow those costs to be fully recovered from ratepayers...¹²⁷

The credit ratings agencies continued concerns over the negative effects or the TCJA, inflation, and increased capital expenditures underscores the importance of maintaining adequate cash flow metrics for the industry, as a whole, and NYSEG and RG&E, particularly, in the context of this proceeding.

Q What are the current ratings for NYSEG and RG&E and have there been any recent updates?

A. Figure 15 below summarizes the current ratings and outlooks for the Companies.

Figure 15: NYSEG and RG&E Credit Ratings

S&P	NYSEG	RG&E
Outlook	Stable	Stable
Issuer Credit Rating	A-	A-
Senior Unsecured	A-	n/a
Secured (FMB)	n/a	A
Moody's	NYSEG	RG&E
Outlook	Stable	Stable
Long-Term Issuer Rating	Baa1	Baa1
Senior Unsecured	Baa1	n/a
Secured (FMB)	n/a	A2
Fitch	NYSEG	RG&E
Outlook	Stable	Stable
Long-term Issuer Default Rating	BBB+	BBB+
Senior Unsecured	A-	A-
Secured (FMB)	n/a	A

¹²⁷ *Ibid.*

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1 S&P and Fitch have made no recent changes to the ratings or outlook.
2 Moody's lowered the ratings on both companies by 1-notch to Baa1 in July
3 2021 citing Cash Flow from Operations Pre-Working Capital to Debt
4 ("CFO Pre-WC / Debt") ratios in the mid-teens, below the threshold
5 necessary to maintain the A3 rating that each previously had.

6
7 **Q. Do the Companies anticipate further changes to the ratings or**
8 **outlooks?**

9 A. As noted above, the key metric that Moody's focuses on is CFO Pre-WC /
10 Debt. In the most recent credit opinions Moody's indicates that a CFO Pre-
11 WC / Debt ratio below 14% for a sustained period could lead to a
12 downgrade.¹²⁸ In 2021, NYSEG and RG&E had CFO Pre-WC / Debt
13 ratios of 8.5% and 10.6%, respectively, each well below the threshold. This
14 puts both companies at risk of further downgrades.

15
16 The key ratio followed by S&P is Funds from Operations to Debt ("FFO /
17 Debt"). 2021 FFO / Debt was 15.7% for NYSEG and 15.5% for RG&E, at
18 the low end of the 15% to 22% range of acceptable results for their current
19 ratings.

20
21 The key measure cited by Fitch is Funds from Operations Leverage "FFO
22 Leverage") which is defined as Debt divided by FFO plus gross interest and

¹²⁸ Moody's Investor Services, New York State Electric and Gas Corporation/ Rochester Gas & Electric Corporation, October 10, 2021 at 5.

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rent expense. Fitch indicates that FFO Leverage that is expected to exceed 4.8x on a sustained basis could lead to a negative rating action of downgrade.¹²⁹ In 2021 NYSEG's FFO Leverage was 4.8x which is right at the threshold. RG&E had a FFO Leverage ratio of 5.7x, which is worse than the threshold and put it at risk for a ratings downgrade if sustained.

We believe all three rating agencies will refrain from taking any rating actions in 2022 but will be closely watching the outcome of this proceeding to see whether the result will strengthen the key credit metrics.

Q. Have you forecasted how the credit metrics would evolve under the Companies' rate proposals?

A. Yes, as shown in Figure 16 below, if adopted as filed, it is estimated that the Companies would generate the following key credit metrics results during the rate year.

Figure 16: NYSEG and RG&E Credit Ratings

	NYSEG	RG&E	Threshold
Moody's (CFO /Debt)	17.6%	14.6%	Downgrade <14% Upgrade >19%
S&P (FFO / Debt)	16.3%	16.4%	Downgrade <15% Upgrade >22%
Fitch (FFO Leverage)	6.1x	4.9x	Downgrade >4.8x Upgrade <3.8%

¹²⁹ Fitch Credit reports on NYSEG and RG&E dated November 10, 2021, page 2

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1 **Q. Have you evaluated the sensitivity of the key credit metrics to changes**
2 **in the ROE or capital structure in the filing?**

3 A. Yes. Figure 17 below summarizes the changes in credit metrics that would
4 result from a change in the ROE of +/- 50 basis points and a change in the
5 equity ratio of +/- 1 percent.

6 **Figure 17: Credit Metrics Sensitivities**
7

	ROE +/- 50 bps	Equity ratio +/- 1%
Moody's (CFO /Debt)	+/- 0.35%	+/- 0.45%
S&P (FFO / Debt)	+/- 0.47%	+/- 0.47%
Fitch (FFO Leverage)	+/- 0.1x	+/- 0.2x

8

9 **Q. Are there other factors to which the credit metrics would be sensitive?**

10 A. Yes, changes in the rates of plant depreciation or regulatory asset / liability
11 amortization would impact CFO and FFO. A significant increase in CWIP
12 would increase debt without an immediate corresponding increase in cash
13 flows.

14 **Q. Does the use of a 50 percent equity ratio have any implications for your**
15 **recommendation concerning the Companies' ROE?**

16 A. The average equity ratio of the proxy companies is higher than 50.00
17 percent, which means that, all else equal, the proxy companies have lower
18 financial risk than is implied by the 50.00 percent equity ratio proposed by
19 the Companies. Given this risk differential and the significance of the
20 overall ROE/capital structure determination to the Companies' continuing

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1 ability to access capital, the Companies' requested return of 10.20 percent
2 is conservative as the use of a lower equity ratio than the proxy companies
3 would support an ROE at the high end of the range of results presented in
4 Figure 15 below.

5
6 **Q. Will the capital structure and ROE authorized in these proceedings**
7 **affect the Companies' access to capital at reasonable rates?**

8 A. Yes. The level of earnings authorized by the Commission directly affects
9 the Companies' ability to fund their operations with internally generated
10 funds. Both bond investors and rating agencies expect a significant portion
11 of ongoing capital investments to be financed with internally generated
12 funds.

13
14 It also is important to realize that because a utility's investment horizon is
15 very long, investors require the assurance of a sufficiently high return to
16 satisfy the long-run financing requirements of the assets placed into service.
17 Those assurances, which often are measured by the relationship between
18 internally generated cash flows and debt (or interest expense), depend quite
19 heavily on the capital structure. As a consequence, both the ROE and
20 capital structure are very important to debt and equity investors.
21 Furthermore, considering the capital market conditions discussed in Section
22 IV, the authorized ROE and capital structure take on even greater
23 significance.

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1 **Q. What do you conclude from your analysis of the capital structures of**
2 **the proxy group and the credit metrics reviewed?**

3 A. The requested 50 percent equity ratio is conservative considering the equity
4 ratios of the proxy companies and the current business and financial risks
5 of NYSEG and RG&E, including significant capital investment programs,
6 credit metrics pressures and credit rating agency pressures. This
7 information indicates that the utility operating subsidiaries owned by
8 holding companies with similar business characteristics to NYSEG and
9 RG&E have for the last four years maintained average common equity
10 ratios of approximately 6 percentage points above the 48.0 percent equity
11 ratio that the Commission approved for NYSEG and RG&E in the
12 Companies' last rate proceeding. These higher proxy equity ratios reflect a
13 level of financial risk that is lower than the financial risk implied by the
14 proposed 50 percent equity ratio.

15
16 Therefore, I conclude that the requested equity ratio should be considered a
17 lower bound on the equity ratio that would support the Companies' financial
18 integrity. As such, it would be reasonable for the Commission to use higher
19 equity ratios for NYSEG and RG&E closer to those of the proxy group
20 operating companies for ratemaking purposes.

21

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IX. MULTI-YEAR RATE PLAN

1

2 **Q. Would a multi-year rate plan impact your ROE recommendation?**

3 A. Yes, it would. The Commission has in many cases approved three-year rate
4 case settlements that often include stay-out premiums. It is my
5 understanding that the Companies will provide three-years of forecast data
6 in their rate filings. In keeping with Commission precedent, a stay-out
7 premium would reflect the increased risk faced by the Companies under a
8 multi-year rate plan.

9

10 **Q. How has New York typically estimated a stay-out premium?**

11 A. The New York approach has typically set the measure of the risk and return
12 trade-off using one half of the yield spread between a one-year and three-
13 year Treasury securities.

14

15 **Q. Does one half of the yield spread between one-year and three-year**
16 **Treasuries sufficiently reflect the risk to equity investors inherent in a**
17 **multi-year stay-out?**

18 A. No. Any stay-out premium associated with a multi-year rate plan should
19 not only compensate investors for changes in the level of interest rates or
20 inflation, but also for the potential risk of under-earning that is introduced
21 by “staying out.” By staying out of rate cases, the utility may not fully
22 recover material amounts of capital expenditures and may be required to
23 absorb losses due to differences between the cost of service established in

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1 the rate plan and actual levels of revenue and expense. The premium should
2 compensate the utility and its investors for these additional risks over and
3 above interest rate risk.

4
5 **Q. Have current market conditions increased the risk of a multi-year stay-**
6 **out for the Companies?**

7 A. Yes. As noted earlier in my testimony, the Federal Reserve is currently
8 normalizing monetary policy in response to increased persistent inflation
9 which will result in increases in long-term interest rates over the near-term.
10 Investors will rotate out of long-term government bonds to avoid being
11 locked into low interest rates for the long-term. As a result, in the current
12 market environment, there is additional risk that the authorized ROE for the
13 latter years of a multi-year rate plan will be lower than investors' future
14 requirements as interest rates are expected to increase.

15
16 **Q. What do you propose as the stay-out premium for a three-year rate**
17 **plan?**

18 A. The ROE proposed by the Companies of 10.20 percent will not provide the
19 Companies a return commensurate with the return available on investments
20 of similar risk over the term of the multi-year rate plan without an adequate
21 stay-out premium. Consistent with prior cases in which a stay-out premium
22 was included in multi-year rate plans, I recommend that a stay-out premium
23 be included in a multi-year rate plan.

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1

2

X. CONCLUSION AND RECOMMENDATION

3

Q. What is your conclusion regarding a fair return on book equity for NYSEG and RG&E?

4

5

A. My recommended return on equity considers the results of the DCF and CAPM models, summarized in Figure 18 (below), and the specific risks to which the Companies are exposed. I conclude that the appropriate ROE for the Companies is within the range of 9.75 percent and 11.25 percent. The Companies are requesting a ROE of 10.20 percent, which is at the low end of that range and is a conservative estimate of the investor-required ROE. Furthermore, if the Commission approves a multi-year rate plan, it will be necessary to provide an adjustment to the ROE to adequately compensate for the incremental risk of the stay-out period.

6

7

8

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Figure 18: Summary of Analytical Results.¹³⁰

	Low	Mean	High
Multi-Stage DCF	8.97%	9.22%	9.47%
Traditional CAPM	10.55%	10.72%	10.78%
Zero-Beta CAPM	11.08%	11.21%	11.26%
Mean CAPM	10.81%	10.97%	11.02%
50%/50% DCF/CAPM	9.89%	10.09%	10.24%
67%/33% DCF/CAPM	9.58%	9.80%	9.98%

Q. What is your conclusion regarding the Companies' proposed common equity ratio?

A. The Companies' common equity ratio of 50.00 percent for ratemaking purposes is consistent with the Commission's equity ratio policy for electric and natural gas distribution companies, but is below the mean equity ratio for the operating companies held by the proxy group, and suggests a higher level of financial risk relative to the proxy companies.

Q. Does this conclude your direct testimony?

A. Yes, it does.

¹³⁰ The DCF results presented in Figure 15 reflect the results of the models using low, average and high growth rate assumptions. The range of results for the CAPM is based on three interest rate scenarios, a historical average, a five-quarter projection and a long-term projection.

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With more than 25 years of experience in the energy industry, Ms. Bulkley specializes in regulatory economics for the electric and natural gas sectors, including rate of return, cost of equity, and capital structure issues.

Ms. Bulkley has extensive state and federal regulatory experience, and she has provided expert testimony on the cost of capital in nearly 100 regulatory proceedings before 32 state regulatory commissions and the Federal Energy Regulatory Commission (FERC).

In addition to her regulatory experience, Ms. Bulkley has provided valuation and appraisal services for a variety of purposes, including the sale or acquisition of utility assets, regulated ratemaking, ad valorem tax disputes, and other litigation purposes. In addition, she has experience in the areas of contract and business unit valuation, strategic alliances, market restructuring, and regulatory and litigation support.

Ms. Bulkley is a Certified General Appraiser licensed in the Commonwealth of Massachusetts and the State of New Hampshire.

Prior to joining Brattle, Ms. Bulkley was a Senior Vice President at an economic consultancy and held senior positions at several other consulting firms.

AREAS OF EXPERTISE

- Regulatory Economics, Finance & Rates
- Regulatory Investigations & Enforcement
- Tax Controversy & Transfer Pricing
- Electricity Litigation & Regulatory Disputes
- M&A Litigation

EDUCATION

- **Boston University**
MA in Economics
- **Simmons College**
BA in Economics and Finance

PROFESSIONAL EXPERIENCE

- **The Brattle Group (2022–Present)**
Principal
- **Concentric Energy Advisors, Inc. (2002–2021)**
Senior Vice President
Vice President
Assistant Vice President
Project Manager
- **Navigant Consulting, Inc. (1997–2002)**
Project Manager
- **Reed Consulting Group (1995–1997)**
Consultant- Project Manager
- **Cahners Publishing Company (1995)**
Economist

SELECTED CONSULTING EXPERIENCE & EXPERT TESTIMONY**REGULATORY ANALYSIS AND RATEMAKING**

Have provided a range of advisory services relating to regulatory policy analysis and many aspects of utility ratemaking, with specific services including:

- Cost of capital and return on equity testimony, cost of service and rate design analysis and testimony, development of ratemaking strategies
- Development of merchant function exit strategies

- Analysis and program development to address residual energy supply and/or provider of last resort obligations
- Stranded costs assessment and recovery
Performance-based ratemaking analysis and design
- Many aspects of traditional utility ratemaking (e.g., rate design, rate base valuation)

COST OF CAPITAL

Have provided expert testimony on the cost of capital and capital structure in nearly 100 regulatory proceedings before state and federal regulatory commissions in the United States.

RATEMAKING

Have assisted several clients with analysis to support investor-owned and municipal utility clients in the preparation of rate cases. Sample engagements include:

- Assisted several investor-owned and municipal clients on cost allocation and rate design issues including the development of expert testimony supporting recommended rate alternatives.
- Worked with Canadian regulatory staff to establish filing requirements for a rate review of a newly regulated electric utility. Along with analyzing and evaluating rate application, attended hearings and conducted investigation of rate application for regulatory staff. And prepared, supported, and defended recommendations for revenue requirements and rates for the company. Additionally, developed rates for gas utility for transportation program and ancillary services.

VALUATION

Have provided valuation services to utility clients, unregulated generators, and private equity clients for a variety of purposes, including ratemaking, fair value, ad valorem tax, litigation and damages, and acquisition. Appraisal practices are consistent with the national standards established by the Uniform Standards of Professional Appraisal Practice.

Representative projects/clients have included:

- Prepared appraisals of electric utility transmission and distribution assets for ad valorem tax purposes.
- Prepared appraisals of several hydroelectric generating facilities for ad valorem tax purposes.
- Conducted appraisals of fossil fuel generating facilities for ad valorem tax purposes.
- Conducted appraisals of generating assets for the purposes of unwinding sale-leaseback agreements.
- For a confidential utility client, prepared valuation of fossil and nuclear generation assets for financing purposes for regulated utility client.

- Prepared a valuation of a portfolio of generation assets for a large energy utility to be used for strategic planning purposes. Valuation approach included an income approach, a real options analysis, and a risk analysis.
- Assisted clients in the restructuring of NUG contracts through the valuation of the underlying assets. Performed analysis to determine the option value of a plant in a competitively priced electricity market following the settlement of the NUG contract.
- Prepared market valuations of several purchase power contracts for large electric utilities in the sale of purchase power contracts. Assignment included an assessment of the regional power market, analysis of the underlying purchase power contracts, and a traditional discounted cash flow valuation approach, as well as a risk analysis. Analyzed bids from potential acquirers using income and risk analysis approaches. Prepared an assessment of the credit issues and value at risk for the selling utility.
- Prepared appraisal of a portfolio of generating facilities for a large electric utility to be used for financing purposes.
- Prepared fair value rate base analyses for Northern Indiana Public Service Company for several electric rate proceedings. Valuation approaches used in this project included income, cost, and comparable sales approaches.
- Prepared an appraisal of a fleet of fossil generating assets for a large electric utility to establish the value of assets transferred from utility property.
- Conducted due diligence on an electric transmission and distribution system as part of a buy-side due diligence team.
- Provided analytical support for and prepared appraisal reports of generation assets to be used in ad valorem tax disputes.
- Provided analytical support and prepared testimony regarding the valuation of electric distribution system assets in five communities in a condemnation proceeding.
- Prepared feasibility reports analyzing the expected net benefits resulting from municipal ownership of investor-owned utility operations.
- Prepared independent analyses of proposal for the proposed government condemnation of the investor-owned utilities in Maine and the formation of a public power district.
- Valued purchase power agreements in the transfer of assets to a deregulated electric market.

STRATEGIC AND FINANCIAL ADVISORY SERVICES

Have assisted several clients across North America with analytically-based strategic planning, due diligence, and financial advisory services.

Representative projects include:

- Preparation of feasibility studies for bond issuances for municipal and district steam clients.
- Assisted in the development of a generation strategy for an electric utility. Analyzed various NERC regions to identify potential market entry points. Evaluated potential competitors and alliance partners. Assisted in the development of gas and electric price forecasts. Developed a framework for the implementation of a risk management program.
- Assisted clients in identifying potential joint venture opportunities and alliance partners. Contacted interviewed and evaluated potential alliance candidates based on company-established criteria for several LDCs and marketing companies. Worked with several LDCs and unregulated marketing companies to establish alliances to enter into the retail energy market. Prepared testimony in support of several merger cases and participated in the regulatory process to obtain approval for these mergers.
- Assisted clients in several buy-side due diligence efforts, providing regulatory insight and developing valuation recommendations for acquisitions of both electric and gas properties.

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Arizona Corporation Commission				
Southwest Gas Corporation	12/21	Southwest Gas Corporation	Docket No. G-01551A-21-0368	Return on Equity
Arizona Public Service Company	10/19	Arizona Public Service Company	Docket No. E-01345A-19-0236	Return on Equity
Tucson Electric Power Company	04/19	Tucson Electric Power Company	Docket No. E-01933A-19-0028	Return on Equity
Tucson Electric Power Company	11/15	Tucson Electric Power Company	Docket No. E-01933A-15-0322	Return on Equity
UNS Electric	05/15	UNS Electric	Docket No. E-04204A-15-0142	Return on Equity
UNS Electric	12/12	UNS Electric	Docket No. E-04204A-12-0504	Return on Equity
Arkansas Public Service Commission				
Oklahoma Gas and Electric Co	10/21	Oklahoma Gas and Electric Co	Docket No. D-18-046-FR	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Arkansas Oklahoma Gas Corporation	10/13	Arkansas Oklahoma Gas Corporation	Docket No. 13-078-U	Return on Equity
California Public Utilities Commission				
San Jose Water Company	05/21	San Jose Water Company	A2105004	Return on Equity
Colorado Public Utilities Commission				
Public Service Company of Colorado	07/21	Public Service Company of Colorado	21AL-0317E	Return on Equity
Public Service Company of Colorado	02/20	Public Service Company of Colorado	20AL-0049G	Return on Equity
Public Service Company of Colorado	05/19	Public Service Company of Colorado	19AL-0268E	Return on Equity
Public Service Company of Colorado	01/19	Public Service Company of Colorado	19AL-0063ST	Return on Equity
Atmos Energy Corporation	05/15	Atmos Energy Corporation	Docket No. 15AL-0299G	Return on Equity
Atmos Energy Corporation	04/14	Atmos Energy Corporation	Docket No. 14AL-0300G	Return on Equity
Atmos Energy Corporation	05/13	Atmos Energy Corporation	Docket No. 13AL-0496G	Return on Equity
Connecticut Public Utilities Regulatory Authority				
United Illuminating	05/21	United Illuminating	Docket No. 17-12-03RE11	Return on Equity
Connecticut Water Company	01/21	Connecticut Water Company	Docket No. 20-12-30	Return on Equity
Connecticut Natural Gas Corporation	06/18	Connecticut Natural Gas Corporation	Docket No. 18-05-16	Return on Equity
Yankee Gas Services Co. d/b/a Eversource Energy	06/18	Yankee Gas Services Co. d/b/a Eversource Energy	Docket No. 18-05-10	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
The Southern Connecticut Gas Company	06/17	The Southern Connecticut Gas Company	Docket No. 17-05-42	Return on Equity
The United Illuminating Company	07/16	The United Illuminating Company	Docket No. 16-06-04	Return on Equity
Federal Energy Regulatory Commission				
Florida Gas Transmission	02/21	Florida Gas Transmission	Docket No. RP21-441	Return on Equity
TransCanyon	01/21	TransCanyon	Docket No. ER21-1065	Return on Equity
Duke Energy	12/20	Duke Energy	Docket No. EL21-9-000	Return on Equity
Wisconsin Electric Power Company	08/20	Wisconsin Electric Power Company	Docket No. EL20-57-000	Return on Equity
Panhandle Eastern Pipe Line Company, LP	10/19	Panhandle Eastern Pipe Line Company, LP	Docket Nos. RP19-78-000 RP19-78-001	Return on Equity
Panhandle Eastern Pipe Line Company, LP	08/19	Panhandle Eastern Pipe Line Company, LP	Docket Nos. RP19-1523	Return on Equity
Sea Robin Pipeline Company LLC	11/18	Sea Robin Pipeline Company LLC	Docket# RP19-352-000	Return on Equity
Tallgrass Interstate Gas Transmission	10/15	Tallgrass Interstate Gas Transmission	RP16-137	Return on Equity
Idaho Public Utilities Commission				
PacifiCorp d/b/a Rocky Mountain Power	05/21	PacifiCorp d/b/a Rocky Mountain Power	Case No. PAC-E-21-07	Return on Equity
Illinois Commerce Commission				
North Shore Gas Company	02/21	North Shore Gas Company	No. 20-0810	Return on Equity
Indiana Utility Regulatory Commission				

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Indiana Michigan Power Co.	07/21	Indiana Michigan Power Co.	IURC Cause No. 45576	Return on Equity
Indiana Gas Company Inc.	12/20	Indiana Gas Company Inc.	IURC Cause No. 45468	Return on Equity
Southern Indiana Gas and Electric Company	10/20	Southern Indiana Gas and Electric Company	IURC Cause No. 45447	Return on Equity
Indiana and Michigan American Water Company	09/18	Indiana and Michigan American Water Company	IURC Cause No. 45142	Return on Equity
Indianapolis Power and Light Company	12/17	Indianapolis Power and Light Company	Cause No. 45029	Fair Value
Northern Indiana Public Service Company	09/17	Northern Indiana Public Service Company	Cause No. 44988	Fair Value
Indianapolis Power and Light Company	12/16	Indianapolis Power and Light Company	Cause No.44893	Fair Value
Northern Indiana Public Service Company	10/15	Northern Indiana Public Service Company	Cause No. 44688	Fair Value
Indianapolis Power and Light Company	09/15	Indianapolis Power and Light Company	Cause No. 44576 Cause No. 44602	Fair Value
Kokomo Gas and Fuel Company	09/10	Kokomo Gas and Fuel Company	Cause No. 43942	Fair Value
Northern Indiana Fuel and Light Company, Inc.	09/10	Northern Indiana Fuel and Light Company, Inc.	Cause No. 43943	Fair Value
Iowa Department of Commerce Utilities Board				
Iowa-American Water Company	08/20	Iowa-American Water Company	Docket No. RPU-2020-0001	Return on Equity
Kansas Corporation Commission				

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Atmos Energy Corporation	08/15	Atmos Energy Corporation	Docket No. 16-ATMG-079-RTS	Return on Equity
Kentucky Public Service Commission				
Kentucky American Water Company	11/18	Kentucky American Water Company	Docket No. 2018-00358	Return on Equity
Maine Public Utilities Commission				
Central Maine Power	10/18	Central Maine Power	Docket No. 2018-194	Return on Equity
Maryland Public Service Commission				
Maryland American Water Company	06/18	Maryland American Water Company	Case No. 9487	Return on Equity
Massachusetts Appellate Tax Board				
Hopkinton LNG Corporation	03/20	Hopkinton LNG Corporation	Docket No.	Valuation of LNG Facility
FirstLight Hydro Generating Company	06/17	FirstLight Hydro Generating Company	Docket No. F-325471 Docket No. F-325472 Docket No. F-325473 Docket No. F-325474	Valuation of Electric Generation Assets
Massachusetts Department of Public Utilities				
National Grid USA	11/20	Boston Gas Company	DPU 20-120	Return on Equity
Berkshire Gas Company	05/18	Berkshire Gas Company	DPU 18-40	Return on Equity
Unitil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast
Michigan Public Service Commission				
Michigan Gas Utilities Corporation	03/21	Michigan Gas Utilities Corporation	Case No. U-20718	Return on Equity
Wisconsin Electric Power Company	12/11	Wisconsin Electric Power Company	Case No. U-16830	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Michigan Tax Tribunal				
New Covert Generating Co., LLC.	03/18	The Township of New Covert Michigan	MTT Docket No. 000248TT and 16-001888-TT	Valuation of Electric Generation Assets
Covert Township	07/14	New Covert Generating Co., LLC.	Docket No. 399578	Valuation of Electric Generation Assets
Minnesota Public Utilities Commission				
CenterPoint Energy Resources	11/21	CenterPoint Energy Resources	D-G-008/GR-21-435	Return on Equity
Allete, Inc. d/b/a Minnesota Power	11/21	Allete, Inc. d/b/a Minnesota Power	D-E-015/GR-21-630	Return on Equity
Otter Tail Power Company	11/20	Otter Tail Power Company	E017/GR-20-719	Return on Equity
Allete, Inc. d/b/a Minnesota Power	11/19	Allete, Inc. d/b/a Minnesota Power	E015/GR-19-442	Return on Equity
CenterPoint Energy Resources Corporation d/b/a CenterPoint Energy Minnesota Gas	10/19	CenterPoint Energy Resources Corporation d/b/a CenterPoint Energy Minnesota Gas	G-008/GR-19-524	Return on Equity
Great Plains Natural Gas Co.	09/19	Great Plains Natural Gas Co.	Docket No. G004/GR-19-511	Return on Equity
Minnesota Energy Resources Corporation	10/17	Minnesota Energy Resources Corporation	Docket No. G011/GR-17-563	Return on Equity
Missouri Public Service Commission				
Evergy Missouri West	1/22	Evergy Missouri West	File No. ER-2022-0130	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Evergy Missouri Metro	1/22	Evergy Missouri Metro	File No. ER-2022-0129	Return on Equity
Ameren Missouri	03/21	Ameren Missouri	Docket No. ER-2021-0240 Docket No. GR-2021-0241	Return on Equity
Missouri American Water Company	06/20	Missouri American Water Company	Case No. WR-2020-0344 Case No. SR-2020-0345	Return on Equity
Missouri American Water Company	06/17	Missouri American Water Company	Case No. WR-17-0285 Case No. SR-17-0286	Return on Equity
Montana Public Service Commission				
Montana-Dakota Utilities Co.	06/20	Montana-Dakota Utilities Co.	D2020.06.076	Return on Equity
Montana-Dakota Utilities Co.	09/18	Montana-Dakota Utilities Co.	D2018.9.60	Return on Equity
New Hampshire - Board of Tax and Land Appeals				
Public Service Company of New Hampshire d/b/a Eversource Energy	11/19 12/19	Public Service Company of New Hampshire d/b/a Eversource Energy	Master Docket No. 28873-14-15-16-17PT	Valuation of Utility Property and Generating Assets
New Hampshire Public Utilities Commission				
Public Service Company of New Hampshire	05/19	Public Service Company of New Hampshire	DE-19-057	Return on Equity
New Hampshire-Merrimack County Superior Court				

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
Northern New England Telephone Operations, LLC d/b/a FairPoint Communications, NNE	04/18	Northern New England Telephone Operations, LLC d/b/a FairPoint Communications, NNE	220-2012-CV-1100	Valuation of Utility Property
New Hampshire-Rockingham Superior Court				
Eversource Energy	05/18	Public Service Commission of New Hampshire	218-2016-CV-00899 218-2017-CV-00917	Valuation of Utility Property
New Jersey Board of Public Utilities				
Public Service Electric and Gas Company	10/20	Public Service Electric and Gas Company	EO18101115	Return on Equity
New Jersey American Water Company, Inc.	12/19	New Jersey American Water Company, Inc.	WR19121516	Return on Equity
Public Service Electric and Gas Company	04/19	Public Service Electric and Gas Company	EO18060629 GO18060630	Return on Equity
Public Service Electric and Gas Company	02/18	Public Service Electric and Gas Company	GR17070776	Return on Equity
Public Service Electric and Gas Company	01/18	Public Service Electric and Gas Company	ER18010029 GR18010030	Return on Equity
New Mexico Public Regulation Commission				
Southwestern Public Service Company	07/19	Southwestern Public Service Company	19-00170-UT	Return on Equity
Southwestern Public Service Company	10/17	Southwestern Public Service Company	Case No. 17-00255-UT	Return on Equity
Southwestern Public Service Company	12/16	Southwestern Public Service Company	Case No. 16-00269-UT	Return on Equity
Southwestern Public Service Company	10/15	Southwestern Public Service Company	Case No. 15-00296-UT	Return on Equity
Southwestern Public Service Company	06/15	Southwestern Public Service Company	Case No. 15-00139-UT	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
New York State Department of Public Service				
Corning Natural Gas Corporation	07/21	Corning Natural Gas Corporation	Case No. 21-G-0394	Return on Equity
Central Hudson Gas and Electric Corporation	08/20	Central Hudson Gas and Electric Corporation	Electric 20-E-0428 Gas 20-G-0429	Return on Equity
Niagara Mohawk Power Corporation	07/20	National Grid USA	Case No. 20-E-0380 20-G-0381	Return on Equity
Corning Natural Gas Corporation	02/20	Corning Natural Gas Corporation	Case No. 20-G-0101	Return on Equity
New York State Electric and Gas Company Rochester Gas and Electric	05/19	New York State Electric and Gas Company Rochester Gas and Electric	19-E-0378 19-G-0379 19-E-0380 19-G-0381	Return on Equity
Brooklyn Union Gas Company d/b/a National Grid NY KeySpan Gas East Corporation d/b/a National Grid	04/19	Brooklyn Union Gas Company d/b/a National Grid NY KeySpan Gas East Corporation d/b/a National Grid	19-G-0309 19-G-0310	Return on Equity
Central Hudson Gas and Electric Corporation	07/17	Central Hudson Gas and Electric Corporation	Electric 17-E-0459 Gas 17-G-0460	Return on Equity
Niagara Mohawk Power Corporation	04/17	National Grid USA	Case No. 17-E-0238 17-G-0239	Return on Equity
Corning Natural Gas Corporation	06/16	Corning Natural Gas Corporation	Case No. 16-G-0369	Return on Equity
National Fuel Gas Company	04/16	National Fuel Gas Company	Case No. 16-G-0257	Return on Equity
KeySpan Energy Delivery	01/16	KeySpan Energy Delivery	Case No. 15-G-0058 Case No. 15-G-0059	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
New York State Electric and Gas Company Rochester Gas and Electric	05/15	New York State Electric and Gas Company Rochester Gas and Electric	Case No. 15-E-0283 Case No. 15-G-0284 Case No. 15-E-0285 Case No. 15-G-0286	Return on Equity
North Dakota Public Service Commission				
Montana-Dakota Utilities Co.	08/20	Montana-Dakota Utilities Co.	C-PU-20-379	Return on Equity
Northern States Power Company	12/12	Northern States Power Company	C-PU-12-813	Return on Equity
Northern States Power Company	12/10	Northern States Power Company	C-PU-10-657	Return on Equity
Oklahoma Corporation Commission				
Arkansas Oklahoma Gas Corporation	01/13	Arkansas Oklahoma Gas Corporation	Cause No. PUD 201200236	Return on Equity
Oregon Public Service Commission				
PacifiCorp d/b/a Pacific Power & Light	02/22	PacifiCorp d/b/a Pacific Power & Light	Docket No. UE-399	Return on Equity
PacifiCorp d/b/a Pacific Power & Light	02/20	PacifiCorp d/b/a Pacific Power & Light	Docket No. UE-374	Return on Equity
Pennsylvania Public Utility Commission				
American Water Works Company Inc.	04/22	Pennsylvania-American Water Company	Docket No. R-2020-3031672 (water) Docket No. R-2020-3031673 (wastewater)	Return on Equity
American Water Works Company Inc.	04/20	Pennsylvania-American Water Company	Docket No. R-2020-3019369 (water) Docket No. R-2020-3019371 (wastewater)	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
American Water Works Company Inc.	04/17	Pennsylvania-American Water Company	Docket No. R-2017-2595853	Return on Equity
South Dakota Public Utilities Commission				
Northern States Power Company	06/14	Northern States Power Company	Docket No. EL14-058	Return on Equity
Texas Public Utility Commission				
Southwestern Public Service Commission	08/19	Southwestern Public Service Commission	Docket No. D-49831	Return on Equity
Southwestern Public Service Company	01/14	Southwestern Public Service Company	Docket No. 42004	Return on Equity
Utah Public Service Commission				
PacifiCorp d/b/a Rocky Mountain Power	05/20	PacifiCorp d/b/a Rocky Mountain Power	Docket No. 20-035-04	Return on Equity
Virginia State Corporation Commission				
Virginia American Water Company, Inc.	11/21	Virginia American Water Company, Inc.	Docket No. PUR-2021-00255	Return on Equity
Virginia American Water Company, Inc.	11/18	Virginia American Water Company, Inc.	Docket No. PUR-2018-00175	Return on Equity
Washington Utilities Transportation Commission				
Cascade Natural Gas Corporation	06/20	Cascade Natural Gas Corporation	Docket No. UG-200568	Return on Equity
PacifiCorp d/b/a Pacific Power & Light	12/19	PacifiCorp d/b/a Pacific Power & Light	Docket No. UE-191024	Return on Equity
Cascade Natural Gas Corporation	04/19	Cascade Natural Gas Corporation	Docket No. UG-190210	Return on Equity
West Virginia Public Service Commission				
West Virginia American Water Company	04/21	West Virginia American Water Company	Case No. 21-02369-W-42T	Return on Equity

SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
West Virginia American Water Company	04/18	West Virginia American Water Company	Case No. 18-0573-W-42T Case No. 18-0576-S-42T	Return on Equity
Wisconsin Public Service Commission				
Alliant Energy		Alliant Energy		Return on Equity
Wisconsin Electric Power Company and Wisconsin Gas LLC	03/19	Wisconsin Electric Power Company and Wisconsin Gas LLC	Docket No. 05-UR-109	Return on Equity
Wisconsin Public Service Corp.	03/19	Wisconsin Public Service Corp.	6690-UR-126	Return on Equity
Wyoming Public Service Commission				
PacifiCorp d/b/a Rocky Mountain Power	03/20	PacifiCorp d/b/a Rocky Mountain Power	Docket No. 20000-578-ER-20	Return on Equity
Montana-Dakota Utilities Co.	05/19	Montana-Dakota Utilities Co.	30013-351-GR-19	Return on Equity

CERTIFICATIONS/ACCREDITATIONS

Certified General Appraiser, licensed in the Commonwealth of Massachusetts and the State of New Hampshire

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

- CASE 22-E-0317 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Electric Service.
- CASE 22-G-0318 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation for Gas Service.
- CASE 22-E-0319 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Rochester Gas and Electric Corporation for Electric Service.
- CASE 22-G-0320 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Rochester Gas and Electric Corporation for Gas Service.

ORDER ADOPTING JOINT PROPOSAL

Issued and Effective: October 12, 2023

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on October 12, 2023

COMMISSIONERS PRESENT:

Rory M. Christian, Chair
Diane X. Burman
James S. Alesi
Tracey A. Edwards
John B. Howard
David J. Valesky
John B. Maggiore

CASE 22-E-0317 - Proceeding on Motion of the Commission as to
the Rates, Charges, Rules and Regulations of New
York State Electric & Gas Corporation for
Electric Service.

CASE 22-G-0318 - Proceeding on Motion of the Commission as to
the Rates, Charges, Rules and Regulations of New
York State Electric & Gas Corporation for Gas
Service.

CASE 22-E-0319 - Proceeding on Motion of the Commission as to
the Rates, Charges, Rules and Regulations of
Rochester Gas and Electric Corporation for
Electric Service.

CASE 22-G-0320 - Proceeding on Motion of the Commission as to
the Rates, Charges, Rules and Regulations of
Rochester Gas and Electric Corporation for Gas
Service.

ORDER ADOPTING JOINT PROPOSAL

(Issued and Effective October 12, 2023)

BY THE COMMISSION:

I. INTRODUCTION

This Order adopts the terms of the attached Joint Proposal (JP), filed on June 14, 2023, establishing three-year electric and gas rate plans for New York State Electric & Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E) (together the Companies) during the period commencing May 1, 2023, through April 30, 2026 (Rate Plans). The signatories to the JP are: the Companies, trial staff of the Department of Public Service (DPS Staff or Staff); Convergent Energy and Power, LP (with respect to the electric services provisions); International Brotherhood of Electrical Workers, Local Union 10 (IBEW); Multiple Intervenors (MI) (with respect to electric and gas revenue allocations and large non-residential rate designs, and appendix M); New York Power Authority (NYPA) (with respect to electric service provisions); Nucor Steel Auburn, Inc.; Utility Intervention Unit, Division of Consumer Protection, New York State Department of State (UIU) (with respect to electric and gas revenue allocations); and Walmart, Inc. The JP is opposed by Alliance for a Green Economy (AGREE), Fossil Free Tompkins (FFT), and Ratepayer and Community Intervenors (RCI) (collectively the Climate and Consumer Parties);¹ Public Utility Law Project (PULP); AARP New York; and in part by MI (with respect to various elements of the proposal related to the Companies' revenue requirements).²

¹ See RCI's Post-Hearing Brief, p. 4.

² Climate Solutions Accelerator (CSA) and Campaign for Renewable Energy (CRE) signed the Statement in Opposition to the Joint Proposal (Statement in Opposition) collectively submitted by AGREE, FFT, and RCI, but otherwise did not oppose the JP at the evidentiary hearing or in post-hearing briefing.

For the reasons stated below, we approve and adopt the terms of the JP and supporting schedules as in the public interest. The terms of the JP ensure the Companies' continued provision of safe and reliable service at just and reasonable rates while preserving their operational and financial stability; fall within the range of potential litigated outcomes or otherwise provide benefits to ratepayers that could not have been achieved in a fully litigated proceeding; and are consistent with the environmental, social, and economic policies of the Commission and the State, including the Climate Leadership and Community Protection Act (CLCPA).

II. BACKGROUND

NYSEG and RG&E, wholly owned subsidiaries of AVANGRID, are headquartered in Rochester, New York. NYSEG serves approximately 907,336 electricity customers and 270,204 gas customers in a service territory covering more than 40% of upstate New York. RG&E serves approximately 385,925 electricity customers and 319,737 natural gas customers in a nine-county region surrounding the City of Rochester.

The Commission last set electric and gas delivery rates for NYSEG and RG&E in November 2020.³ In that order, the Commission established three-year electric and gas rate plans for both Companies through April 30, 2023. Most provisions included in those rate plans remain in effect until the Commission establishes new rate plans.

³ Cases 19-E-0378 et al., NYSEG and RG&E - Rates, Order Approving Electric and Gas Rate Plans in Accord with Joint Proposal, with Modifications (issued November 19, 2020) (2020 Rate Plan).

On May 26, 2022, the Companies initiated these proceedings by filing tariff amendments pursuant to Public Service Law (PSL) §66(12), proposing increases in electric and gas delivery rates and charges to become effective no later than May 1, 2023. Under its proposed tariffs, NYSEG sought an increase of approximately \$274 million to its existing annual electric delivery revenues, reflecting approximately a 31.2% increase in electric delivery revenues, and an increase of approximately \$43 million to its existing annual gas delivery revenues, reflecting approximately a 20.7% increase in gas delivery revenues. RG&E sought an increase of approximately \$94 million, reflecting approximately a 19.0% increase in electric delivery revenues, and an increase of approximately \$38 million, reflecting approximately a 20.9% increase in gas delivery revenues. The Companies' requested increases in electric delivery revenues would have resulted in monthly delivery bill increases, for non-heating residential electric customers using 600 kWh per month, of \$18.31, or 22.2%, for NYSEG electric customers and \$12.95, or 15.0%, for RG&E electric customers. The additional gas delivery revenues sought by the Companies would have resulted in monthly delivery bill increases, for residential gas heating customers using 100 ccf per month, of \$14.95, or 15.6%, for NYSEG gas customers and \$9.62, or 12.8%, for RG&E gas customers.

The Companies' filings categorized the major rate drivers into five groups: residual rate pressure from the Companies' last rate proceedings, which includes expiring tax credits and the amortization of regulatory liabilities; costs necessary to support its core business, which includes property tax increases and the impacts of inflation on labor; costs associated with state policy, which includes shortened depreciable service lives for gas assets, increases in energy

efficiency and other CLCPA-related costs; reliability and resiliency, including reliability capital investments, cyber security and vegetation management; and other costs, including return on equity. The largest of the identified drivers is the residual rate pressure from the last rate proceedings, which accounts for approximately ten percent of the delivery rate increase when averaged across the Companies and customer classes.

The Companies updated their respective rate filings on August 12, 2022. Staff and the intervenor parties filed testimony and exhibits on September 26, 2022, and parties filed rebuttal testimony and exhibits on October 18, 2022.

The Companies filed a notice of impending settlement negotiations on October 19, 2022. Settlement negotiations continued through June 2023, resulting in the filing of the instant Joint Proposal. During the pendency of settlement negotiations, the Companies requested, and the assigned Administrative Law Judges (ALJs) granted, several postponements of the evidentiary hearing; these requests were supported by several parties and opposed by several parties.

The Companies also notified the Secretary that they consented to commensurate extensions of the suspension period, subject to being granted a make-whole provision.⁴ On April 20, 2023, the Commission issued an order extending the suspension period through June 30, 2023, and granting a make whole from April 22, 2023, until the date of a final rate order.⁵ At the

⁴ The Companies notified the Secretary via letter filings on October 19, 2022, December 22, 2022, February 16, 2023, and April 11, 2023.

⁵ Cases 22-E-0317 et al., NYSEG and RG&E - Rates, Order on Extension of Maximum Suspension Period of Major Rate Filings (issued April 20, 2023).

June 2023 session, the Commission issued an order extending the suspension period through October 18, 2023, again granting a make-whole provision.⁶ These extensions, like the requests to postpone the evidentiary hearing, were supported by some parties and opposed by others.

III. PUBLIC NOTICE AND COMMENTS

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking (Notice) was published in the State Register on August 3, 2022 [SAPA Nos. 22-E-0317SP1, 22-G-0318SP1, 22-E-0319SP1, and 22-G-0320SP1]. The time for submission of comments pursuant to the Notice expired on October 3, 2022. In addition, in a Notice Inviting Public Comment and Announcing Public Statement Hearings, comments were solicited with a request that such comments be filed by March 31, 2023.

Two public statement hearings were held on September 15, 2022, two on September 28, 2022, and two on October 18, 2022. The hearings were well attended by the public and a total of 55 people provided comments, with many people attending all four hearings. The comments made largely were in opposition to the requested rate increases, with concerns primarily related to affordability, a lack of assistance for low- and moderate-income customers for beneficial electrification, the expiration of the moratorium on shut-offs that had been implemented during the pandemic, and problems customers have experienced with the Companies' billing process and customer service quality.

⁶ Cases 22-E-0317 et al., Order on Extension of Maximum Suspension Period of Major Rate Filings (issued June 23, 2023).